

KEVIN M. THEISSEN

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EDUCATION

Ph.D., Department of Geological and Environmental Sciences, Stanford University 2003
B.A. (with distinction, *Magna Cum Laude*), Department of Geology, Carleton College 1996

POSITIONS HELD

Professor

Department of Geology, University of St. Thomas, St. Paul, MN Sept 2017 - present

Associate Professor

Department of Geology, University of St. Thomas, St. Paul, MN Sept 2009-Sept 2017

Associate Professor and Chair of the Department

Department of Geology, University of St. Thomas, St. Paul, MN July 2012 – Jan 31, 2017

Assistant Professor, (tenure-track)

Department of Geology, University of St. Thomas, St. Paul, MN Sept 2006 – Sept 2009

Assistant Professor, (five- year limited term, non-tenure track)

Department of Geology, University of St. Thomas, St. Paul, MN August 2003-September 2006

Instructor

Summer 2001

Stanford Continuing Studies Program, Stanford, CA.

Designed and taught short course *South Bay in Motion: San Andreas Rift Structures* for continuing studies students.

Teaching Assistant

Sept. 1997 – Sept. 2001

Department of Geological and Environmental Sciences, Stanford University, Stanford, CA.

Teaching assistant for *Earth History* (instructor: Donald Lowe), *Fundamentals of Geology* (instructors: Dennis Bird, Gary Ernst, Michael McWilliams, and Kathleen Surplus), and *Stable Isotope Geochemistry* (instructor: Robert Dunbar)

Teaching Assistant

August 1996-June 1997

Biosphere 2 Center Earth Semester Program, Oracle, AZ

Teaching assistant for the interdisciplinary program *Earth Semester* (instructors: Dr. Ann Holmes, Dr. Michael Molitor, and Dr. Frank von Hippel)

TEACHING EXPERIENCE

Introductory level courses designed and taught for undergraduate students in geology and for non-majors: *The Earth's Record of Climate* (GEOL 162), *Earth History* (GEOL 130), *Introduction to Physical Geology* (GEOL 111). Enrollments: 18-85 students.

Intermediate level courses designed and taught for undergraduate students in geology and non-majors: *Regional Geology and Field Methods* (GEOL 260), *Field Methods and Sustainable Energy in Iceland* (GEOL 298), *Oceanography* (GEOL 220). Enrollments: 15-25 students.

Upper level courses designed and taught for undergraduate students in geology: *Environmental Geochemistry* (GEOL 310), *The Earth's Record of Climate* (GEOL 462), *Advanced Regional Geology and Field Methods* (GEOL 460), and *Advanced Earth History (capstone)*. Enrollments: 5-15 students.

Continuing education for senior citizens (Selim Center at UST): Developed and taught *Blue Planet: An introduction to Oceanography and Marine Geology* 9/21/16 – 10/26/16.

GRANTS

Funded External Grants

- American Chemical Society Petroleum Research Fund Undergraduate Research Grant (PRF-UG): “Reservoir heterogeneity and facies characterization of rift basin microbial carbonates: insights from the Miocene Horse Spring Formation and the Modern Lower Pahranaagat Lake”, \$70,000. With Tom Hickson Lead P.I. and Theissen, Co-P.I., **Awarded 10/24/14**
- NSF Collaborative Research (RUI): Burial of Organic Carbon in Temperate, Shallow Lakes. Co-PI with Dr. Kyle Zimmer, \$446,655, **Awarded 7/1/09**
- “Carbon sequestration in Minnesota’s wetlands: An important sink with management implications” funded by the Initiative for Renewable Energy and the Environment of the University of Minnesota, \$330,000. Awarded **6/17/05**. With co-investigators, Dr. James Cotner (lead), Dr. Shinya Sugita, and Dr. Kyle Zimmer
- “Support for research infrastructure in physics and geology” funded by the Minnesota Space Grant. \$88,813 Co-funded with: Martin Johnson (lead), Dr. Gerald Ruch, Dr. Adam Green, Dr. Thomas Hickson, Dr. Jeff Jalkio, Dr. Melissa Lamb, and Dr. Marie Lopez del Puerto.

Funded External Work Contracts

- Paleolimnological study in the Comfort Lake-Forest Lake Watershed District, Chisago Co., MN, Phase I and II. With Dr. Mark Edlund, St. Croix Watershed Research Station. \$65,688 in total; **Funded 2/16/16**.
- Paleolimnological study in the Comfort Lake-Forest Lake Watershed District, Chisago Co., MN, Phase II [revision of Phase II]. With Dr. Mark Edlund, St. Croix Watershed Research Station. \$44,250 in total; **Funded 1/3/19**.

Submitted External Grant Proposals – Not funded

- “Interdisciplinary Investigations of the Roman Villa Site on St. Clement Island, Croatia: Archaeological and Environmental Research and Study” submitted to the Gladys Kriebel Delmas Foundation, 2/14/20, Total request of \$25,000 Dr. Ivancica Schrunck of the History Department lead PI, Theissen, co-PI. Not funded, decision sent 4/3/20. With COVID-19 crisis, the Foundation did not support travel to Croatia. Encouraged to reapply.
- National Geographic Society Committee for Research and Exploration (CRE) Grant Proposal “Detailed Holocene paleoclimate records and the development of an accurate paleothermometer for southern Patagonia” grant pre-application request for \$14,200 was approved April 22, 2008. Full grant proposal with updated \$18,564 request submitted 7/11/08. Received good to excellent ratings by three reviewers but **not funded**.
- “Land of 10,000 (changing) Lakes: Understanding and protecting Minnesota’s natural and cultural legacy”, NCUR/Lancy Initiative. With co-investigators Dr. Jennifer Cruise, Dr. Kyle Zimmer, Dr. Paul Lorah, and Heid Erdrich. \$40,000 requested (grant submitted 8/11/05)
- NSF RUI/MRI Acquisition of a Continuous-Flow Combustion/GC Isotope Ratio Mass Spectrometer with an Environmental Analyzer (EA) for Climate Change Research in Chemistry and Geology. Co-PIs: Rebecca Bilek, Anthony Steyermark, Kevin Theissen, and Kyle Zimmer. \$310,741 requested (submitted 1/22/04, grant was given high ratings by NSF reviewers but not awarded due to lack of support for laboratory technician).

Funded Internal Grants

- UST Young Scholars Grant to L. Boccignone and K. Theissen, Lower Pahranaagat Lake project, \$5450, Awarded 3/23/20
- UST Ignite Research Scholars Grant to A. Phan and K. Theissen, The Paleolimnology of Lake Kleifarvatn \$3100, Awarded 5/5/20
- UST Young Scholars Grant to A. Hensley and K. Theissen Tephrochronology of lake cores from the Breiddalur valley in Iceland \$5250 Awarded 3/13/19.
- UST Collaborative Inquiry Grant to E. Lynch and K. Theissen. School Lake; Evaluating Past and Present Ecosystem Health. \$1625. Awarded 11/28/18.

- UST Collaborative Inquiry Grant to Y. Nunez and K. Theissen. Tephrochronology in Northern Iceland. \$1625. Awarded 11/28/18.
- CAS SOLV Grant Collaborative Community-Engaged Scholarship, Center for Health, Wellness, and Sustainability. “Investigating the impact of innovative pedagogies on sustainability literacy” faculty co-director with Elise Amel and Mike Klein. \$146,600 total (9/2018 – 8/2021)
- UST Young Scholars Grant to J. Duggan and K. Theissen. Use of an SEM to Explore Potential Microscale Microbial Features in Modern Lacustrine Systems. \$4950 Awarded 3/16/18.
- UST Collaborative Inquiry Grant to S. Horns and K. Theissen. An Extended Record of Climate Change in the American Southwest: A paleoclimate analysis of the Great Basin. \$1500. Awarded 5/5/16.
- UST Faculty Partnership Grant to W. Cavert and K. Theissen. Climate Science and Climate History. \$2277. Awarded 4/26/16.
- UST Young Scholars Grant to J. Frahm and K. Theissen. A Sediment Geochemical Investigation of the Lower Pahrangat Lake: Deciphering Hydrological Change in the Great Basin during the Medieval Climate Anomaly and Beyond. \$4750. Awarded 3/21/14.
- UST Collaborative Inquiry Grant to N. Hermann and K. Theissen. Exploring the Geochemistry of Minnesota Lakes: A Study of a Three-Lake System, Scott County, MN. \$1500. Awarded 11/12.
- NSF-STEP funded sub-grant: “Proposal for NSF-STEP Funds To Support a Joint Geology and Biology GIS Curriculum Development Workshop” \$5000. Awarded 3/12/10.
- UST Collaborative Inquiry Grant to B. Czeck and K. Theissen (Patagonia work), \$2000. 2009
- UST Faculty Development Research Assistance Grant, “Detailed Holocene paleoclimate records and the development of an accurate paleothermometer for southern Patagonia” \$5700. Awarded 4/15/08.
- UST Bush Foundation Dissemination Grant “Presentations of student-faculty collaborative research in geology at the Institute for Lake Superior Geology meeting” \$1889, awarded 4/12/07.
- UST Young Scholars Grant to K. McNulty and K. Theissen. Ostracods as indicators of past ecological change in Lake Christina, \$4500. Awarded 4/17/07.
- UST Collaborative Inquiry Grant to M. Pikus and K. Theissen. Trace element and isotopic studies of Lake Amarga sediments, \$2000. Awarded 12/1/06.
- UST International Education Center awarded \$2000 grant for travel to Iceland with Engineering professor Camille George, fact-finding for interdisciplinary course trip on geoenvironment. Awarded 7/27/06.
- UST Collaborative Inquiry Grant to C. Connelly and K. Theissen. Research on the chemistry of warm intervals in “Snowball” events, Death Valley Region, \$1500. Awarded 12/13/05.
- UST Collaborative Inquiry Grant to M. Kendall and K. Theissen. Patagonia research, \$1500. Awarded 12/13/04.
- UST Collaborative Inquiry Grant to C. Hill and K. Theissen. Patagonia research, \$1500. Awarded 12/13/04.
- UST Bush Foundation Dissemination Grant, “Presenting the results of student-faculty collaborative research in geology: the ‘Snowball Earth’ and ‘Bitter Spring Quad’ projects” \$2855. Awarded 4/04.
- UST Young Scholars Grant to R. Sharma and K. Theissen. “Diatoms as an indicator of past climate in relation to alternative equilibria in shallow lakes”, \$4500. Awarded 4/04.
- UST Faculty Development Research Assistance Grant, “Lake sediments as a window on the climatic history of Tierra del Fuego since the last ice age”, \$3900. Awarded 12/03
- Stanford University McGee Foundation Award, “Alkenone molecular fossils from Lake Titicaca sediments”. \$5000. Awarded 5/1/99.
- Stanford University McGee Foundation Award, “Investigation of molecular fossils from Lake Titicaca, Bolivia and Peru”. \$5000. Awarded 5/1/98.

PUBLICATIONS (undergraduate student authors underlined)

Published Articles

Theissen, K.M., Hickson, T.A., Brundrett, A.L., Horns, S.E., and Lachniet, M. 2019. A record of Mid- and Late Holocene paleohydroclimate from Lower Pahrangat Lake, southern Great Basin. *Quaternary Research*, p. 1 – 13, doi: [10.1017/qua.2019.11](https://doi.org/10.1017/qua.2019.11)

- Hickson, T.A., **Theissen, K.M.**, Lamb, M.A., and Frahm, J. 2018. Lower Pahrnagat Lake: Modern analogue for extensive carbonate deposition in paleolakes of the Miocene Rainbow Gardens and Horse Spring Formations. *Journal of Paleolimnology*, 59, 39-57, DOI: 10.1007/s10933-016-9923-1
- Ramstack Hobbs, J., Hobbs, W.O., Edlund, M.B., Zimmer, K.D., **Theissen, K.M.**, Hoidal, N., Domine, L., Hanson, M., Herwing, B., and Cotner, J. 2016. The legacy of large regime shifts in shallow lakes. *Ecological Applications*, 26, 2662-2676, DOI 10.1002/eap.1382
- Hobbs, W.O., **Theissen, K.M.**, Hagen, S.M., Bruchu, C.W., Czeck, B.C., Hobbs, J.M.R., and Zimmer, K.D. 2014. Persistence of clear-water, shallow lake ecosystems: the role of protected areas and stable aquatic food webs. *Journal of Paleolimnology*, 51, 405-420, DOI 10.1007/s10933-013-9763-1
- Theissen, K.M.**, Hobbs, W.O., Hobbs, J.M.R., Zimmer, K.D., Domine, L.M., Cotner, J.B., and Sugita, S., 2012. The altered ecology of Lake Christina: A record of regime shifts, land-use change, and management from a temperate shallow lake. *Science of the Total Environment*, 433, 336-346.
- Hobbs W.O., Hobbs J.M.R., Lafrancois T., Zimmer K.D., **Theissen K.M.**, Edlund M.B., Michelutti N., Butler M.G., Hanson M.A., Carlson T.J., 2012. A 200-year perspective on alternative stable state theory and lake management from a biomanipulated shallow lake. *Ecological Applications*, 22, 1483-1496.
- Theissen, K.M.**, 2011. What do U.S. students know about climate change? *EOS Transactions*, 92, 477-478.
- Theissen, K.M.**, 2008. The Earth's Record of Climate: A focused-topic introductory course in paleoclimatology. *Journal of Geoscience Education*, 56, 342-353.
- Theissen, K.M.**, Dunbar, R.B., Rowe, H.D., and Mucciarone, D.A., 2008. Multidecadal- to century-scale arid episodes on the northern Altiplano during the middle Holocene. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 257, 361-376.
- Theissen, K. M.**, Zinniker, D. A., Moldowan, J. M., Dunbar, R. B., and Rowe, H. D., 2005. Pronounced occurrence of long-chain alkenones and dinosterol in a 25,000 year lipid molecular fossil record from Lake Titicaca, South America. *Geochimica et Cosmochimica Acta*. 69, 623-636.
- Bostick, B. C., **Theissen, K.M.**, Dunbar, R., Fendorf, S., and Vairavamurthy, M.A., 2005. Record of Redox Status in Sediment Laminations from Lake Titicaca : A Sulfur K-edge X-ray Absorption Near Edge Structure (XANES) Study. *Chemical Geology*, 219, 163-174.
- Warnke, D. A., Richter, C., Florindo, F., Damuth, J. E., Balsam, W. L., Strand, K., Ruikka, M., Juntala J., **Theissen, K.**, and Quilty, P., 2004. The Plio-Pleistocene section of ODP Site 188-1165, Prydz Bay, Antarctic continental margin: a high-resolution integrated-stratigraphy committee (HIRISC) report. In: Cooper, A.K. and O'Brien, P.E., (Eds.) *Proc. ODP, Sci. Res.*, 188, 38 p. [Available Online and on CD-ROM].
- O'Brien, P. E., Cooper, A. K., Erwin, P., Florindo, F., Handwerker, D., Lavelle, M., Passchier, S., Pospichal, J. J., Quilty, P. G., Richter, C., **Theissen, K. M.**, Whitehead, J. M., 2004. Prydz Channel Fan and the history of extreme ice advances in Prydz Bay. In: Cooper, A.K. and O'Brien, P.E., (Eds.) *Proc. ODP, Sci. Res.*, 188, 32 p. [Available Online and on CD-ROM].
- Halsing, D.L., **Theissen, K.M.**, and Bernknopf, R.B., 2004, A cost-benefit analysis of The National Map. U.S. Department of the Interior, U.S. Geological Survey Circular 1271. 40 p. [Available Online].
- Halsing, D.L., **Theissen, K.M.**, and Bernknopf, R.L., 2004. The National Map: Benefits at what cost? *Geospatial Solutions*, 14, 25-31.
- Theissen, K. M.**, Dunbar, R. B., Cooper, A. K., Mucciarone, D. A., and Hoffmann, D., 2003. The Pleistocene history of the East Antarctic Ice Sheet: stable isotopic results from ODP Site 1167. *Global and Planetary Change*. 39, 227-256.
- Theissen, K.M.**, Dunbar, R.B., and Cooper, A.K., 2003. Stable isotopic measurements of sedimentary organic matter and *N. pachyderma* (s.) from Site 1166, Prydz Bay continental shelf. In Cooper, A.K., O'Brien, P.E., and Richter, C. (Eds.), *Proc. ODP, Sci. Results*, 188, 11 p. [Available Online and on CD-ROM].
- Rowley, P.D., Cunningham, C.G., Steven, T.A., Workman, J.B., Anderson, J.J., and **Theissen, K.M.** 2002. Geologic map of the Central Marysvale Volcanic Field, southwestern Utah. U.S. Geological Survey, Geologic Investigations Series I-2645-A. [Geologic map]

Technical Reports

- Ramstack Hobbs, J.M., M.B. Edlund, **K.M. Theissen**, S.P. Duncanson, and G.R. Houle. 2017. A paleolimnological study in the Comfort Lake Forest Lake Watershed District. Final report submitted to Comfort Lake

Forest Lake Watershed District. St. Croix Watershed Research Station, Science Museum of Minnesota, Marine on St. Croix, Minnesota, 55047. published online:
http://www.cflwd.org/documents/FinalDRAFTReport_Sept222017.pdf

Peer-reviewed Curricula and Classroom Activities

- Theissen, K.M., 2014. Exploring El Nino, *On The Cutting Edge* Innovative Approaches to Teaching Sedimentary Geology, Geomorphology, and Paleontology:
<http://serc.carleton.edu/NAGTWorkshops/sedimentary/SGP2014/activities/85378.html>
This activity was peer-reviewed and accepted into the *On the Cutting Edge* Exemplary Teaching Activity Collection.
- Theissen K.M., 2014. An abrupt global climate change event in Earth history—Evidence from the ocean. *On The Cutting Edge* Innovative Approaches to Teaching Sedimentary Geology, Geomorphology, and Paleontology: <http://serc.carleton.edu/NAGTWorkshops/sedimentary/SGP2014/activities/85303.html>
This activity was peer-reviewed and accepted into the *On the Cutting Edge* Exemplary Teaching Activity Collection.
- Theissen, K.M. 2011. How effective is a remediation system at a regional landfill? *On The Cutting Edge* Professional Development for Geoscience Faculty Teaching Geochemistry:
<http://serc.carleton.edu/NAGTWorkshops/geochemistry/activities/52319.html>
This activity was peer-reviewed and accepted into the *On the Cutting Edge* Exemplary Teaching Activity Collection 1/23/14.
- Theissen, K.M. 2010. Greenhouse Emissions Reduction Role-Play Exercise. SERC Starting Point: Teaching Entry Level Geoscience: <http://serc.carleton.edu/introgeo/roleplaying/examples/34147.html>
Accepted into the *On the Cutting Edge* Reviewed Teaching Activity Collection 3/11/14.

Dissertation/Thesis

- Theissen, K.M., 2003. Geochemical Investigations of Quaternary Paleoclimate and Environmental Change from Lake Titicaca, South America and Prydz Bay, Antarctica, Stanford Ph.D. Dissertation, 205 p.
- Theissen, K.M., 1996. Origin of carbonate sedimentary breccias of the Middle Wallace Formation: A further study. Geology senior integrative comprehensive exercise thesis. 63 p.

CONFERENCE PROCEEDINGS and PRESENTATIONS

- Lynch, E. and Theissen, K.M. 2020. Bone Lake evaluating past and present ecosystem health. *Scholars at the Capitol*, St. Paul, MN Minnesota State Capitol Building. Presentation given: 3/11/20.
- Theissen, K.M. 2019. ‘How Can I Help?’. Evidence of changing student attitudes about climate change at a private four-year liberal arts college. Earth Educators Rendezvous, Nashville, TN. 7/17/19.
- Nunez, Y., Theissen, K.M., Thole, J., Swanson, R., Hensley, A., and Thompson, T. 2019. Tephrochronology of Lake Myvatn, Iceland. Geological Society of America *Abstracts with Programs*. Vol. 51, No. 4
doi:10.1130/abs/2019CD-329818 Presentation given: 5/15/19
- Theissen, K.M., Paces, J.B., and Duggan, J.P. 2018, Strontium and uranium isotopes from lacustrine carbonates as a paleohydrologic tracer in arid wetlands: An example from the Pahrangat Valley, Nevada. AGU Fall Meeting Abstract. Presentation Given 12/10/18, Washington, D.C.
- Duggan, J.P., Theissen, K.M., Thole, J., Hickson, T.A., Stevens, E.W., and Brundrett, A. 2018, An Investigation of Holocene Microbial Microstructures from Sediments in Lower Pahrangat Lake, Nevada AGU Fall Meeting Abstract. Presentation Given: 12/10/18, Washington, D.C.
- Theissen, K.M., Hickson, T.A., Brundrett, A.L., and Horns, S.E. 2018. “A 5800-year record of paleohydroclimate from Lower Pahrangat Lake, southern Great Basin Presentation given at “Continental archives of Past Global Changes: from Quaternary to Anthropocene” Symposium, 5/24/18, University of Minnesota, Minneapolis, MN

- Theissen, K.M., Hickson, T.A., Brundrett, A.L., and Horns, S.E.** 2017. A 5600-year record of paleohydroclimate from Lower Pahrnagat Lake, southern Great Basin Geological Society of America *Abstracts with Programs*. Vol. 49, No. 6 doi: 10.1130/abs/2017AM-305857.
- Theissen, K.M.** and Hickson, T.A. 2017. Science for the common good: an undergraduate geoscience program partners with Watershed Districts in the Twin Cities Metro Area Geological Society of America *Abstracts with Programs*. Vol. 49, No. 6 doi: 10.1130/abs/2017AM-305620. Presentation given: 10/25/17
- Horns, S.E., Theissen, K.M., Brundrett, A.L.,** and Hickson, T.A. 2017. New extended record of Holocene paleoecology and paleohydrology from Lower Pahrnagat Lake, Great Basin. *GSA Abstracts with Programs* v. 49, No. 2 doi: 10.1130/abs/2017NE-291588
- Brundrett, A.L., Theissen, K.M., Horns, S.E.,** and Hickson, T.A. 2017. Microbialite signatures in a Great Basin lake core record of the past ~5500 yr. *GSA Abstracts with Programs* v. 49, No. 2 doi: 10.1130/abs/2017NE-291255
- Duncanson, S.P., Theissen K.M., Houle, G.R.,** and Edlund, M.B. 2017. Drastic sedimentation changes in a Twin Cities metro area watershed on the urban-rural boundary. *GSA Abstracts with Programs* v. 49, No. 2 doi: 10.1130/abs/2017NE-291345
- Theissen, K.M.** 2017. Land-use change, regime shifts, and carbon cycle dynamics: pre-settlement to recent histories from west-central MN prairie shallow lakes Minnesota Section of the American Institute of Profession Geologists Meeting, Presentation given 3/7/17, Roseville, MN
- Houle G., Duncanson, S.P., Theissen K.M.,** and Edlund, M.B. 2016. Comfort Lake-Forest Lake Watershed investigations using geochemical analyses. St. Croix River Research Rendezvous, Marine-on-St. Croix, MN, 10/10/16.
- Zimmer, K.D., L.E. Nolby, M.A. Hanson, B.R. Herwig, W.O. Hobbs, J.M. Ramstack Hobbs, and **Theissen, K.M.** Is Island Biogeography A Good Model For Biodiversity In Shallow Lakes? Seventh North American Duck Symposium, Annapolis, MD, 2/16. [published online]
- Theissen, K.M.** and Hickson, T.A. 2015. They Don't Sell Ice in Iceland! Lessons learned on a field geology course in the land of fire and ice. Geological Society of America Annual Meeting, Baltimore, MD, 11/2/15, *GSA Abstracts with Programs*, v.47, n.7, p.250
- Hickson, T.A., **Theissen, K.M.**, and Lamb, M.A. 2015. Paleolakes of the Miocene Horse Spring Formation: Extensive microbially mitigated carbonate deposition in a complex rift setting. Sixth Int'l Limnogeology Congress-Abstract Volume, Reno, NV, June 15-19, 2015. USGS Open File Report 2015-1092, pp. 88-89.
- Hickson, T.A., **Theissen, K.M.**, and Frahm, J. 2015. Towards a paleohydrological record of the Holocene, Lower Pahrnagat Lake, central Nevada. . Sixth Int'l Limnogeology Congress-Abstract Volume, Reno, NV, June 15-19, 2015. USGS Open File Report 2015-1092, p. 90.
- Frahm, J.Y. and Theissen, K.M.** 2014. A late Holocene paleohydrological record from Lower Pahrnagat Lake, central Nevada. *Geological Society of America Abstracts with Programs*,v. 46, n. 6, p. 745.
- Hickson, T.A., Gastaldo, R.A., Gran, K., MacDonald, H., McDaris, J.R., and **Theissen, K.M.** 2014. Getting together: reporting on an interdisciplinary workshop for sedimentary geologists, paleontologists, and geomorphologists. *Geological Society of America Abstracts with Programs*,v. 46, n. 6, p. 437.
- Stevens, E., McNamara, S., Terres, A., Hickson, T.A., and **Theissen, K.M.** 2014. Modern and ancient microbialite deposits from a shallow alkaline lake: Lower Pahrnagat Lake, central Nevada. *Geological Society of America Abstracts with Programs*,v. 46, n. 6, p. 726.
- Theissen, K.M.**, Hickson, T.A., and Stevens, E.W., 2014. The Pahrnagat Lakes Project: Successfully incorporating original research into an undergraduate field geology course. *Geological Society of America Abstracts with Programs*, v. 46, n. 5, p.76.
- Theissen, K.M.**, Frahm, J.Y., and Edwards, C.L. 2013. A 2400-year $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ stable isotopic record from Lower Pahrnagat Lake suggests hydrological reorganization during the Medieval Climate Anomaly. *Geological Society of America Abstracts with Programs*,v. 47, n. 7, p. 552.
- Hickson, T., **Theissen, K. M.**, Lamb, M., Frahm, J. Y., Pomerleau, C., Edwards, C.L., and Chatmas, E. 2013. Lower Pahrnagat Lake: Modern analogue for lacustrine carbonate microbial facies of the Horse Spring Formation? *Geological Society of America Abstracts with Programs*, v. 47, n. 7, p. 674.

- Hermann, N.W., Theissen, K.M., and Hobbs, W.O. 2013. Caught in the middle: Evaluating the historical condition and potential impairment of Upper Prior Lake, Scott County, MN. Geological Society of America Abstracts with Programs, v. 47, n. 7, p. 781.
- Anderson, H., MacGregor, K., Myrbo, A., Riihimaki, C., and Theissen, K. 2013. A historical record of climate change and human impact in Glacier National Park, Montana, USA: Using lacustrine sediment to understand geomorphic, climatic, and anthropogenic influences on a glaciated alpine valley. Geological Society of America Abstracts with Programs, v. 47, n. 7, p. 347.
- Hobbs, J.M.R., Hobbs, W.O., **Theissen, K.**, Edlund, M.B., Zimmer, K.D., Domine, L.M., and Cotner, J.B. 2013. A 150-year perspective on stable state theory in shallow lakes from the Prairie Pothole region. Ecological Society of America meeting, Minneapolis, MN August 6.
- Hobbs, W.O., Zimmer, K.D., Hanson, M.A., Domine, L.M., Hobbs, J.M.R., **Theissen, K.**, and Cotner, J.B. 2013. Trajectories of long-term ecological change in shallow lakes: allochthonous drivers and autochthonous stability. Ecological Society of America meeting, Minneapolis, MN August 6.
- Cotner, J.B., Zimmer, K.D., Hobbs, W.O., **Theissen, K.**, and Domine, L.M. 2013. Terrestrial-aquatic linkages in Prairie Pothole lakes in alternative stable states. Ecological Society of America meeting, Minneapolis, MN August 6.
- Hobbs, J.M.R., Hobbs, W., LaFrancois, T., Edlund, E., **Theissen, K.M.**, Zimmer, K., and Hanson, M., 2012. A long-term perspective on anthropogenic activities and management strategies in a prairie wetland. Presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Theissen, K.M.**, Hobbs, W., Hobbs, J.M.R., Zimmer, K.D., Domine, L., and Cotner, J. 2012. A 200-year record of regime shifts, land-use change, and management from a prairie wetland. GSA Abstracts with Programs v. 44, n.7, p.358.
- Chatmas, E., Kennedy-Harper, A., Theissen, K.M., Hermann, N.W., and Hickson, T. 2012. Lower Pahranaagat Lake as a modern analog for ancient lacustrine microbialite facies of the Miocene Horse Spring Formation in southern Nevada. GSA Abstracts with Programs v. 44, n.7, p.438.
- Theissen K.M.**, 2011. What do our students know about climate change? GSA Abstracts with Programs, v. 43, n. 5., p.67
- Hermann, N.W., Theissen, K.M., and Chatmas, E.S., 2012. The good, the bad, and the hypereutrophic: a historical sedimentary and geochemical analysis of two connected suburban lakes in Scott County, MN. GSA Abstracts with Programs v. 44, n.7, p.564.
- Theissen, K.M.**, Hobbs, W., Hobbs, J.M.R., and Cotner, J.B. 2011. A post-settlement transition towards phytoplankton dominance in shallow west-central Minnesota lakes. GSA Abstracts with Programs v. 43, n. 5, p.225
- Czeck, B.C., Hagen, S.M., Bruchu, C.W., Theissen, K.M., Hobbs, W., and Hobbs, J.M.R. 2011. A multi-century biogeochemical record from a small shallow lake: evidence for a successful conservation effort. GSA Abstracts with Programs v. 43, n. 5, p.461
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- Theissen, K.M. 2007.** Paleoecology of Shallow Lakes in the Prairie Pothole Region of Minnesota: Preliminary Geochemical Results, Minnesota Section of the American Institute of Profession Geologists Meeting, St. Paul, MN (3/6/07)
- Theissen, K.M., 2006.** The Earth's Record of Climate: A focused-topic introductory course in paleoclimatology. *Eos Trans. AGU*, 87, Fall Meet. Suppl.
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- Theissen, K.M. and Dunbar, R.B., 2005.** Evidence for a possible solar influence on modern and mid-Holocene climate from Lake Titicaca, South America. *Eos Trans. AGU*, 86, Fall Meet. Suppl.
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- Theissen, K.M. 2005.** "Paleoindicators in Lake Sediments: Examples from the Americas", Carleton College Geochemistry of Natural Waters seminar (5/24/05)
- Holter, S.A., Theissen K.M., Hickson, T.A., and Bostick, B. 2004.** Using Gamma ray and Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) to Evaluate Elemental Sequences in Cap-carbonates and Cap-like Carbonates of the Death Valley Region. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl.,
- Theissen, K.M. 2004.** A 25,000 year record of paleoecological change from Lake Titicaca, South America" Dartmouth College Department of Geology seminar (7/16/04)
- Hannon, M., Lindberg, J., Barrie, C., Johnson, T., Donatelle, A., Goeden, J., Holter, S., Hickson, T., Theissen, K., 2004.** Using Gamma Spectrometry To Determine U, Th, K Signatures in Cap Carbonates Of The Death Valley Region And Their Relation To Other Carbonates. *Eos Transactions*, 85, Spring Meet. Suppl.

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- Theissen, K.M.** 2003. Exploring Holocene Paleoclimates of Tierra del Fuego Using Lake Records” University of Minnesota, Duluth Large Lakes Observatory Seminar (10/7/03)
- Theissen, K.M.** 2003. A 25,000 year record of paleoecological change from Lake Titicaca, South America” University of Minnesota, Duluth, Geology Department Lecture Series (10/7/03) and University of Minnesota, Twin Cities, Quaternary Paleoclimate Seminar Series (10/22/03).
- Theissen, K.M., Zinniker, D.A., Moldowan, J.M., and Dunbar, R.B.,** 2002. A 30,000 year molecular fossil record of ecological change from Lake Titicaca, South America. *Eos Transactions*, 83, F906.
- Theissen, K. M., Dunbar, R. B., Cooper, A. K., and Mucciarone, D. A.,** Late Pliocene-Pleistocene climate change in the Prydz Bay region: Stable isotopic records from ODP Leg 188. 2001. *Eos Transactions*, 82, F800.
- Theissen, K.M., Dunbar, R.B., Cooper, A.K., and Mucciarone, D.A.,** Stable isotopic records of Pleistocene climate variability in the Prydz Bay region, from ODP Site 1167. In: F. Florindo and A.K. Cooper (eds.), *Extended abstracts for the International ANTOSTRAT symposium on: The Geologic Record of the Antarctic Ice Sheet from Drilling, Coring and Seismic Studies*. *Quaderni di geofisica* 16, 183-184. Presentation given 9/9/01, Erice, Italy
- Theissen, K. M., Zinniker, D. A., Moldowan, J. M., and Dunbar, R. B.,** 2000. An organic geochemical study of Holocene environmental change at Lake Titicaca, South America. *Eos Transactions*, 81, F710.
- Theissen, K. M., Dunbar, R. B., Rowe, H. D., Mucciarone, D. A., Villinski, J., Brassell, S., Fritz, S., Baker, P., and Seltzer, G.,** 1999. Analysis of laminated sediments and lipid biomarkers from Lake Titicaca, South America as indicators of Holocene paleoclimatic variation, *Eos Transactions*, 80, F483-484.
- Theissen, K. M., and Wallace, C. A.,** 1996. Origin of the Wallace Formation, Belt Supergroup, Montana and Idaho, *GSA Abstracts with Programs*, 28, A-278.

WORKSHOP and SHORT COURSE PRESENTATIONS

- “Using GeoMapApp, Google Earth, Ocean Data View, and similar resources in marine geology and other SGPPM courses” Innovative Approaches to Teaching Sedimentary Geology, Geomorphology, and Paleontology “workshop, 6/17/14 and 6/18/14.
- Invited Presentation, “Greenhouse Emissions Reduction Role-Play Exercise” Climate Literacy and Energy Awareness workshop “Communicating Climate Science in the Classroom”. 4/5/12
- Invited Presentation, “Cooperative learning in a geology course: a role-playing exercise” UST Summer Faculty Development Teaching Workshop, 8/8/08.
- Invited Presentation “The Geology Department Assessment Plan” UST Bush Foundation “Department and Program Assessment” workshop, 1/8/07
- Invited Presentation, “A carbon dioxide data exercise for use in a large enrollment geology course” NSF supported workshop “Integrating Math and Science in Division Courses” at UST, 5/24/06

WORKSHOP and SHORT COURSE PARTICIPATION

- UST teaching workshop, “Online Elements for Face-to-Face Courses”, 4/27/18.
- UST Office of Sustainability workshop, “Enriching Course Content Through Sustainability” 5/23/17.
- UST teaching workshop “Inclusive Instruction: Transparency and its Impact on Learning” 12/2/16
- On the Cutting Edge Workshop “Innovative Approaches to Teaching Sedimentary Geology, Geomorphology, and Paleontology, Saint Paul, MN, “6/16/14 – 6/20/14 [invited co-Convener for the workshop]
- Geological Society of America Short Course: “Teaching Energy: Important But Unfamiliar Concepts, Emerging Themes & Grand Challenges” Denver, CO, 10/26/13.
- National Association of Geoscience Teachers (NAGT) On the Cutting Edge Workshop “Teaching Climate Change: Insight From Large Lakes” Duluth, MN, 6/19/12 – 6/20/12.
- UST STEP program funded workshop: “Geology and Environmental Science GIS Curriculum Development Workshop” 8/3/10 – 8/5/10 and 8/10/10 (both participant and organizer).

- Geological Society of America Short Course: “Teaching Climate Change and Earth History Using Ocean Drilling Data in Introductory Geoscience Courses” Portland, OR, 9/17/09.
- UST Faculty Development January Seminar: “Purple, Grey, and Green II: Infusing Sustainability into the UST Curriculum”, 1/10/08 -1/11/08.
- “Improving the curricular focus, pedagogies, and lab experiences in introductory, focused-topic geology courses” UST, 7/23/07-7/24/07.
- National Association of Geoscience Teachers (NAGT) workshop, “Teaching the Ocean System using new research techniques: Data, Models, and Visualizations”, University of Washington, Seattle, 7/6/05-7/9/05.
- Bush grant faculty workshops: “Its all in our heads” and “The new assessments”, UST, 8/11/04.
- NAGT Early Career Faculty Workshop: “Teaching, Research, and Managing Your Career” College of William and Mary, Williamstown, VA and National Science Foundation, Washington D.C. 6/12/04-6/17/04.
- UST Faculty Development Spring Workshop: “Enhancing Course Planning to Improve Student Learning”, 4/19/04.
- NAGT workshop “Designing Effective and Innovative Courses in the Geosciences” Hamilton College, Clinton, NY, 6/27/03-6/31/03.

HONORS

- University of St. Thomas Undergraduate Research Award for Faculty, 2017
- Schlanger Ocean Drilling Program Fellow, 2001-2002

SERVICE and CITIZENSHIP

University Service

HHMI Inclusive Excellence Advisor	May 2020 - present
UST College of Arts and Sciences Strategic Planning Committee	Sept. 2019 - present
Chair Curriculum Implementation Committee Global Perspectives Flag Implementation Sub Committee	August 2019 – May 2020
UST Safety Communication Working Group	Sept. 2018 - present
Dougherty Family College clinical faculty search committee (environ. geology)	Nov. 2017 - present
UST Undergraduate Research Board	Sept. 2015-May 2019
UST Environmental Science Executive Committee member	Sept. 2013 – present
UST Science Division Environmental Science Program Committee	Sept. 2003 - 07
UST Faculty Affairs Committee	Sept. 2011 – May 2012
UST Ad Hoc Council on African-American Issues	June 2006 - present
UST College of Arts and Sciences Ad Hoc Committee on Assessment	Oct. 2006 - 08
UST Science Technology Engineering and Mathematics (STEM)Project Advisory Committee (proposal preparation, planning, and development of NSF-funded Summer Academy program)	Sept. 2003 - 2009
UST Science Scholars Committee member	Sept. 2005 – May 2012
Goldwater Scholarship Committee member	Sept. 2006 – May 2012
Chair of UST Goldwater Scholarship Committee	Aug. 2007 – May 2012
UST Faculty Senator	Sept. 2005 -May 2006
Child Care Task Force	Oct. 2014 – May 2016

Professional Service

- Manuscript reviewer for journals: *Nature Scientific Reports*, *Freshwater Biology*, *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*, *Science of the Total Environment*, *Sedimentary Geology*, *The Journal of Geochemical Exploration*, *Environmental Science and Pollution Research*, and *Proceedings of the Ocean Drilling Program*
- Research proposal reviewer for *The National Science Foundation* (both mail-in reviewer and panelist), *The American Chemical Society-Petroleum Research Fund*, *The Research Council of Norway*, *Fondo Nacional de Desarrollo Cientifico y Tecnologico (FONDECYT)Gobierno de Chile*, and *University of Minnesota’s Water Research Program*.
- Textbook reviewer for publishers *Pearson* and *Springer-Nature*

- Reviewer of numerous pedagogical materials for the *Climate Literacy and Energy Awareness Network (CLEAN)* website.
- Antarctic Drilling Program Scientific Measurements Advisory Panel member 2004-2006
- Service to Science Education Resource Center (SERC) (reviewer of pedagogical materials and evaluation of geoscience education website).
- Invited external program reviewer for Natural Science program at College of Saint Benedict- Saint Johns University, January, 2015.
- Invited external reviewer of promotional dossiers for faculty at various universities.

Invited Presentations to the Public

- “Natural Archives from Shallow Lakes, Wetlands, and Springs of the Great Basin Show Evidence of Extended Periods of Drought over the Past 6000 Years” Geological Society of Minnesota meeting, University of Minnesota 11/11/19)
- “Recognizing and reducing our collective impact on ocean life” Invited presentation For Citizens Climate Lobby, White Bear Lake, MN (6/4/19)
- “Recognizing and reducing our collective impact on ocean life” Invited presentation For Citizens Climate Lobby, Coon Rapids, MN (6/8/17)
- “Recognizing and reducing our collective impact on marine life” Citizens’ Climate Lobby, Maple Grove, MN (6/7/16)
- “What Minnesota Lakes Tell Us About the Last 10,000 Years”, Geological Society of Minnesota, Minneapolis, MN (11/17/14)
- “Lessons From the Geologic Record of Climate”, Anoka-Ramsey Community College, Cambridge, MN (4/22/11)
- “Climate Change, What We Know and What We Can Do About It”, UST Aquinas Scholars Symposium, (4/21/10)
- Invited keynote speaker, “Global Warming: What We Know and What We do Not Know” Event for the North Central Program For Science and Technology and The University of St. Thomas Department of Theology, (12/3/07)
- Invited presentation on climate change to Interfaith church group, Unitarian Universalist Church of White Bear Lake, MN (10/9/06)
- “From Greenhouse to Icehouse to ?: The Geological Record of Climate and an Uncertain Climate Future”, Twin Cities Chapter American Meteorological Society, Chanhassen, MN (5/17/05)
- “The Science of Tsunami” UST Day of Remembrance and Hope for tsunami victims and their families (2/15/05)
- “The Geological Perspective on Climate Change” UST Symposium on Environmental Affairs (3/30/04)

Other Citizenship and Community Service

- Volunteer geology teacher for Hale Community School Oct 2017 - present
- Volunteer event coordinator for geology events at *Market Science* Summers 2015-2017
- Faculty liaison, UST Minority Students in Science club Sept. 2007 – June 2012
- Faculty liaison, UST Geology club Sept. 2004 – Sept 2013
- Faculty mentor, UST Multicultural Student Services (MSS) Sept. 2005 - present
- Faculty workshop facilitator, UST MSS Linkages program Aug. 2007 - 2009
- Volunteer geology teacher for National Youth Sports Program, July, 2005
- Volunteer geology teacher for Groveland Park Elementary School, Jan., 2008
- Invited lectures on past and future climate change for several UST biology, physics, theology, and engineering courses
- Contributed articles on Geology and sustainability in Iceland to *St. Thomas* and *CAS Spotlight* magazines
- Narrator for NOAA Science on a Sphere dataset “Acidifying Oceans: Oceans and Climate Change”, shown at science museums nationwide that host the *Science on a Sphere* display.

PROFESSIONAL MEMBERSHIPS

- American Geophysical Union
- Geological Society of America
- National Association of Geoscience Teachers