

Publications List-Joseph A. Mason

Updated 5/2009

1. Peer-Reviewed Journal Articles

- Zhou, Y., Lu, H., Zhang, J., **Mason**, J.A., Zhou, L.P. 2009. Luminescence dating of sand-loess sequences and response of Mu Us and Otindag sand fields (North China) to climatic changes. *Journal of Quaternary Science* 24: 336-344.
- Mason**, J.A., Swinehart, J.B., Lu, H.Y., Miao, X.D., Cha, P., Zhou, Y.L. 2008. Limited change in dune mobility in response to a large change in wind power in semi-arid northern China since the 1970s. *Geomorphology* 102: 351-363.
- Mason**, J.A., Miao, X.D., Hanson, P.R., Johnson, W.C., Jacobs, P.M., and Goble, R.J. 2008. Loess record of the Late Pleistocene to Holocene transition on the central and northern Great Plains. *Quaternary Science Reviews* 27: 1772-1783
- Zhou, Y. L., Lu H. Y., **Mason** J.A., Miao, X. D., Swinehart, J., Goble R. 2008. Optically stimulated luminescence dating of aeolian sand in the Otindag dune field and Holocene climate change. *Science in China Series D: Earth Sciences* 51: 837-847.
- Loope, D.B., Seiler, W.M., **Mason**, J.A., Chan, M.A. 2008. Wind scour of Navajo Sandstone at the Wave (Central Colorado Plateau, U.S.A). *Journal of Geology* 116: 173-183.
- Johnson, W.C., Willey, K.L., **Mason**, J.A., and May, D.E. 2007. Stratigraphy and environmental reconstruction at the Middle Wisconsinan Gilman Canyon Formation type locality, Buzzard's Roost, Southwestern Nebraska, U.S.A. *Quaternary Research* 67: 474-486
- Mason**, J.A., Joeckel, R.M., and Bettis, E.A., III. 2007. Middle to Late Pleistocene loess record in eastern Nebraska, U.S.A., and implications for the unique nature of Oxygen Isotope Stage 2. *Quaternary Science Reviews* 26: 773-792.
- Jacobs, P.M., and **Mason**, J.A. 2007. Late-Quaternary climate change, loess sedimentation, and soil profile development in the central Great Plains: A pedosedimentary model. *Geological Society of America Bulletin* 119: 462-475
- Miao, X.D., **Mason**, J.A., Johnson, W.C., and Wang, H. 2007. High-resolution proxy record of Holocene climate from a loess section in Southwestern Nebraska, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology* 245:368-381.
- Miao, X.D., **Mason**, J.A., Swinehart, J.B., Loope, D.B., Hanson, P.R., Goble, R.J., and Liu, X.D. 2007. A 10,000-yr record of dune activity, dust storms, and severe drought in the central Great Plains, U.S.A. *Geology* 35:119-122.

- Wang, H, **Mason**, J.A., and Balsam, W.L. 2006. The importance of both geological and pedological processes in control of grain size and sedimentation rates in Peoria Loess. *Geoderma* 136: 388-400
- Sridhar, V., Loope, D.B., Swinehart, J.B., **Mason**, J.A., Oglesby, R, J., and Rowe, C.M. 2006. Large wind shift on the Great Plains during the Medieval Warm Period, *Science* 313: 345 – 347, DOI: 10.1126/science.1128941
- Miao, X.D., Wang, X.L., and **Mason**, J.A. 2006. Isolation of the syndepositional magnetic susceptibility signals from loessic paleosols of China. *Journal of Asian Earth Sciences*, 27: 684-690
- Hanson, P. R., **Mason**, J. A., and Goble, R.J. 2006. Terrace formation along the non-glaciated Laramie Range, Wyoming. *Geomorphology* 26:12-25.
- Lu, H.Y., Miao, X.D., Zhou, Y.L., **Mason**, J.A., Swinehart, J., Zhang, J.F., Zhou, L.P., Yi, S.W. 2005. Late Quaternary aeolian activity in the Mu Us and Otindag dunefields (north China) and lagged response to insolation forcing. *Geophysical Research Letters* 32: L21716, doi:10.1029/2005GL024560.
- Miao, X. D., **Mason**, J. A., Goble, R. J., and Hanson, P. R. 2005. Loess record of dry climate and eolian activity in the early to mid-Holocene, central Great Plains, North America. *The Holocene* 15: 339-346.
- Balco, G., Stone, J.O.H., and **Mason**, J.A. 2005. Numerical ages for Plio-Pleistocene sediment sequences by $^{26}\text{Al}/^{10}\text{Be}$ dating of quartz in buried paleosols. *Earth and Planetary Science Letters* 232:179-191.
- Loope, D.B., **Mason**, J.A., Bao, H., Kettler, R.M., and Zanner, C.W. 2005. Inputs of tephra and sulfuric acid to an ancient Great Plains playa (Oligocene of Nebraska, USA). *Sedimentology* 52: 123-139.
- Jacobs, P. M., and **Mason**, J.A. 2005. Dust aggradation, carbon sequestration, and the origin of thick A horizons in Mollisols of the Great Plains. *Geoderma* 125: 95-106.
- Feggestad, A.J., Jacobs, P.M., Miao, X.-D., and **Mason**, J.A. 2004. Stable carbon isotope record of Holocene environmental change in the Central Great Plains. *Physical Geography* 25: 170-190.
- Hanson, P. R., **Mason**, J. A., and Goble, R.J. 2004. Episodic late Quaternary slope wash deposition as recorded in colluvial aprons, southeastern Wyoming. *Quaternary Science Reviews* 23: 1835-1846
- Miao, X.-D., Sun, Y.-B., Lu, H.-Y., and **Mason**, J.A. 2004. Spatial pattern of grain size in the Late Tertiary 'Red Clay' deposits (North China) indicates transport by low-level northerly winds. *Palaeogeography, Palaeoclimatology, Palaeoecology* 206: 149-155.

- Goble, R. J., **Mason**, J.A., Loope, D.B. and Swinehart, J.B. 2004. Optical and radiocarbon ages of stacked paleosols and dune sands in the Nebraska Sand Hills, USA. *Quaternary Science Reviews* 23: 1173-1182
- Jacobs, P. M., and **Mason**, J. A. 2004. Paleopedology of soils in thick Holocene loess, Nebraska, USA. *Revista Mexicana de Ciencias Geologicas* (Mexican Journal of Geological Sciences), 21: 54-70.
- Mason**, J. A., Swinehart, J.B., Goble, R.J., and Loope, D.B. 2004. Late Holocene dune activity linked to hydrological drought, Nebraska Sand Hills, USA. *The Holocene* 14: 209-217.
- Mason**, J. A., Jacobs, P.M., Hanson, P.R., Miao, X.-M., and Goble, R.J. 2003. Sources and paleoclimatic significance of Holocene Bignell Loess, central Great Plains, USA. *Quaternary Research* 60: 330-339.
- Mason**, J. A., Jacobs, P.M., Greene, R.S.B., and Nettleton, W.D. 2003. Sedimentary aggregates in the Peoria Loess of Nebraska, U. S. A. *Catena* 53: 377-397
- Mays, M. D., Nettleton, W.D., Greene, R.S.B., and **Mason**, J.A. 2003. Dispersibility of glacial loess in particle size analysis. *Australian Journal of Soil Science* 41: 229-244.
- Fang, X.-M., Lu, L.-Q, **Mason**, J.A., Yang, S., An, Z.-S., and Li, J.-J. 2003. Pedogenic response to millennial summer monsoon enhancements on the Tibetan Plateau. *Quaternary International* 106-107: 79-88.
- Konen, M. E., Jacobs, P.M., Burras, C.L., Talaga, B.J., and **Mason**, J.A. 2002. Equations for predicting soil organic carbon using loss-on-ignition for selected soils of the north central United States. *Soil Science Society of America Journal* 66:1878-1881
- Mason**, J. A. 2001. Transport direction of Peoria Loess in Nebraska and implications for loess sources on the central Great Plains. *Quaternary Research* 56: 79-86.
- Lu, L.-Q., Fang, X.-M., **Mason**, J.A., Li, J.-J., and An, Z.-S. 2001. The evolution of coupling of Asian winter monsoon and high latitude climate of the Northern Hemisphere--Grain evidence from 8.1 Ma loess-red clay sequence on the Chinese central Loess Plateau. *Science in China (D)*, 44 (Supplement): 185-191.
- Mason**, J. A., and Kuzila, M.S. 2000. Episodic Holocene loess deposition in central Nebraska. *Quaternary International* 67:119-131.
- Baker, R. G., **Mason**, J.A., and Maher, L.J. 1999. Petaloid organs preserved in an Arctic plant macrofossil assemblage from full glacial sediments in southeastern Minnesota. *Quaternary Research* 52: 388-392

- Loope, D. B., **Mason, J.A.**, and Dingus, L. 1999. Lethal sandslides from eolian dunes. *Journal of Geology* 107: 707-713.
- Mason, J. A.**, and Jacobs, P.M. 1999. High-resolution particle size analysis as a tool for interpreting incipient soils in loess. *Chinese Science Bulletin* 44: 70-74.
- Mason, J. A.**, Nater, E.A., Zanner, C.W., and Bell, J.C. 1999. A new model of topographic control on loess distribution. *Geomorphology* 28: 223-236.
- Mason, J. A.** 1998. Relative rates of loess accumulation and pedogenic processes: implications for paleoclimatic inference. *Quaternary International* 51/52: 169-174.
- Mason, J. A.**, and Jacobs, P.M. 1998. Chemical and particle size evidence for addition of fine dust to soils of the midwestern United States. *Geology* 26: 1135-1138.
- Mason, J. A.**, and Knox, J.C. 1997. Age of colluvium indicates accelerated late Wisconsinan hillslope erosion in the Upper Mississippi Valley. *Geology* 25:267-270.
- Jacobs, P. M., Knox, J.C., and **Mason, J.A.** 1997. Preservation and recognition of Middle and Early Pleistocene loess in the Driftless Area, Wisconsin. *Quaternary Research* 47:147-154.
- Mason, J. A.**, Nater, E.A., and Hobbs, H.C. 1994. Transport direction of Wisconsinan loess in southeastern Minnesota. *Quaternary Research* 41:44-51.
- Mason, J. A.**, and Nater, E.A. 1994. Soil morphology--Peoria Loess grain size relationships, southeastern Minnesota. *Soil Science Society of America Journal* 58:432-439.
- Mason, J. A.**, Milfred, C.J., and Nater, E.A. 1994. Distinguishing parent material and soil age effects on an Ultisol of north-central Wisconsin, U.S.A. *Geoderma* 61:165-189.

2. Encyclopedia Chapters (each reviewed by 1-2 referees)

- Mason, J.A.** and Jacobs, P.M. 2006. Nature of Quaternary paleosols. In *Encyclopedia of Quaternary Science* (S. Elias, ed.). Elsevier.
- Mason, J. A.**, and Zanner, C.W. 2004. Grassland Soils. In D. Hillel and M. Singer (eds.) *Encyclopedia of Environmental Soil Science*. Elsevier.

3. Field Trip Guidebook Section

- Bettis, E.A., III, J.A. **Mason, J.B.** Swinehart, X.-D. Miao, P.R. Hanson, R.J. Goble, D.B. Loope, P.M. Jacobs, H.M. Roberts. 2003. Cenozoic eolian sedimentary systems of the USA mid-continent. In D. Easterbrook (ed.), *Quaternary Geology of the United States*. Geological Society of America, Boulder, Colorado, pp. 195-218.

4. Open-File Reports (internal state geological survey review only)

Mason, J. A., and R. M. Joeckel. 2002. Surficial geology of the Platte River Valley, Fremont to Ashland (Fremont East, Arlington, Valley, Wann, and Ashland East 7.5-Minute Quadrangles). Conservation and Survey Division Open-File Report 68, University of Nebraska, Lincoln [CDROM].

Mason, J. A., R. F. Diffendal, Jr., and R. M. Joeckel (Eds.). 2001. Program and Abstracts, 7th International Conference on Fluvial Sedimentology. Conservation and Survey Division Open-File Report 60, University of Nebraska, Lincoln [CDROM].

Mason, J. A. 2001. Surficial geology of the Fort Calhoun and Kennard Quadrangles, Nebraska. Conservation and Survey Division Open-File Report 56, University of Nebraska, Lincoln [CDROM].

5. Digital Geologic Maps (internal state geological survey review only)

Mason, J. A. 1999. Surficial Geology of the Fort Calhoun 7.5' Quadrangle.

Mason, J. A. 1999. Stack Map of the Fort Calhoun 7.5' Quadrangle.

Mason, J. A. 1999. Surficial Geology of the Kennard 7.5' Quadrangle.

Mason, J. A. 1999. Stack Map of the Kennard 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Surficial Geology of the Arlington 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Stack Map of the Arlington 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Surficial Geology of the Valley 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Stack Map of the Valley 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Surficial Geology of the Wann 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2000. Stack Map of the Wann 7.5' Quadrangle.

Mason, J. A., and R. M. Joeckel. 2001. Surficial Geology of the Ashland East Quadrangle.

Mason, J. A., and R. M. Joeckel. 2001. Stack Map of the Ashland East Quadrangle.

R. M. Joeckel and J. A. Mason. 2001. Surficial Geology of the Fremont East Quadrangle.

R. M. Joeckel and J. A. Mason. 2001. Stack Map of the Fremont East Quadrangle.

Mason, J. A., and R. M. Joeckel. 2003. Stack Map of the Ashland West Quadrangle.

6. Abstracts/Meeting presentations (last five years)

Mason, J.A., Swinehart, J.B., Lu, H.Y., Miao, X.D., Zhou, Y.L., and Goble, R. J. 2006. Comparison of Holocene eolian systems in North China and the Great Plains, USA: Implications for paleoclimatic interpretation. Rapid Change in Asia's Drylands (RACHAD) Workshop, Lanzhou University.

Mason, J.A., Joeckel, R.M., Miao, X.D., Hanson, P.R., and Jacobs, P.M. 2005. Loess stratigraphy of Nebraska in a global context. Geological Society of America North Central Section, Annual Meeting, Minneapolis.

Mason, J.A. 2005. Relief produced by loess deposition in the central Great Plains: A "natural experiment in geomorphology. Geological Society of America Annual

Meeting, Salt Lake City.

Miao, X.D., **Mason**, J., Swinehart, J., Loope, D., Goble, R., Hanson, P., and Liu, X.D. 2005. A 10,000-year record of dune activity, dust storms, and drought in the Central Great Plains. Geological Society of America Annual Meeting, Salt Lake City.

Jacobs, P.M., and **Mason**, J.A. 2005. Aggradational pedogenesis: The upland landscape response to climate change. Geological Society of America North Central Section, Annual Meeting, Minneapolis.

Joeckel, R.M., and **Mason**, J.A. 2005. Ridgetop loess pedostratigraphy: A key to understanding landscape evolution in eastern Nebraska. Geological Society of America North Central Section, Annual Meeting, Minneapolis.

Zhou, Y.L., Lu, H.Y., Zhang, J.F., Zhou, L.P., Miao, X.D., and **Mason**, J.A. 2005. Optically stimulated luminescence dating sand-loess system in Mu Us and Otindag deserts in North China. PAGES 2nd Open Science Meeting, Beijing.

Mason, J. A., 2004. Tableland evolution in the central Great Plains. Geological Society of America Annual Meeting, Denver.

Mason, J. A., 2004. Abrupt boundaries in eolian systems of the central U.S.: Influence of climate, vegetation, topography, and groundwater. American Quaternary Association Biennial Meeting, Lawrence, Kansas.

Mason, J. A., 2004. Loess distribution controlled by topographic and hydrologic barriers to eolian sand transport. Association of American Geographers Annual Meeting, Philadelphia.

Loope, H., and **Mason**, J.A., 2003, History of loess tableland formation and implications for local paleoclimatic conditions, southwestern Nebraska. North-Central Division, Geological Society of America, Kansas City.

Bettis, E.A., III, J.A. **Mason**, H.M. Roberts, G.A.T. Duller, D.R. Muhs. 2003. Mass Accumulation Rates and Competing Loess Sources During the Last Glacial Period in the Missouri River Basin, North American Midcontinent. XVI Congress, International Quaternary Association, Reno, Nevada.

Mason, J. A., P. M. Jacobs, P. R. Hanson, X.-D. Miao, and R. J. Goble 2002. Bignell Loess sections provide continuous record of Holocene dune activity and climate change. American Quaternary Association, Anchorage, Alaska.

Mason, J. A., and P. M. Jacobs. 2002. Relief production by loess deposition, central Great Plains. Association of American Geographers Annual Meeting, Los Angeles, California.

Mason, J. A., and R. M. Joeckel. 2001. Late Quaternary geomorphology and sedimentology of the Platte River floodplain, eastern Nebraska, USA. Program and Abstracts, Seventh

International Conference on Fluvial Sedimentology, Conservation and Survey Division Open-File Report 60, Lincoln, Nebraska, p. 195.

Jacobs, P. M., and J. A. **Mason**. 2001. Holocene soil stratigraphy of central Nebraska: Aggradation of the loess tablelands. Sixth International Symposium and Field Workshop on Paleopedology. Mexico City.

Goble, R. J., J. A. **Mason**, D. B. Loope, and J. B. Swinehart. 2001. Optically stimulated luminescence dating of stacked paleosols, Nebraska Sand Hills. Geological Association of Canada/Mineralogical Association of Canada Joint Annual Meeting Abstracts 26:51.

Mason, J. A., and R. M. Joeckel. 2000. Loess stratigraphy and paleopedology near Omaha, Nebraska. American Quaternary Association, 16th Biennial Meeting, Program and Abstracts p. 82.

Mason, J. A. 2000. Colluvial record of long-term hillslope evolution, southeastern Minnesota. Geological Society of America Abstracts with Program, vol. 32, no. 7, p. 182.

Konen, M. E., B.J. Talaga, C.L. Burras, P.M. Jacobs, and J.A. **Mason**. 2000. Organic Matter and Organic Carbon Content Relationships for Selected Soils in the Northcentral U.S.: LOI vs. Leco. Agronomy Abstracts.