

# Neil A. Wells

20 Nov 2019

1277 Meadowbrook Court  
Stow, Ohio 44224  
phone: 330-688-2830

Department of Geology  
Kent State University  
Kent, Ohio 44242-0001

NWells@geology.kent.edu

Phone: 330-672-2951 or 2680, fax-7949

## Academic Career

Kent State University since 1984: (=>'89 Assist. Prof., =>'98 Assoc. Prof.; now Professor)  
-----

University of Michigan, Ph.D. 1978-1984 (under P.D. Gingerich & J.L. Wilson)

Ohio State University

Institute of Polar Studies, non-degree research 1977-1978 (D.H. Elliot)

Department of Geology & Mineralogy, M.S. 1975-1977 (K.O. Stanley)

Albion College, Albion, Michigan, B.A. (s.c.l.) 1972-1975

### TEACHING:

Sedimentology	Geomorphology	Advanced Sedimentology
Historical Geology	Sedimentary Petrology	All About Dinosaurs
Scientific Methods in Geology	Carbonates	Invertebrate Paleontology
Sedimentation & Tectonics	Geology For Archaeologists	Vertebrate Paleontology Seminar

### STUDENTS:

Ph.D.: Abdul Waheed	1992	Pakistan Oil & Gas Co.
M.S.: Karen Taylor	1986	pursued Ph.D., now environmental geosciences
Stanley Radon	1987	environmental geoscience consultant, Buffalo, NY
Charles Ferber	1987	environmental geoscience, Florida, + law degree in 1999
Frederick Wise	1995	NJ EPA
Vassilia Angelaki	1997	NY-based international environmental geoscience company
Marylynn Konowal	1999	Cleveland school system
Mark Jones	2000	environmental geoscience, Columbus, Ohio
Scott Sundback	2000	
Peter Posedly	current	
Courtney Smith	current	

## Publications

### Articles & Notes

(\* = refereed articles, \*\* = 10 most significant)

69. 2019. Are three to ten tests enough to characterize a rock property? *Environmental and Engineering Geoscience*, 25(3): 223-244. (N.A. Wells & A. Shakoor.)
68. 2017. Morphology, systematics, and paleoecology of *Tridactylastacus* (Crustacea, Decapoda, Glypheidea, Litogastridae). *Journal of Paleontology*. 90:1112–1117. doi: 10.1017/jpa.2016.116. Schweitzer, C.E., Feldmann, R.M., Karasawa, H., Wells, N.A., Hu, S., Zhang, Q., Huang, J., Wen, W., Zhou, C., Xie, T.
68. 2013. Mid–Late Holocene coastal environmental changes in southeastern Sri Lanka: New evidence for sea level variations in southern Bay of Bengal. *Quaternary International*, 298: 20-36. (N. Ranasinghe, J.D. Ortiz, A.L. Moore, B. McAdoo, N. Wells, C.H.E.R. Siriwardana, and D.T.D.S. Wijesundara.)
67. 2013. Investigating statistical relationships among clay mineralogy, index engineering properties, and shear strength parameters of mudrocks. *Engineering Geology*, 159: 45-58. (A. Hajdarwish, A. Shakoor, N.A. Wells)

66. 2013. How to explain a decapod crustacean diversity hotspot in a mid-Cretaceous coral reef. *Paleogeography, Paleoecology, Paleoclimatology*, <https://dx.doi.org/10.1016/j.paleo.2013.01.024>. (A. A. Klompmaker, J.D. Ortiz, N.A. Wells)
65. 2011. Admassu, Y., Shakoor, A., and Wells, N.A., in press. Evaluating selected factors affecting the depth of undercutting in rocks subject to differential weathering. *Environmental and Engineering Geoscience. Engineering Geology (September 2011)*, v. 124, pp. 1-11, doi:10.1016/j.enggeo.2011.09.007
64. 2011. Saha, K., Wells, N.A., and Munro-Stasiuk, M., 2011, An object-oriented approach to automated landform mapping,: a case study of drumlins. *Computers and Geosciences*, 37:1324-1336.
63. 2004. Gullies. Pages 503-506, in, A.S. Goudie, ed. *Encyclopedia of Geomorphology*, vol. 2; Routledge, London, 1156 p., in 2 vols.). (N.A. Wells.)
62. \*2003. Some hypotheses on the Mesozoic and Cenozoic paleoenvironmental history of Madagascar. Pages 16-34, in, S.M. Goodman and J.P. Benstead, eds., *The Natural History of Madagascar*, University of Chicago Press, Chicago. (N.A. Wells.)
61. 2003. Plotting equation for Gaussian percentiles and a spreadsheet program for generating probability plots -- Discussion. *Journal of Sedimentary Research*, 73(6):1082-1083. (N.A. Wells.)
60. 2003. Chapter 3, Review and regional context of Late Devonian to Early Pennsylvanian stratigraphy in north-central Ohio. In A.M. Foos, ed., *Pennsylvanian Sharon Formation, Past and Present: sedimentology, hydrogeology, and historical and environmental significance (SEPM Great Lakes Section Fall Field Trip Guide)*, Ohio Division of Geological Survey Field Guidebook no. 18, p. 13-18. (N.A. Wells.)
59. 2003. Chapter 6, Some notes and hypotheses concerning iron and iron-remobilization in the Sharon Formation (Summit County, Ohio). In A.M. Foos, ed., *Pennsylvanian Sharon Formation, Past and Present: sedimentology, hydrogeology, and historical and environmental significance (SEPM Great Lakes Section Fall Field Trip Guide)*, Ohio Division of Geological Geological Survey Field Guidebook no. 18, p. 33-37, & plates p. 68-93. (N.A. Wells, D.A. Waugh, and A.M. Foos.)
58. 2003. Chapter 8, Description of field trips, Day 1. In A.M. Foos, ed., *Pennsylvanian Sharon Formation, Past and Present: sedimentology, hydrogeology, and historical and environmental significance (SEPM Great Lakes Section Fall Field Trip Guide)*, Ohio Division of Geological Geological Survey Field Guidebook no. 18, p. 54-65. (N.A. Wells, A.M. Foos, and D.A. Waugh.)
57. \*\*2002. Quantitative evaluation of color measurements. I. Triaxial stereoscopic scatterplot graphs. *Sedimentary Geology*, 151(1-2):1-15. (N.A. Wells.)
56. \*2002. Quantitative evaluation of color measurements. II. Analysis of Munsell color values from the Colton & Green River Formations, Eocene, central Utah. *Sedimentary Geology*, 151(1-2):17-44. (N.A. Wells, M. Konowal, & S.A. Sundback.)
55. \*2002. Studying earthquakes, while learning about data and visualization. *Journal of Geoscience Education*, 50(5):271-286. (N.A. Wells.)
54. \*2002. Display of Munsell color values, earthquakes, and other three- and four-parameter data sets in stereo 3D. *Computers and Geosciences*, 28(5):701-709. (N.A. Wells.)
53. 2001. Clastic Sediments (short annual review). *Geotimes*, 44(7, July): (N.A. Wells.)
52. \*2001. 3D.Bas, a Quickbasic program for three-dimensional stereo-scatterplots of XYZ data, *Computers & Geosciences*, 27:289-297. (N.A. Wells.)
51. 2000. Clastic Sedimentology (short annual review). *Geotimes*, 43(7, July):20-21. (N.A. Wells.)
50. \*2000. Random orientation of wood on two tiny alluvial fans (Tavaputs plateau, NE Utah). *Journal of Sedimentary Research*, 70(3):461-469. (Neil A. Wells & Shawn R. Rapp.)
49. \*\*2000. Are there better alternatives to standard rose diagrams? *Journal of Sedimentary Research*, 70(1):37-46. (Neil A. Wells.)

48. \*1999. Astra.bas, a program in Quickbasic 4.5 for exploring rose diagrams, circular histograms, and some alternatives. Computers and Geosciences, 25(6):641-654. (Neil A. Wells.)
47. 1999. Clastic Sedimentology (short annual review). Geotimes, 42(7, July):32. (N.A. Wells.)
46. 1998. A simple exercise about awareness and analysis of error. Journal of Geoscience Education, 46:476-478. (N.A. Wells.)
45. 1998. Clastic Sedimentology (short annual review). Geotimes, 42(2, February):31-32. (N.A. Wells.)
44. 1997. Class journals, grading writing, and teaching writing style. Journal of Geoscience Education, 45:314-316. (N. A. Wells.)
43. \*\*1997. Late Cretaceous vertebrates from Madagascar: implications for biotic change in deep time. Pages 3-43, in, S.M. Goodman and B.D. Patterson, eds., Natural Change and Human Impact in Madagascar (Proceedings of the Madagascar Symposium, Field Museum of Natural History, 2-4 June 1995). Smithsonian Institution, D.C., 432 p. (D.W. Krause, J.H. Hartman, & N.A. Wells.)
42. \*1997. Extreme gullying in Madagascar and its cultural and natural causes. Pages 44-74, in, S.M. Goodman and B.D. Patterson, eds., Natural Change and Human Impact in Madagascar (Proceedings of the Madagascar Symposium, Field Museum of Natural History, 2-4 June 1995). Smithsonian Institution, D.C., 432 p. (N.A. Wells & B. Andriamihaja.)
41. \*1996. The transition from Tethys to the Himalaya as recorded in NW Pakistan. Geological Society of America Bulletin, 108(10):1295-1313. (D.A. Pivnik & N.A. Wells.)
40. \*1995. Paleolimnology and taphonomy of some fish deposits in "Fossil" and "Uinta" Lakes of the Eocene Green River Formation, Utah and Wyoming. Palaeogeography, Palaeoclimatology, Palaeoecology, 117:185-210. (C.T. Ferber & N.A. Wells.)
39. \*1994. A geological approach toward developing a mudrock-durability classification system. Canadian Geotechnical Journal, 31:17-26. (J.C. Dick, A. Shakoor, & N.A. Wells.)
38. \*1994. Late Cretaceous mammal [from Madagascar]. Nature, 368 (24 March): 298. (D.W. Krause, J.H. Hartman, N.A. Wells, G.A. Buckley, C.A. Lockwood, C.E. Wall, R.E. Wunderlich, J.A. Rabarison, & L.L. Randriamirama.)
37. \*1993. Fluvial history of late Cenozoic molasse, Sulaiman Range, Pakistan. Geological Bulletin of the University of Peshawar (Pakistan), 25 (1992):1-15. (A. Waheed & N.A. Wells.)
36. \*\*1993. The initiation and growth of gullies in Madagascar: are humans to blame? Geomorphology. 8:1-46. (N.A. Wells & B. Andriamihaja.)
35. \*1993. Fluvial processes and recumbently folded crossbeds in the Pennsylvanian Sharon Conglomerate in Summit County, Ohio, U.S.A. Sedimentary Geology (Special Volume, Current Research in Fluvial Sedimentology, edited by C.R. Fielding), 85:63-83. (N.A. Wells, S.S. Richards, S. Peng, S.E. Keatch, J.A. Hudson, & C.J. Copsy.)
34. \*1993. Discriminant function analysis of fish-bearing deposits in the Eocene Green River Formation of Utah and Wyoming. Palaios, 8(1):81-100. (N.A. Wells, C.T. Ferber, & J.C. Ohman.)
33. \*1992. Evidence for cryptic colluvial addition and removal at the tops of laterite profiles in Madagascar. Bulletin, Sciences Géologiques, 43(2-4):237-251 (dated 1990; published 1992). (N.A. Wells & B. Andriamahaja.)
32. \*1992. The Mississippian Berea Sandstone at Bedford in northern Ohio: tidal cyclicity, syndepositional deformation, and major bounding surfaces. Northeastern Geology, 14(1):15-28. (P.W. Duncan & N.A. Wells.)

31. \*1991. Paleocurrent analysis of the Sharon Conglomerate and sandstone lithosomes in the vicinity of Ice Box Cave at Kendall Ledges Park, Summit County, Ohio. The Compass, 68(1):21-32 (dated Fall 1990, publ. 1991). (D.J. Mullett, R.A. Kurlich, K.R. Frech, & N.A. Wells.)
30. \*1991. Patterns of development of lavaka, Madagascar's unusual gullies. Earth Surface Processes & Landforms, 16(3):189-206. (N.A. Wells, B. Andriamihaja, H.F.S. Rakotovololona).
- 29.\*\*1991. Field guide to Berea Sandstone outcrops along the Black River in Elyria, Ohio: slumps, slides, mud diapirs, and associated fracturing in Mississippian delta deposits. Field trip for Geological Society of America meeting in Toledo, April, 1991, Ohio Journal of Science, 91(1):35-48. (N.A. Wells, A.H. Coogan, J.J. Majoras.)
28. \*1991. Growth of gullies on laterite in Madagascar: non-intuitive implications for control. In: International Erosion Control Association, Erosion control - a global perspective: Proceedings of Conference 22 (20-22 Feb. 1991; Orlando, Florida), p.381-401. (N.A. Wells & B. Andriamihaja.)
27. \*1990. Astragalus of Anthracobune (Mammalia, Proboscidea) from the Middle Eocene of Azad Kashmir, Pakistan. Contributions Museum of Paleontology, University of Michigan, 28(3):71-77. (P.D. Gingerich, D.E. Russell, & N.A. Wells.)
26. \*1990. Comparing sets of circular orientations by modified chi-squared testing. Computers and Geosciences, 16(8):1115-1170. (N.A. Wells.)
25. \*1990. Changes in paleocurrents during the development of an obliquely convergent plate boundary (Sulaiman fold-belt, SW Himalayas, west-central Pakistan). Sedimentary Geology, 67(3-4):237-261. (A. Waheed & N.A. Wells.)
24. \*\*1990. Stonelines and landscape development on Madagascar's laterized craton. Geological Society of America Bulletin, 102(5):615-627. (N.A. Wells, B. Andriamihaja, & H.F.S. Rakotovololona.)
23. \*1989. Using the illogic of creationism to teach about the logic of science. Journal of Geological Education, 37:317-320. (N.A. Wells.)
22. \*1989. Making thin sections. In R.M. Feldmann, R.E. Chapman, & J.T. Hannibal, eds., Paleotechniques, Paleontological Society Special Publication, 4:120-131. (N.A. Wells.)
21. \*1989. Techniques for impregnation of friable specimens. In R.M. Feldmann, R.E. Chapman, & J.T. Hannibal, eds., Paleotechniques, Paleontological Society Special Publication, 4:132-139. (N.A. Wells.)
20. \*1989. A program in BASIC for facies-by-facies Markov chain analysis. Computers & Geosciences, 15(1):143-155. (N.A. Wells.)
19. \*1988. Paleoenvironmental interpretation of Paleogene strata near Kotli, Azad Kashmir, northeastern Pakistan. Kashmir Journal of Geology, v.5 (dated 1987), p.23-41. (N.A. Wells & P.D. Gingerich.)
18. \*1988. Working with paleocurrents. Journal of Geological Education, 36(1):39-43. (N.A. Wells.)
17. \*1987. L'environnement au cours de l'Holocène et la disparition de la megafaune à Madagascar: Quel rapport avec la conservation de la nature? In R.A. Mittermeier, L.H. Rakotovo, V. Randrianasolo, E.J. Sterling, & D. Devitre (eds.), Priorités en matière de conservation des espèces à Madagascar; Species Survival Commission, Union Internationale pour la Conservation de la Nature, Occasional Papers, 2:137-143. (Proceedings 1985 UICN/SSC World Wildlife Fund symposium, Antananarivo, Madagascar.) (D.A. Burney, R.D.E. MacPhee, R.E. Dewar, N.A. Wells, E.H. Andriamanantena, & M. Vuillaume-Randriamanantena.)
16. \*1987. A reconnaissance of sedimentation on the Kosi alluvial fan of India. In F.G. Ethridge and R.M. Flores, eds., Recent Developments in Fluvial Sedimentology. SEPM Special Publication, 39:51-61. (N.A. Wells & J.A. Dorr, Jr.)
- 15.\*\*1987. Shifting of the Kosi River, northern India. Geology, 15:204-207. (N.A. Wells & J.A. Dorr, Jr.)
14. \*1986. Biofabrics as dynamic indicators in Nummulite accumulations - Discussion. Journal of Sedimentary Petrology, 56(2):318-320. (N.A. Wells.)

13. \*1986. Early Holocene chronology and environment of Ampasambazimba, a Malagasy subfossil lemur site. International Journal of Primatology, 6(5) (1985): 461-487. (R.D.E. MacPhee, D.A. Burney, & N.A. Wells.)
12. \*1985. Form and function of the fish Bothriolepis (Devonian; Placodermi, Antiarchi): the first terrestrial vertebrate? Michigan Academician, 17(2):157-173. (N.A. Wells & J.A. Dorr, Jr.)
11. \*1984. Sheet debris flow and sheetflood conglomerates in Cretaceous cool-maritime alluvial fans, South Orkney Islands, Antarctica. In E.H. Koster & R.J. Steele, eds., Sedimentology Of Gravels and Conglomerates. Canadian Society of Petroleum Geologists Memoir, 10:137-145. (N.A. Wells.)
10. \*1984. Asymmetrical migrating beach cusps on the Ganges River, India. Journal of Geology, 92:229-232. (N.A. Wells, J.A. Dorr, & A. Sengupta.)
9. \*1984. Team finds giant lemur skeleton in Madagascar. Geotimes, 29(1):10-11. (R.D.E. MacPhee, E.L. Simons, N.A. Wells, & M. Vuillaume-Randriamanantena)
8. \*\*1983. Review of Eocene Anthracobunidae (Mammalia, Proboscidea) with a new genus and species, Jozaria palustris, from the Kuldana Formation of Kohat (Pakistan). Contributions of the Museum of Paleontology, University of Michigan, 26(7):117-139. (N.A. Wells & P.D. Gingerich.)
7. \*\*1983. Carbonate deposition, physical limnology, and environmentally controlled chert formation in Paleocene-Eocene Lake Flagstaff, central Utah. Sedimentary Geology, 35:263-296. (N.A. Wells.)
6. \*\*1983. Origin of whales in epicontinental remnant seas: new evidence from the early Eocene of Pakistan. Science, 220:403-406. (P.D. Gingerich, N.A. Wells, D.E. Russell, & S.M.I. Shah.)
5. \*1983. Transient streams in sand-poor redbeds: early-middle Eocene Kuldana Formation of northern Pakistan. In J.D. Collinson and J. Lewin, eds., Modern And Ancient Fluvial Systems. Special Publication, International Association of Sedimentologists, 6:393-403. (Presented at 2nd International Fluvial Conference, Keele, England, 1981.) (N.A. Wells.)
4. \*1982. An example of extrusion of fluid mud through mudcracks and an origin of sedimentary dikes. Geologie en Mijnbouw, 61:401-402. (N.A. Wells & M.A. Jah.)
3. \*1982. Mesozoic alluvial fans of the South Orkney Islands. In C. Craddock, (ed.), Antarctic Geoscience, University of Wisconsin Press, Madison, p.235-244. (Presented by NAW at the 3rd International Symposium on Antarctic Geology & Geophysics, Madison, Wisconsin, 1977.) (D.H. Elliot & N.A. Wells.)
2. 1981. The geological significance of some Triassic microfossils from the South Orkney Islands, Scotia Ridge. Geological Magazine, 118(1):15-25. (I.W.D. Dalziel, D.H. Elliot, D.L. Jones, J.W. Thomson, M.R.A. Thomson, N.A. Wells, & W.D. Zinsmeister.)
1. 1977. Geologic studies in the South Orkney Islands: R/V Hero Cruise 77-1, January 1977. Antarctic Journal of the United States, 12(4):98-101. (I.W.D. Dalziel, D.H. Elliot, J.W. Thomson, M.R.A. Thomson, N.A. Wells, & W.J. Zinsmeister.)

#### Theses

3. 1984. Marine and continental sedimentation in the early Cenozoic Kohat Basin and adjacent northwestern Indo-Pakistan. Unpublished Ph.D. dissertation, University of Michigan. Chairmen, P.D. Gingerich & J.L. Wilson. 345 p. Abstract in Dissertation Abstracts, 45(02):B495. (N.A. Wells.)
2. 1977. Paleocene-Eocene Lake Flagstaff of central Utah. Unpublished M.S. thesis, Ohio State University. K.O. Stanley, Chairman. 174 p.
1. 1975. Unpublished B.A. Honors thesis on scree-slope geomorphology and botanical ecology, Cream Puff and Beaver Mountains, Jackson, Wyoming. Albion College, MI. 52 p.

Other (Reviews, Letters, Comments, Etc.)

15. 1998. Review of "Evolution: Society, Science, and the Universe", by Andrew C. Fabian, 1998. *Quarterly Review of Biology*, 73(3):337. (N.A. Wells.)
14. 1998. Review of "Signs Of Meaning In The Universe", by Jesper Hoffmeyer, 1996. *Quarterly Review of Biology*, 73(2):193-194. (N.A. Wells.)
13. 1997. Review of: Unifying Biology: The Evolutionary Synthesis and Evolutionary Biology. (V.B. Smocovitis, 1996) *Quarterly Review of Biology*, 72(4):451. (N.A. Wells.)
12. 1997. Commentary on Darwinism: Science or Philosophy. Creation/Evolution, no. 38 (Summer 1996), p.16-23. (N.A. Wells.)
11. 1995. Review of "Darwinism: Science or Philosophy?" Quarterly Review of Biology, 70(4):499-500. (N.A. Wells.)
10. 1994. Review of Statistical Analysis of Circular Data, by N.I. Fisher. *Earth-Science Reviews*, 36:243-244. (N.A. Wells.)
9. 1994. Review: Christianity and the Nature of Science: A philosophical investigation". (Book Review.) Creation/Evolution, 14 (1) (issue 34, Summer 1994): 43-46. (N.A. Wells.)
8. 1993. Energy and the 21st Century [Letter]. 1993. Geotimes, 38(6):4,35. (N.A. Wells.)
7. 1992. Northeastern Ohio's Berea Sandstone production. (Extended abstract). Abstracts, 23rd Annual Appalachian Geology Symposium. 4 pages. (A.H. Coogan and N.A. Wells.)
6. 1989. Review of "Techniques in Sedimentology," Journal of Sedimentary Petrology, 59(3):512-513. (N.A. Wells.)
5. 1987. Review of "An Introduction To Carbonate Sediments And Rocks". Journal of Sedimentary Petrology, 57:944-945.
4. 1987. Review of "Canadian Inland Seas". Sedimentology, 34:744-745. (N.A. Wells.)
3. 1987. Review of "Teaching Science in a Climate of Controversy". *Creation/Evolution Newsletter*, 7(2&3):4-5. (N.A. Wells.)
2. 1987. Lavaka explained [Letter and cover photo]. Geotimes, 32(4):3. (N.A. Wells, B. Andriamihaja, and Ramilisonina.)
1. 1984. Review of "Chemical Sediments and Geomorphology" by A.S. Goudie & K. Pye. Sedimentology, 31(6):902-904. (N.A. Wells.)

Abstracts

59. 2017. Large eastward waves, multiple lake levels, and a major regression during late-glacial Lake Whittlesey, northwestern Ohio, U.S.A. *GSA Abstracts with Programs Vol. 49, No. 2*. (Pittsburgh, PA). <https://gsa.confex.com/gsa/2017NE/webprogram/Paper291223.html> (N.A. Wells & P. Posedly.)
58. 2013. Influence of the number of samples tested on the variability of unconfined compressive strength of rocks. *Association of Engineering Geologists*. (A. Shakoor, N.A. Wells, & R.M. Ruffolo.)
57. 2012. How to explain a decapod crustacean diversity hotspot in a mid-cretaceous coral reef. *GSA Abstracts with Programs Vol. 44, No. 7*. (A. Klompfmaker, J. Ortiz, N.A. Wells.)
56. 2000. Stevensite in the Eocene Green River Formation of central Utah. *Geological Society of America Abstracts with Programs (National Meeting)*, 32(7):310. (S.A. Sundback & N.A. Wells.)
55. 1999. 100 small alluvial fans and cones in Indian Creek Canyon, NE Utah. *Geological Society of America Abstracts with Programs (North-Central Section)*, 31(5):66. (S.R. Rapp & N.A. Wells.)

54. 1999. Jointing and soft-sediment deformation in Ohio sandstones. *Geological Society of America Abstracts with Programs (North-Central Section)*, 31(5):25. (D.M. Jones & N.A. Wells.)
53. 1998. Why rose diagrams don't work, and what to do instead. *Geological Society of America Abstracts with Programs (National Meeting)*, 30(7):336. (N.A. Wells.)
52. 1998. Terrestrial and lacustrine fluctuations in the Colton Formation, Eocene, central Utah. *Society of America Abstracts with Programs (National Meeting)*, 30(7):335. (M. Konowal and N.A. Wells.)
51. 1998. Extension of the Eocene Green River lakes into central Utah. *Geological Society of America Abstracts with Programs (National Meeting)*, 30(7):334. (S.A. Sundback and N.A. Wells.)
50. 1998. Random orientation of wood on two small alluvial fans in NE Utah. *Geological Society of America Abstracts with Programs (North-Central Section)*, 30(2):77. (N.A. Wells and S.R. Rapp.)
49. 1998. Jointing in Pennsylvanian shales at East Steubenville, W. Virginia. *Geological Society of America Abstracts with Programs (North-Central Section)*, 30(2):25. (D.M. Jones and N.A. Wells.)
48. 1997. Pre-soak clay samples prior to Sedigraph size analysis. *Abstracts with Programs, Geological Society of America (National Meeting, Salt Lake City, Utah, October 1997)*, 29(6):A147. (V. Angelaki, N.A. Wells, and A.Shakoor.)
47. 1996. Speculations on when and how modern mammals got to Madagascar. *Geological Society of America, Abstracts with Programs*, 28(7):A295. (N.A. Wells.)
46. 1995. Evaluation of the hydrometer and Sedigraph methods for grain-size analysis of fine-grained materials. *Abstracts with Programs, Geological Society of America (National Meeting, New Orleans, LA, November 1995)*, 27(6):A91. (V. Angelaki, A.Shakoor, N.A. Wells, and J.M. Harbor.)
45. 1995. Comparison of hydrometer and Sedigraph methods for measuring the grain-size distribution of fine-grained material. *Association of Engineering Geologists (Annual Meeting), Abstract Volume*, 38:32. (V. Angelaki, A.Shakoor, N.A. Wells.)
44. 1995. Extreme gullying in Madagascar and its cultural and natural causes. In B.D. Patterson, S.M. Goodman, and J.L. Sedlock, *Environmental Change In Madagascar. (Madagascar Symposium, Field Museum of Natural History: 2-4 June 1995)*, p.47-48. (N.A. Wells.)
43. 1994. Stratigraphy and paleontology of late Cretaceous vertebrate and invertebrate discoveries in northwestern Madagascar. *Abstracts with Programs, Geological Society of America*, (National Meeting, Seattle, WA, October 1994), 24(7):A501. (J.H. Hartman, N.A. Wells, D.W. Krause, and G.A. Buckley.)
42. 1994. Eocene closure of Tethys as recorded in NW Pakistan. *Abstracts with Programs, Geological Society of America*, (National Meeting, Seattle, WA, October 1994), 26(7):A181. (D.A. Pivnik, and N.A. Wells.)
41. 1994.  $^{40}\text{Ar}/^{39}\text{Ar}$  dating of coarse detrital muscovites from latest Devonian to Middle Pennsylvanian sandstones of northern Ohio. *Abstracts with Programs, Geological Society of America*, (Northeastern Meeting, Binghamton NY, 28-30 March 1994), 26(3):57-58. (D.R. Lux and N.A. Wells.)
40. 1993. Implications of long-term soil weathering and geomorphology for Madagascar's Cenozoic climate and rainforest cover. *Abstracts with Programs, Geological Society of America*, (National Meeting, Boston, 24-28 October 1993), 25(6):196. (N.A. Wells.)
39. 1992. Changes in provenance of sandstones from Cretaceous to Late Cenozoic times in the Sulaiman Range, west-central Pakistan. *Geological Society of America, Abstracts with Programs*, (National Meeting, Cincinnati, Ohio, 1992), 24(7):59. (A. Waheed and N.A. Wells.)
38. 1992. The initiation and growth of Madagascar's exceptional gullies. *Abstracts, 88th Annual Meeting, Association of American Geographers*, p.251. (N.A. Wells & B. Andriamihaja.)
37. 1991. Rethinking the Berea: the channels are slumps, the base is not a disconformity, and paleoflow was not southward. *Society of America Abstracts with Programs (North-Central Section)*, 23(3):65. (N.A. Wells & A.H. Coogan.)

36. 1991. Synsedimentary fracturing in the Mississippian Berea Sandstone delta, at Elyria and Berea, Medina County, Northern Ohio. Society of America Abstracts with Programs (North-Central Section), 23(3):65. (N.A. Wells.)
35. 1990. Soil fabrics and horizontal cracking in the Paleogene Claron Formation of southern Utah. Abstracts with Programs, (National Meeting), Geological Society of America, 22(7):335. (D.J. Mullett & N.A. Wells.)
34. 1990. Bulk geochemistry of tropical weathering on the Malagasy craton. Abstracts with Programs, (National Meeting), Geological Society of America, 22(7):340. (N.A. Wells, B. Andriamihaja, & P.S. Dahl.)
33. 1990. Fracturing related to mud diapirs and to slumps and slides of sand, Berea Sandstone delta, Mississippian, Cleveland area, Ohio, U.S.A. Abstracts of Papers, 13th International Sedimentological Conference (Nottingham, England), p.596-597. (N.A. Wells & J.J. Majoras.)
32. 1990. The Mississippian Berea Sandstone of the South Amherst Quarries, Lorain County, Ohio: Deposition as valley-fills or oversized loadcasts? Geological Society of America Abstracts with Programs (North-Central Section): 22(5):40. (K.L. Nesbit & N.A. Wells.)
31. 1990. The Mississippian Berea Sandstone at Bedford Falls, Ohio - no clear tidal cyclicity in its most tidal-like facies. Geological Society of America Abstracts with Programs (North-Central Section): 22(5)8. (P.W. Duncan & N.A. Wells.)
30. 1989. Facies and fluvial history of Late Cenozoic molasse, Sulaiman Range, southwest Himalayas, Pakistan. Programme and Abstracts, 4th International conference on Fluvial Sedimentology (Sitges, Spain, 2-4 October 1989), p. 240. (A. Waheed & N.A. Wells.)
29. 1989. Tropical weathering on the Malagasy craton: bulk geochemical analyses show cryptic colluvial addition and removal at tops of "laterite" profiles (Abstract). Abstracts, 9th International Clay Conference (Strasbourg, France, Sept. 1989), p.434. (N.A. Wells & B. Andriamihaja.)
28. 1989. Geochemical evidence concerning the origin of stonelines in Madagascar. Geological Society of America Abstracts with Programs, 21(4):52. (N.A. Wells & B. Andriamihaja.)
27. 1988. Formation of Mississippian Berea Sandstone "channels" by soft-sediment deformation, at Elyria, Lorain County, Ohio (Abstract). Geological Society of America Abstracts with Programs (North-Central Section), 20(4):382. (J.J. Majoras & N.A. Wells.)
26. 1988. Unusually intense pedogenic modification of the Paleocene-Eocene Claron Formation of southwestern Utah (Abstract). Geological Society of America Abstracts with Programs (North-Central Section), 20(4):379-380. (D.J. Mullett, N.A. Wells, & J.J. Anderson.)
25. 1988. Early Cenozoic deposition in the Cedar-Bryce depocenter: certainties, uncertainties, and comparisons with other Flagstaff-Green River basins. (Abstract.) Geological Society of America Abstracts With Programs (Cordilleran Section), 20(3):217. (D.J. Mullett, N.A. Wells, and J.J. Anderson.)
24. 1988. Paleocurrents beside an obliquely convergent plate boundary (Sulaiman fold-belt, SW Himalayas, west-central Pakistan (abstract). (AAPG National Convention), AAPG Bulletin, 72(2):255-256. (A. Waheed, N.A. Wells, N. Ahmad, & K.D. Tabbutt.)
23. 1987. Proximate causes and patterns of development of the extraordinary gullies on Madagascar's lateritized craton. Geological Society of America Abstracts with Programs (National Meeting), 19(7):886. (N.A. Wells, B. Andriamihaja, and H.F.S. Rakotovololona.)
22. 1987. Oligocene-Pliocene molasse sedimentation, northern Sulaiman Range (NW Himalayas), northern Pakistan. Geological Society of America Abstracts with Programs (North-central section, Minneapolis, MN), 19(4):250. (A. Waheed and N.A. Wells.)
21. 1986. A depositional model for the "White Facies" of the Grimsby Sandstone of western New York. Society of Economic Paleontologists & Mineralogists Annual Mid-Year Meeting, Abstracts, 3:92-93. (S. Radon & N.A. Wells.)



20. 1986. Fish taphonomy and environmental interpretation of parts of the Eocene Green River Formation, Utah. Society of Economic Paleontologists & Mineralogists Annual Mid-Year Meeting, Abstracts, 3:35-36. (C. Ferber & N.A. Wells.)
19. 1986. Temporal change in production and erosion of Madagascar's lateritic regolith. Abstracts, Twelfth International Sedimentological Congress (International Association of Sedimentologists, Canberra, Australia), p.327. (N.A. Wells, D.A. Burney, R.D.E. MacPhee, R.E. Dewar, & H.F.S. Rakotovololona.)
18. 1986. Stonelines demonstrate perpetually immature landscapes on lateritized metamorphic terrain in Madagascar. Geological Society of America Abstracts with Programs, (North-central Section, Kent, Ohio), 18(4):330. (N.A. Wells, R.E. Dewar, H.F.S. Rakotovololona, R.D.E. MacPhee, & D.A. Burney.)
17. 1986. Cause, effect, and megafaunal extinction in Holocene Madagascar: pollen and charcoal influx at Lake Kavitaha. (Abstract.) American Association of Physical Anthropologists, 88th Annual Meeting. American Journal of Physical Anthropologists, 69(2):182-183. (D.A. Burney, R.D.E. MacPhee, R.E. Dewar, & N.A. Wells.)
16. 1985. Randomness and disfavored transitions in Markov chains. Geological Society of America Abstracts with Programs, 17(7):747. (N.A. Wells & A. Waheed.)
15. 1985. Sedimentology of Ampasambazimba marsh, one of the best Holocene fossil deposits in Madagascar. 1985 SEPM Annual Mid-Year Meeting, Abstracts, v.2, p.94. (N.A. Wells, R.D.E. MacPhee, D. Burney, E.L. Simons, P.J. Chatrath, R.E. Dewar, & M. Vuillaume-Randriamanantena.)
14. 1985. Problems and promises in studying the Indo-Gangetic molasse, as illustrated by the Kosi alluvial fan, India. Abstracts Volume, 3rd International Fluvial Sedimentology Conference, p.38. (N.A. Wells & J.A. Dorr, Jr.)
13. 1985. Holocene environment and megafaunal adaptation in Madagascar. (Abstract.) American Journal of Physical Anthropology, 66(2):199-200. (R.D.E. MacPhee, D. Burney, N.A. Wells.)
12. 1985. Geology of several Holocene fossil sites in Madagascar. Northeastern Section, Geological Society of America, Abstracts with Programs, 17(1):69. (N.A. Wells, R.D.E. MacPhee, D.A. Burney, E.L. Simons, P.J. Chatrath, R.E. Dewar, & M. Vuillaume-Randriamanantena.)
11. 1984. Surficial geology of the Kosi alluvial fan, India. Geological Society of America Abstracts with Programs, 16(6):689-690. (N.A. Wells & J.A. Dorr, Jr.)
10. 1984. An associated skeleton of Palaeopropithecus from Zohin'i Anjohibe (Caves of Anjohibe), Madagascar. 1984 Abstracts Book, Canadian Association of Physical Anthropology Annual Meeting, p.40. (R.D.E. MacPhee, E.L. Simons, M. Vuillaume-Randriamanantena, & N.A. Wells.)
9. 1984. Form and function of the fish Bothriolepis (Devonian; Placodermi, Antiarchi) - The first terrestrial vertebrate? Natural Science Miscellaneous Publication G-101, Michigan Academy of Sciences, Arts, & Letters, p. 8, (abstract) Annual Meeting, Big Rapids, Michigan. (N.A. Wells & J.A. Dorr, Jr.)
8. 1982. Sheet debris flow and sheetflood conglomerates in Cretaceous alluvial fans, South Orkney Islands, Antarctica. Abstracts of 11th International Congress on Sedimentology, International Association of Sedimentologists, Hamilton, Ontario; p.50. (N.A. Wells.)
7. 1982. The last marine sediments in NW Indo-Pakistan and their tectonic significance. Abstracts of 11th International Congress on Sedimentology, International Association of Sedimentologists, Hamilton, Ontario; p.172. (N.A. Wells.)
6. 1981. Origin of whales (Mammalia, Cetacea) in epicontinental remnant seas: evidence from the Eocene of Pakistan. Geological Society of America Abstracts with Programs, 13:439. (P.D. Gingerich, D.E. Russell, & N.A. Wells.)
5. 1980. Nearshore marine and continental facies in the Eocene of north-central Pakistan. American Association of Petroleum Geologists Bulletin, 64:(5):802, (abstract), AAPG/SEPM National Meeting, Denver, Colorado. (N.A. Wells.)

4. 1979. Water chemistry during the development of Paleogene Lake Flagstaff of central Utah. Geological Society of America Abstracts with Programs, 11(7):537, Annual Meeting, San Diego, California. (N.A. Wells, P.D. Cloke, & R.S. Dawson.)
3. 1978. The evolution of the Antarctic Cordillera: Mesozoic alluvial fans and calc-alkaline volcanics. Geological Society of America Abstracts with Programs, 10(7):396. Annual Meeting, Toronto, Ontario. (D.H. Elliot, N.A. Wells, & T.M. Gracanic.)
2. 1977. Mesozoic alluvial fans of the South Orkney Islands. Volume of Abstracts, 3rd Symposium on Antarctic Geology & Geophysics (Madison, Wisconsin, August 1977), p. 50. (D.H. Elliot & N.A. Wells.)
1. 1977. Mesozoic conglomerates of the South Orkney Islands. Ohio Academy of Science Annual Meeting, (abstract), Columbus, Ohio. (N.A. Wells & D.H. Elliot.)