# **GEOLOGICAL SOCIETY OF AMERICA CITATION STYLE**

The Geological Society of America does not have a full citation style guide like those that MLA and APA provide. Instead, GSA provides general guidelines and examples, which are <u>available on their website</u> and reproduced below.

### **GSA REFERENCE GUIDELINES AND EXAMPLES**

- In the References Cited section, list all references mentioned in the text, figures, captions, tables, and appendices. List references mentioned in the Data Repository as well, unless the DR item has its own reference section.
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  references with two authors, list alphabetically by first author and then alphabetically by second
  author. For references with more than two authors, list alphabetically by first author and then
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- For references with more than 10 authors, shorten the author list to the first author's name plus "et al." If author list includes co-chief scientists, please include all of their names, with the rest of the author names shortened to "et al." See example in the "Book" section below.
- Spell out journal titles and book publishers. Include the city of publication for books.
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- For translated works, please see the Varnavskiy et al., 1995, example in the "Journal Article" section below.
- For references that do not match any of the examples given here, include all information that would help a reader locate the reference.

### **IN-TEXT CITATIONS**

Thoughts, concepts and information not our own or "common knowledge" are referenced with direct or parenthetical citations of author and year of publication. Direct quotations are followed by a parenthetical citation, which includes the page number in the original work. For example:

In 1889, Howard Cleary demonstrated for the first time that water not only seeks its own level, it tries to go even lower than that. Madison (1897) made the observation that ice is a form of water that does not apparently seek its own level, although it does upon melting. Chalmers (1899, p. 53) replied, "There is little I can do to stop this nonsense." The controversy continues to this day, even in places as remote as Australia, Newfoundland and western Pennsylvania (Hackett, 1978).

Each author referred to above (Cleary, Madison, Chalmers and Hackett) should be listed in the References Cited section with the appropriate paper or book. Every citation in the text must be included in the References Cited, and every citation listed there must be referred to in the text. Three or more authors are cited in the text as "et al." following the senior author (for example, Taylor et al., 2003), but all of the

authors are listed in the references.

### **REFERENCES CITED:**

In the following section the following abbreviations are used:

Lastname = the last name of the author

F = The initial for the first name of the author

M = The middle initial of the author

V = volume number (when it says v. #...you must include the letter v. with the number)

p = page number (when it says p. #...you must include the letter p. with the number)

### = numerical value for the volume number or page number (or numbers)

#### **ABSTRACT**

Lastname, F.M., year, Title of abstract: Name of Conference. City, State, Abstracts, v. #, p. ###.

- Fitzgerald, P.G., 1989, Uplift and formation of Transantarctic Mountains: Applications of apatite fission track analysis to tectonic problems: International Geological Congress, 28th, Washington, D.C., Abstracts, v. 1, p. 491.
- LeMasurier, W.E., and Landis, C.A., 1991, Plume related uplift measured by fault displacement of the West Antarctic erosion surface, Marie Byrd Land [abs.]: Eos (Transactions, American Geophysical Union), v. 72, p. 501.

[Previous format for AGU abstracts. See Reusch et al., 2013, for new format.]

- McKinnon, W.B., and Schenk, P.M., 2000, Chaos on Io: A model for formation of mountain blocks by crustal heating, melting, and tilting: Houston, Texas, Lunar and Planetary Institute, Lunar and Planetary Science XXXI, CD-ROM, abstract 2079.
- Reusch, D.B., Karmosky, C.C., Lampkin, D.J., and Schneider, D.P., 2013, Will a warmer west Antarctic also bring a wetter ice sheet?: Abstract C21E-07 presented at 2013 Fall Meeting, AGU, San Francisco, California, 9–13 December.
- Sears, J.W., 2012, Making Nuna and breaking Rodinia: Implications of Siberia-Laurentia connections for supercontinent cycles: Geological Society of America Abstracts with Programs, v. 44, no. 7, p. 378.

[Note—Beginning with volume 21 (1989), Geological Society of America Abstracts with Programs started numbering the pages of each Section Meeting book and the Annual Meeting book separately (not sequentially). Therefore, issue numbers should be included starting with volume 21 but can be skipped for years before that.]

### Воок

Author, F.M., year, Title of book: City, State, Publisher, p. ###.

[Note— If using a section of the book, use "p. ###", where ### = the pages used; e.g., "p. 134-165." If using the entire book use "### p." where ### = total number of pages in the book; e.g., "p. 421."]

Allmendinger, R.W., Cardozo, N., and Fisher, D., 2011, Structural Geology Algorithms: Vectors and Tensors in Structural Geology: New York, Cambridge University Press, 304 p.

- Burchfiel, B.C., Chen Zhiliang, Hodges, K.V., Liu Yuping, Royden, L.H., Deng Changrong, and Xu Jiene, 1992, The South Tibetan Detachment System, Himalayan Orogen: Extension Contemporaneous with and Parallel to Shortening in a Collisional Mountain Belt: Geological Society of America Special Paper 269, 41 p.
- Coffin, M.F., Frey, F.A., Wallace, P.J., et al., 2000, Proceedings of the Ocean Drilling Program, Initial reports, Volume 183: College Station, Texas, Ocean Drilling Program, CD-ROM.

  [This example is an exception to GSA style. Include names of co-chief scientists; additional names may be substituted with "et al."]
- Hatcher, R.D., Jr., Carlson, M.P., McBride, J.H., and Martínez Catalán, J.R., eds., 2007, 4-D Framework of Continental Crust: Geological Society of America Memoir 200, 632 p.
- Vogt, P., and Tucholke, B., eds., 1986, The Western North Atlantic Region: Boulder, Colorado, Geological Society of America, Geology of North America, v. M, p. 617-630.

## CHAPTER IN A BOOK/PAPER IN A MULTIAUTHOR VOLUME

Author, F.M., year, Paper name, *in* Author, F,M., ed., Title of book, Volume #: PubCity, State, Publisher, p. ###.

[Note— "in" must be italicized.]

- Elburg, M.A., Smet, I., and De Pelsmaeker, E., 2014, Influence of source materials and fractionating assemblage on magmatism along the Aegean Arc, and implications for crustal growth, *in* Gómez-Tuena, A., Straub, S.M., and Zellmer, G.F., eds., Orogenic Andesites and Crustal Growth: Geological Society, London, Special Publication 385, p. 137–160, doi:10.1144/SP385.1.
- Sawyer, D.S., Buffler, R.T., and Pilger, R.H., 1991, The crust under the Gulf of Mexico basin, *in* Salvador, A., ed., The Gulf of Mexico Basin: Boulder, Colorado, Geological Society of America, Geology of North America, v. J, p. 53–72.
- Shipboard Scientific Party, 1987, Site 612, *in* Poag, C.W., Watts, A.B., et al., Initial Reports of the Deep Sea Drilling Project, Volume 95: Washington, D.C., U.S. Government Printing Office, p. 31–153.
- Taylor, J.C.M., 1990, Upper Permian—Zechstein, *in* Glennie, K.W., ed., Introduction to the Petroleum Geology of the North Sea (third edition): Oxford, UK, Blackwell, p. 153–190.

### COMMENT, DISCUSSION, REPLY

- Retallack, G.J., 1993, Classification of paleosols: Discussion: Geological Society of America Bulletin, v. 105, p. 1635–1636, doi:10.1130/0016-7606(1993)1052.3.CO;2.
- Retallack, G.J., 2014, How well do fossil assemblages of the Ediacara Biota tell time?: Comment: Geology, v. 42, p. e332, doi:10.1130/G34781C.1.

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- Saltzman, M.R., 2001, Earliest Carboniferous cooling step triggered by the Antler orogeny?: Reply: Geology, v. 29, p. 93, doi:10.1130/0091-7613(2001)0292.0.CO;2. Page 2 of 3

### **COMPUTER PROGRAM**

Lahr, J.C., 1999, HYPOELLIPSE: A computer program for determining local earthquake hypocentral parameters, magnitude, and first-motion pattern: U.S. Geological Survey Open-File Report 99-23.

Lindquist, W.B., Lee, S.M., Oh, W., Venkatarangan, A.B., Shin, H., and Prodanovic, M., 2005, 3DMA-Rock: A software package for automated analysis of rock pore structure in 3-D computed microtomography images: Department of Applied Mathematics and Statistics, State University of New York, Stony Brook, http://www.ams.sunysb.edu/~lindquis/3dma/3dma\_rock/3dma rock.html.

### **D**ATABASE

- Schweitzer, P.N., 1993, Modern average global sea-surface temperature: U.S. Geological Survey Digital Data Series DDS10.
- U.S. Geological Survey, 2006, Quaternary fault and fold database for the United States: http://earthquake.usgs.gov/regional/qfaults/ (accessed June 2012).
- Wentworth, C.M., Fisher, G.R., Levine, P., and Jachens, R.C., 1995, revised 2007, The surface of crystalline basement, Great Valley and Sierra Nevada, California: A digital map database: U.S. Geological Survey Open-File Report 95-96, v. 1.1, 18 p. and database (available at http://pubs.usgs.gov/of/1995/96/).

#### **G**UIDEBOOK

Author, F.M., year, Name of guidebook chapter, *in* Guidebook name: City, State, Publisher, ### p.

[Note— If using a section of the book, use "p. ###", where ### = the pages used; e.g., "p. 134-165." If using the entire book use "### p." where ### = total number of pages in the book; e.g., "p. 421."]

- Aslan, A., Karlstrom, K.E., Crossey, L.J., Kelley, S., Cole, R., Lazear, G., and Darling, A., 2010, Late Cenozoic evolution of the Colorado Rockies: Evidence for Neogene uplift and drainage integration, *in* Morgan, L.A., and Quane, S.L., eds., Through the Generations: Geologic and Anthropogenic Field Excursions in the Rocky Mountains from Modern to Ancient: Geological Society of America Field Guide 18, p. 21–54, doi:10.1130/2010.0018(02).
- Barton, C.C., and Hsieh, P.A., 1989, Physical and hydrologicflow properties of fractures, *in* International Geological Congress, 28th, Field Trip Guidebook T385: Washington, D.C., American Geophysical Union, 36 p.
- Blackstone, D.L., Jr., 1990, Rocky Mountain foreland exemplified by the Owl Creek Mountains, Bridger Range and Casper Arch, central Wyoming, *in* Specht, R., ed., Wyoming Sedimentation and Tectonics: Wyoming Geological Association, 41st Annual Field Conference, Guidebook, p. 151–166.

### IN PRESS

[Manuscript has been formally accepted, but not published.]

Thomson, O.A., Cavosie, A.J., Moser, D.E., Barker, I., Radovan, H.A., and French, B.M., 2014, Preservation of detrital shocked minerals derived from the 1.85 Ga Sudbury impact structure in modern alluvium and Holocene glacial deposits: Geological Society of America Bulletin, doi: 10.1130/B30958.1 (in press).

[Include DOI number if available.]

### **JOURNAL ARTICLE**

Author, F.M., year, Title of article: Title of Journal, v. #, p. ##-##, doi: ###.

[Note— Include both page numbers and DOI when available.]

- Arias, O., and Denyer, P., 1991, Estructura geológica de la región comprendida en las hojas topográficas Abras, Caraigres, Candelaria y Río Grande, Costa Rica: Revista Geológica de América Central, no. 12, p. 61–74.
- Balco, G., Stone, J.O., and Mason, J.A., 2005, Numerical ages for Plio-Pleistocene glacial sediment sequences by 26Al/10Be dating of quartz in buried paleosols: Earth and Planetary Science Letters, v. 232, p. 179–191, doi:10.1016/j.epsl.2004.12.013.
- Brown, J.R., Beroza, G.C., Ide, S., Ohta, K., and Shelly, D.R., 2009, Deep low-frequency earthquakes in tremor localize to the plate interface in multiple subduction zones: Geophysical Research Letters, v. 36, L19306, doi:10.1029/2009GL040027.
- Coogan, L.A., and Hinton, R.W., 2006, Do the trace element compositions of detrital zircons require Hadean continental crust?: Geology, v. 34, p. 633–636, doi:10.1130/G22737.1.
- Newell, A.J., Sennikov, A.G., Benton, M.J., Molostovskaya, I.I., Golubev, V.K., Minikh, A.V., and Minikh, M.G., 2010, Disruption of playa–lacustrine depositional systems at the Permo-Triassic boundary: Evidence from Vyazniki and Gorokhovets on the Russian Platform: Journal of the Geological Society, v. 167, p. 695–716, doi:10.1144/0016-76492009-103.
- Varnavskiy, V.G., Kirillova, G.L., Krapiventseva, V.V., and Kuznetsov, V.Y., 1995, Deltaic complexes of the sedimentary basins (far northeast) [translated from Litologopetrofizicheskiye kriterii neftegazonosnosti: Moscow, Nauka, 1990, p. 127–137]: Petroleum Geology, v. 29, p. 54–66.
- Walter, L.M., Bischof, S.A., Patterson, W.P., and Lyons, T.L., 1993, Dissolution and recrystallization in modern shelf carbonates: Evidence from pore water and solid phase chemistry: Royal Society of London Philosophical Transactions, ser. A, v. 344, p. 27–36.

### MAP

- Bayley, R.W., and Muehlberger, W.R., compilers, 1968, Basement rock map of the United States, exclusive of Alaska and Hawaii: U.S. Geological Survey, scale 1:2,500,000, 2 sheets.
- Bedford, D.R., Miller, D.M., and Phelps, G.A., 2010, Surficial geologic map of the Amboy 30' × 60' quadrangle, San Bernardino County, California: U.S. Geological Survey Scientific Investigations Map 1309, scale 1:100,000.
- Ernst, W.G., 1993, Geology of the Pacheco Pass quadrangle, central California Coast Ranges: Geological Society of America Map and Chart Series MCH078, scale 1:24,000, 1 sheet, 12 p. text.
- Guth, A., 2014, Maps of the Southern Kenya Rift: Geological Society of America Digital Maps and Charts Series DMCH016, 6 PDFs, http://www.geosociety.org/maps/2014- DMCH016/.
- Long, S.P., Henry, C.D., Muntean, J.H., Edmondo, G.P., and Thomas, R.D., 2012, Preliminary geologic map of the southern Eureka mining district, Eureka and White Pine Counties, Nevada: Nevada Bureau of Mines and Geology Open-File Report 12-6, scale 1:24,000.

### **ONLINE PDF**

Bureau of Land Management, 2010, Plan amendment/final EIS for the Genesis Solar Energy Project, Vol 1: http://energy.gov/sites/prod/files/nepapub/nepa\_documents/Re dDont/EIS-0455-FEIS-01-2010.pdf (accessed March 2014).

#### **OPEN-FILE REPORT**

- Choquette, A.F., 2014, Pesticides and nitrate in groundwater underlying citrus croplands, Lake Wales Ridge, central Florida, 1999–2005: U.S. Geological Survey Open-File Report 2013-1271, 35 p., http://pubs.usgs.gov/of/2013/1271/pdf/of2013-1271.pdf.
- Lotspeich, R.R., 2007, The quality of water and bottom material in Lunga Reservoir, Virginia, September 2004 through August 2005: U.S. Geological Survey Open-File Report 2007-1053, 52 p.
- Wilson, A.B., 2001, Compilation of various geologic time scales: U.S. Geological Survey Open-File Report 01-0052, Page 3 of 3 http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0052/ (accessed July 2001).

### PAPER IN A GOVERNMENT OR UNIVERSITY SERIAL PUBLICATION

Lastname, F.M., year, Title of paper: Name of Source, v. #, p. ##-##.

- Hay, R.L., 1963, Stratigraphy and zeolitic diagenesis of the John Day Formation of Oregon: University of California Publications in Geological Sciences, v. 42, p. 199–262.
- Smith, D.C., Fox, C., Craig, B., and Bridges, A.E., 1989, A contribution to the earthquake history of Maine, in Anderson, W.A., and Borns, H.W., Jr., eds., Neotectonics of Maine: Maine Geological Survey Bulletin 40, p. 139–148.
- Willingham, C.R., Rietman, J.D., Heck, R.G., and Lettis, W.R., 2013, Characterization of the Hosgri Fault Zone and adjacent structures in the offshore Santa Maria Basin, south-central California: Chapter CC of Evolution of Sedimentary Basins/Onshore Oil and Gas Investigations—Santa Maria Province: U.S. Geological Survey Bulletin 1995-CC, 105 p., http://pubs.usgs.gov/bul/1995/cc/pdf/bul1995cc.pdf.
- Yager, R.M., 1993, Estimation of hydraulic conductivity of a riverbed and aquifer system on the Susquehanna River in Broome County, New York: U.S. Geological Survey WaterSupply Paper 2387, 49 p.

### PROCEEDINGS FROM A SYMPOSIUM OR CONFERENCE

Author, F.M., year, Title of paper, in Title of Proceedings: City, State, Publisher, p. ## to ##.

[Include year of conference if it differs from publication year.]

- Baar, C., 1972, Creep measured in deep potash mines vs. theoretical predictions, in Proceedings, Canadian Rock Mechanics Symposium, 7th, Edmonton: Ottawa, Canada Department of Energy, Mines and Resources, p. 23–77.
- MacLeod, N.S., Walker, G.W., and McKee, E.H., 1976, Geothermal significance of eastward increase in age of upper Cenozoic rhyolitic domes in southeastern Oregon, in Proceedings, Second United Nations Symposium on the Development and Use of Geothermal Resources, San Francisco, May

1975, Volume 1: Washington, D.C., U.S. Government Printing Office (Lawrence Berkeley Laboratory, University of California), p. 465–474.

Wang, Y., Forsyth, D.W., Rau, C.J., Carriero, N., Schmandt, B., Gaherty, J.B., and Savage, B., 2013, Fossil slabs attached to unsubducted fragments of the Farallon plate: Proceedings of the National Academy of Sciences of the United States of America, v. 110, no. 14, p. 5342–5346, doi:10.1073/pnas.1214880110.

#### **THESIS**

Author, F.M., year, Title of thesis [Ph.D. thesis]: School Name, ### p.

[Note— "### p." refers to the total number of pages in the thesis.]

Wopat, M.A., 1990, Quaternary alkaline volcanism and tectonics in the Mexican Volcanic Belt near Tequila, Jalisco, southwestern Mexico [Ph.D. thesis]: Berkeley, University of California, 277 p.

### **WEBSITE**

Webpage Organization, year, Name of Webpage. URL: http://www.url.com/. Accessed Month, ##, year.

MARGINS, 1999, The Seismogenic Zone Experiment (SEIZE): Science plan:

http://www.soest.hawaii.edu/margins/SEIZE\_sci\_plan html (accessed July 2001).

Johnson, A.B., 2001, Raw data for relay stations AB1–AB15 in the Mojave Desert:

http://www.seismo.berkeley.edu/mojave (accessed December 2001).

#### Notes—

Websites should only appear in References Cited section when referring to published entities offered on a website, including articles, books, blogs, etc. When citing an entire website or referring to general content on the site, mention the title of the site in the main text of the paper with the web address appearing in parentheses beside the title. It would not need to appear in the References Cited section.

Webpages are awkward in a paper, and a printed source is a preferred alternative when possible. If the page has a clear author, list them instead of the organization. The title of the page is usually printed at the top of the webpage. The date after the author is the year of the page's last update to the webpage, or the year you accessed it, if the updated year is unclear. Webpages are ephemeral sources, so most journals do not accept them as references in a paper.