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BIBLIOGRAPHY OF THE GEOLOGY OF MISSOURI

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by

Jerry D. Vineyard

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MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES
Wallace B. Howe, State Geologist and Director
Rolla, Missouri 65401

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MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

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INTRODUCTION

This bibliography lists published and unpublished papers concerning the geology of the State of Missouri that were issued during 1970. A few papers which appeared before 1970 but which were not included in previous bibliographies are also listed. Papers which deal with the geology of areas outside of the state are cited if they contain information which may be pertinent to the geology of Missouri.

Although an effort has been made in this bibliography to include the title of every paper pertaining to the geology of Missouri that has appeared in the last year, some have undoubtedly been overlooked. If an omission is noted, the missing publication should be brought to the attention of the editor so that it may be included in future listings.

The editor wishes to thank the librarians who have assisted in the preparation of this bibliography. Acknowledgments are especially due to the following institutions for the availability of their libraries and the generous assistance of their librarians: The Geology Library, University of Missouri--Columbia; Library, University of Missouri--Rolla; Geology Library, Washington University, St. Louis, Missouri; and Pius XII Memorial Library, St. Louis University, St. Louis, Missouri. He also wishes to thank Mrs. Bonnie Happel for preparing the typescript, and the staff of the Missouri Geological Survey for reading the manuscript.

BIBLIOGRAPHY

Alberstadt, Leonard P.

 Some Middle and Upper Ordovician brachiopods from Oklahoma, Missouri, and Tennessee (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 3, p. 191-192, Apr. 1970.

Alcott, Arthur David

 Clay mineralogy and compaction characteristics of residual clay soils used in earth dam construction in the Ozark province of Missouri: unpubl. Masters thesis, U. of Mo.--Rolla, Rolla, Mo., 1970.

Aley, Thomas J.

1. Temperature fluctuations of a small Ozark spring: Caves and Karst, v. 12, n. 4, p. 25-30, 3 figs., 2 tbls., July-Aug. 1970.

Amsden, Thomas W.

1. A Late Ashgillian (Ordovician) brachiopod fauna from the Edgewood Formation, Illinois and Missouri (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 482-483, Nov. 1970.

Anderson, D. B.

 (and Burmeister, I. L.) Floods of March-May 1965 in the upper Mississippi River basin: U. S. Geol. Survey, Water-Supply Paper 1850-A, 448 p., 50 figs., 5 tbls., 1970.

Anderson, Jay Earl, Jr.

- Recognition and time distribution of texturally altered welded tuff: Geol. Soc. Am. Bull., v. 81, n. 1, p. 287-292, 3 figs., Jan. 1970.
- Snowflake texture not diagnostic of devitrified ash-flow tuffs:
 Reply: Geol. Soc. Am. Bull., v. 81, n. 8, p. 2529-2530, Aug. 1970.
 Anderson, K. H. Refer to Knight, R. D.

Anderson, R. Ernest

- Ash-flow tuffs of Precambrian age in southeast Missouri (contribution to Precambrian geology no. 2): Mo. Geol. Survey and Water Resources, Rept. Inv. 46, 50 p., 8 figs., 1 pl., 1 tbl., Apr. 1970.
 Anonymous
 - P & M's Empire mine serves utility: Coal Age, p. 75-78, illus., Sept. 1970.

 The New Lead Belt: Eng. Min. Jour., v. 171, n. 10, p. 67-78, Oct. 1970.

Averitt, Paul

Stripping-coal resources of the United States--January 1, 1970:
 U. S. Geol. Survey, Bull. 1322, 34 p., 1 fig., 2 tbls., 1970.
 Baerreis, David A. Refer to Bryson, Reid A.
 Basson, Philip W.

(and Wood, Joseph M.) <u>Algites enteromorphoides</u> sp. nov. a filamentous alga of Devonian age from Missouri: Am. Midland Naturalist, v. 83, n. 1, p. 283-290, 7 figs., 1970.

Beales, F. W.

1. (and Onasick, E. P.) Stratigraphic habitat of Mississippi Valley type ore bodies: Trans. Instn. Min. Metall. (Sec. B: Appl. Earth Sci.), v. 79, p. 145-154, 2 figs., 3 tbls., 1970.

Berry, Archie W., Jr.

1. Precambrian volcanic rocks associated with the Taum Sauk caldera, St. Francois Mountains, Missouri: unpubl. Ph. D. diss., U. Kans., Lawrence, Kans., Sept. 1970.

Beveridge, Thomas R.

 Geology of the Bassville Quadrangle, Greene County, Missouri: Mo. Geol. Survey and Water Resources, Geol. Quad. Map Ser. n. 4, map with 35-page text, illus., 1970.

Boswell, E. H. Refer to Cushing, E. M.

Brightwell, Linda. Refer to Thomson, Kenneth C.

Brobst, Donald A.

 Barite: World production, reserves, and future prospects: U. S. Geol. Survey, Bull. 1321, 46 p., 1 fig., 4 tbls., 1970.

Brower, James C.

 Crinoid fauna of the Girardeau Limestone (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 734-736, Nov. 1970.
 Brown, John S.

 Mississippi Valley type lead-zinc ores: A review and sequel to the "Behre Symposium": Mineral. Deposita (Berl.), v. 5, p. 103-119, 1 fig., 2 tbls., 1970. Brucker, Eugene E.

1. Treatment and development of karst areas: Soc. Min. Eng., Preprint n. 70-I-346, 16 p., 7 figs., Oct. 1970.

Bryson, Reid A.

(Baerreis, David A.; and Wendland, Wayne M.) The character of late-glacial and post-glacial climatic changes, in Pleistocene and Recent environments of the central Great Plains, Wakefield Dort, Jr., and J. Knox Jones, Jr., eds.: Dept. Geol., U. Kans., Spec. Publ. 3, p. 53-74, 14 figs., 3 tbls., 1970.

Burks, Edward L. Refer to Thomson, K. C., et al. Burmeister, I. L. Refer to Anderson, D. B.

Christ, C. L.

- (and Hostetler, P. B.) Studies in the system MgO-SiO₂-CO₂-H₂O
 (II): The activity-product constant of magnesite: Am. Jour. Sci. v. 268, n. 5, p. 439-453, 1 fig., 4 tbls., May 1970.

 Christiansen, Carl R.
 - (and Scott, James J.) Mining systems in the New Lead Belt of southeast Missouri, in Volume I, Mining and concentrating of lead and zinc, Donald O. Rausch and Burt C. Mariacher, eds.: AIME World Symp. on Mining and Metallurgy of Lead and Zinc, vol. I, p. 206-217, 1970.

Chukhrov, F. V.

- Analogues of flint clays in Soviet literature: Clays and Clay Minerals, v. 18, p. 1-5, 2 figs., 2 tbls., Apr. 1970.
 Clark, Christopher N.
 - Trace elements in Missouri barite: unpubl. Masters thesis, U. Mo.--Columbia, Columbia, Mo., Aug. 1970.

Cushing, E. M.

- (Boswell, E. H.; Speer, P. R.; Hosman, R. L.; and others) Availability of water in the Mississippi embayment: U. S. Geol. Survey, Prof. Paper 448-A, 13 p., 7 figs., 7 pls., 3 tbls., 1970.
 Damberger, Heinz H.
 - Coalification patterns of Pennsylvanian coal basins of the U. S. A. (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 532, Nov. 1970.

Dreeszen, Vincent H.

 The stratigraphic framework of Pleistocene glacial and periglacial deposits in the Central Plains, in Pleistocene and Recent environments of the central Great Plains, Wakefield Dort, Jr., and J. Knox Jones, Jr., eds.: Dept. Geol., U. Kans., Spec. Publ. 3, p. 9-22, 4 figs., 1 tbl., 1970.

DuMontelle, Paul B. Refer to Lutzen, Edwin E.

Earney, Fillmore C. F.

1. New ores for old furnaces: pelletized iron: Annals Assoc. Am. Geographers, v. 59, n. 3, p. 512-534, 10 figs., 14 tbls., Sept. 1969.

Emerson, John W.

1. Consequences of artificial stream channel alteration, Johnson County, Missouri (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 547, Nov. 1970.

Emmett, L. F.

1. (and Jeffery, H. G.) Reconnaissance of the ground-water resources of the Missouri River alluvium between Jefferson City and Miami, Missouri: U. S. Geol. Survey, Hydrologic Atlas HA-340, one sheet, scale 1:125,000, text, 1969 [1970].

Engstrom, J. C. Refer to Fraunfelter, G. H.

Ergin, Kazim

 Observed intensity-epicentral distance relations in earthquakes: Seismol. Soc. Am. Bull., v. 59, n. 3, p. 1227-1238, illus., tbls., 1969.

Ewing, M. Refer to Kuo, J. T.

Feder, Gerald L.

- The use of springflow-recession curves to determine the source of springflow in the Missouri Ozarks (abstract): Natl. Speleol. Soc. Bull., v. 31, n. 2, p. 38, 1969.
- A semiquantitative method for determining the source of springflow in the Missouri Ozarks, in Geological Survey research 1970: U. S. Geol. Survey, Prof. Paper 700-C, p. 214-217, 4 figs., 1970.

Fellows, L. D.

1. Dissertations and theses on Missouri geology: Mo. Mineral Industry

- News, v. 10, n. 4, p. 87-90, Apr. 1970.
- Geology of the Galloway Quadrangle, Greene County, Missouri: Mo. Geol. Survey and Water Resources, Geol. Quad. Map. Ser. n. 5, map with 15-page text, illus., 1970.

Fischer, Joseph A.

 (Leeds, David J.; and Murphy, William J.) Seismo-tectonic relationships of the New Madrid, Missouri, region (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 551, Nov. 1970.

Fisher, Irving S.

- Selective removal of dolomite from a limestone host by weathering (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 3, p. 209, Apr. 1970.
- Selective weathering of dolomite bodies from a limestone host: Geol. Soc. Am. Bull., v. 81, p. 3757-3758, 2 figs., Dec. 1970.
 Fisher, Richard P. Refer to McKnight, Edwin T.
 Foley, Robert
- A boreal fauna from Bat Cave, Pulaski County, Missouri (abstract): Natl. Speleol. Soc. Bull., v. 31, n. 2, p. 44, 1969.
 Fraunfelter, George H.
 - Dibunophyllid corals from the Houx Limestone (Pennsylvanian) in north-central Missouri: Trans. Ill. Acad. Sci., v. 63, n. 3, p. 319-323, 6 figs., Sept. 1970.
 - Silicified corals from the Lingle and St. Laurent Limestones (Middle Devonian) of southern Illinois and southeastern Missouri: Southern Ill. Studies, n. 3, 68 p., 2 figs., 10 pls., 1 tbl., 1970.
 - 3. (and Engstrom, J. C.) Development of the rugose coral <u>Microcyclus</u> <u>discus</u> Meek and Worthen from the Devonian of Illinois and Missouri: Jour. Paleontology, v. 44, n. 6, p. 1085-1091, illus., 1970.

Gerlach, Russell L. Refer to Rafferty, Milton D.

Gillerman, Elliot

- Roselle lineament of southeast Missouri: Geol. Soc. Am. Bull.,
 v. 81, n. 3, p. 975-982, 7 figs., Mar. 1970.
 Goodfield, Alan G.
 - Rockfalls and landslides along State Highway 79 at Clarksville, Missouri: Proc. 21st Ann. Hwy. Geol. Symp., U. Kans., p. 19-28, 6 figs., Apr. 1970.

Green, John C.

 Snowflake texture not diagnostic of devitrified ash-flow tuffs: Discussion: Geol. Soc. Am. Bull., v. 81, n. 8, p. 2527-2528, 2 figs., Aug. 1970.

Hach-Ali, P. Fenoll

1. (and Ottemann, J.) Linneit and bravoit von Fredericktown, Missouri (eine Mikrosonde-Untersuchung): Aufschluss, v. 21, n. 1, p. 29-33, illus., tbls., 1970.

Hargrove, Gene

1. Possible former entrance to Devils Icebox, Boone County, Missouri: Mo. Speleology, v. 11, n. 3, p. 52-56, 1 fig., July 1970.

Harvey, E. J.

 (and Skelton, John) An evaluation of anomalous streamflow patterns by seepage runs and radar imagery in the Missouri Ozarks: Soc. Min. Eng., Preprint n. 70-AG-331, 15 p., 4 figs., Oct. 1970 (abstract: Min. Eng., v. 22, n. 9, p. 54, Jan. 1970).

Herod, Buren C.

 River Cement doubles capacity within first four years: Pit and Quarry, v. 63, n. 1, p. 92-96, 98, 102, 107, illus., July 1970.
 Homyk, Anthony. Refer to Skelton, John.

Hosman, R. L. Refer to Cushing, E. M.

Hostetler, Paul B. Refer to Christ, C. L.; and Siebert, Robert M.

Hrebec, Dennis J. Refer to Rafferty, Milton D.

Jachens, R. C. Refer to Kuo, J. T.

Jackimovicz, Joseph J.

- The petrology of two valley-fill sandstones in western Missouri: unpubl. Masters thesis, U. Mo.--Columbia, Columbia, Mo., June 1970.
 James, Gerard W.
- Comment on a paper "Carbonate facies and paleogeography of the Blackjack Creek Formation (Pennsylvanian), Missouri" by W. J. Neal, 1969: Jour. Sed. Petrology, v. 40, n. 2, p. 765-767, 1970.
 Jeffery, H. G. Refer to Emmett, L. F.
 Jenkins, Gomer, Jr.
 - 1. Hydraulic borrow materials in urban areas: Proc. 21st Ann. Hwy. Geol. Symp., U. Kans., p. 83-96, Apr. 1970.

Kettenbrink, E. C. Refer to Manger, Walter L.

King, James E. Refer also to Mehringer, Peter J., Jr.

Wisconsin-age boreal assemblages from the Ozarks of western Missouri (abstract): Ariz. Acad. Sci. Jour., v. 6, 1970; Proc. Supp., p. 23, 1970.

Kisvarsanyi, Eva B. Refer to Wharton, Heyward M.

Kline, Judith K. Refer to Urban, James B.

Knight, R. D.

 (McCracken, Earl, and Anderson, K. H.) Map of selected deep drill holes in Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, scale 1:1,000,000, rev. Nov. 1970.

Kuo, J. T.

1. (Jachens, R. C.; Ewing, M.; and White, G.) Transcontinental tidal gravity profile across the United States: Science, v. 168, n. 3934, p. 968-971, 2 figs., 1 tbl., 22 May 1970.

Langenheim, R. L., Jr. Refer to Pierce, R. W.

Leeds, David J. Refer to Fischer, Joseph A.

Lindsay, Everett H. Refer to Mehringer, Peter J., Jr.

Lochman-Balk, Christina

Upper Cambrian faunal patterns on the craton: Geol. Soc. Am. Bull.,
 v. 81, n. 11, p. 3197-3224, 11 figs., Nov. 1970.

Lutzen, Edwin D. Refer also to Rockaway, John D., Jr.

 (and DuMontelle, Paul B.) Guidebook to engineering geologic features and land-use relationships in the St. Louis metropolitan area: S. Ill. Univ., Carbondale, Ill., 58 p., 18 figs., 2 apps., Apr. 1970.

McClure, Mike. Refer to Thomson, K. C., et al. McCracken, Earl. Refer to Knight, R. D.

McDougall, Robert B.

 Mineral resources at six reservoir sites in the Blue River basin, Johnson County, Kansas, and Cass County, Missouri, in Blue River, vicinity of Kansas City, Missouri and Kansas: U. S. Cong., 91st, 2d sess., House Doc. 91-332, p. 108-120, tbls., 1970.

McKnight, Edwin T.

1. (and Fisher, Richard P.) Geology and ore deposits of the Picher

field, Oklahoma and Kansas: U. S. Geol. Survey, Prof. Paper 588, 165 p., 11 pls., 45 figs., 10 tbls., 1970.

McMillan, R. Bruce

1. Early canid burial from the western Ozark highland: Science, v. 167, n. 3922, p. 1246-1247, 27 Feb. 1970.

Manger, Walter L.

1. (and Kettenbrink, E. C.) Deformation patterns in pisoliths from the Plattsburg Limestone (Missourian), southeastern Kansas (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 615-616, Nov. 1970.

Martin, James A. Refer also to Wharton, Heyward M.

 (and Rueff, Ardel W.) Paleocollapse--determinant of a quarry failure: Soc. Min. Eng., Preprint n. 70-H-324, 9 p., Oct. 1970.

Mason, Peter Frank

 Some changes in domestic iron mining as a result of pelletization: Annals Assoc. Am. Geographers, v. 59, n. 3, p. 535-551, 9 figs., 5 tbls., Sept. 1969.

Mehringer, Peter J., Jr.

 (King, James E.; and Lindsay, Everett H.) A record of Wisconsinage vegetation and fauna from the Ozarks of western Missouri, in Pleistocene and Recent environments of the central Great Plains, Wakefield Dort, Jr., and J. Knox Jones, Jr., eds.: Dept. Geol., U. Kans., Spec. Publ. 3, p. 173-183, 7 figs., 1 tbl., 1970.

Meyer, Robert P. Refer to Ocola, Leonidas C.

Meyerhoff, Howard A.

 Basement relief beneath the Upper Cambrian of the Mid-continent (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 6, p. 396, Mar. 1970.

Missouri Geological Survey

 Geology, mineral resources, and engineering geology of the South Grand-Osage River basin, Missouri, in Report on the water and related land resources of the South Grand-Osage River basin, Missouri: U. S. Dept. Agri., app., p. 1a-14a, July 1970.

Missouri Speleological Survey

1. Wayne County caves: Missouri Speleology, v. 11, n. 4, p. 72-99,

- illus., Oct. 1970.
- Wright County caves: Missouri Speleology, v. 11, n. 4, p. 100-114, illus., Oct. 1970.

Murphy, William J. Refer to Fischer, Joseph A.

Naeser, Charles W. Refer to Offield, Terry W.

Neal, William J.

1. Carbonate facies and paleogeography of the Blackjack Creek Formation (Pennsylvanian), Missouri--Reply to comment by G. W. James [1970] on 1969 paper: Jour. Sed. Petrology, v. 40, n. 2, p. 767-768, 1970.

1. Reconnaissance heavy metals survey in the Stoutland, Missouri Quadrangle (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 4, p. 294, 1970.

Ocola, Leonidas C.

Nichols, Chester E.

 (and Meyer, Robert P.) Regional upper crustal structure of Midcontinent of U. S. A. (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 638, Nov. 1970.

Offield, Terry W.

- (Pohn, Howard A.; and Naeser, Charles W.) The character and origin
 of the Decaturville, Missouri, cryptoexplosion structure (abstract):
 Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 639, Nov. 1970.
 Ohle, Ernest L.
 - Mississippi Valley type ore deposits--a general view, in Lead-zinc deposits in the Kootenay Arc, northeastern Washington and adjacent British Columbia, Society of Economic Geologists 1970 northwest field conference guidebook, A. E. Weissenborn, ed.: Wash. Div. Mines and Geology, Bull. 61, p. 5-15, 3 figs., 1970.

Onasick, E. P. Refer to Beales, F. W.

Ottemann, J. Refer to Hach-Ali, P. Fenoll.

Ouelette, Robert Greenleaf

 Upper crustal structure in the Newport, Arkansas area: unpubl. Masters thesis, Wash. U., St. Louis, Mo., Jan. 1970.

Owen, Luella Agnes

1. Cave regions of the Ozarks and Black Hills, with a new introduction by Jerry D. Vineyard: Johnson Reprint Corp., New York, xlii + 228

p. illus., 1970.

Pauken, Robert John, Jr.

- A population study of the Pleistocene molluscan faunas in loess of the Missouri River basin in Missouri (abstract): Diss. Abs. Internatl., Sec. B, Sci. and Eng., v. 30, n. 9, p. 4285B, 1970.
 Paul, R. W.
 - The age and origin of the Decaturville structure, Camden and Laclede Counties, Missouri: unpubl. Masters thesis, U. Kans., Lawrence, Kans., Oct. 1970.

Pierce, R. W.

(and Langenheim, R. L., Jr.) Surface patterns on selected Mississippian conodonts: Geol. Soc. Am. Bull., v. 81, n. 11, p. 3225-3236, 5 figs., Nov. 1970.

Pohn, Howard A. Refer to Offield, Terry W.

Rafferty, Milton D.

1. (Gerlach, Russell L.; and Hrebec, Dennis J.) Atlas of Missouri: Aux-Arc Research Assoc., 88 p., maps, 1970.

Reams, Max W.

1. Cave sediments and Ozark geomorphic history (abstract): Natl. Speleol. Soc. Bull., v. 31, n. 2, p. 42-43, 1969.

Richards, Marjorie P.

1. 1970 directory of Missouri geologists and geophysicists: Assoc. Mo. Geologists, Rolla, Mo., 33 p., tbls., 1970.

Rimbach, Don. Refer to Thomson, K. C., et al.

Robertson, Charles E. Refer to Wharton, Heyward M.

Rockaway, John D., Jr.

- (and Lutzen, Edwin E.) Engineering geology of the Creve Coeur Quadrangle, St. Louis County, Missouri: Mo. Geol. Survey and Water Resources, Eng. Geol. Ser. n. 2, 19 p., map, 9 figs., 3 tbls., 1970; (abstract: Min. Eng., v. 22, n. 9, p. 49, Jan. 1970).
 Rostvedt, J. O.
 - 1. (and others) Summary of floods in the United States during 1965: U. S. Geol. Survey, Water-Supply Paper 1850-E, 110 p., 52 figs., 34 tbls., 1970.

Rother, Charlotte

- (and Rother, Hubert E., Jr.) Historic caves of St. Louis, Missouri: Mo. Speleology, v. 11, n. 3, p. 57-71, illus., tbl., July 1970.
 Rother, Hubert E., Jr. Refer to Rother, Charlotte.
- Rueff, Ardel. Refer also to Wharton, Heyward M.; and Martin, James A.
 - 1. Milestones in Missouri mining: Mo. Mineral Industry News, v. 10, n. 3, p. 58-65, 1970.

Ruhe, Robert V.

Soils, paleosols, and environment, <u>in</u> Pleistocene and Recent environments of the central Great Plains, Wakefield Dort, Jr., and J. Knox Jones, Jr., eds.: Dept. Geol., U. Kans., Spec. Publ. 3, p. 37-52, 4 figs., 2 tbls., 1970.

Sable, Edward G.

Source areas of lower Mississippian red beds in eastern Midcontinent, in Geological Survey research, 1970, Chapter D: U. S. Geol. Survey, Prof. Paper 700-D, p. 88-91, 1 fig., 1970.

Saucier, Robert T.

- Origin of the St. Francis sunk lands, Arkansas and Missouri: Geol. Soc. Am. Bull., v. 81, n. 9, p. 2847-2854, 3 figs., Sept. 1970.
 Schwandt, A. J. W.
 - The Magmont operation, in Volume I, Mining and concentrating of lead and zinc, Donald O. Rausch and Burt C. Mariacher, eds.: AIME World Symp. on Mining and Metallurgy of Lead and Zinc, vol. I, p. 218-227, illus., 1970.

Scintrex Airborne Geophysics, Inc.

- Aeromagnetic map of Boonville Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- Aeromagnetic map of California Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- 3. Aeromagnetic map of Fayette Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- 4. Aeromagnetic map of Glasgow Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- Aeromagnetic map of Huntsville Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.

- Aeromagnetic map of Marshall Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- 7. Aeromagnetic map of Marshall 1 Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.
- 8. Aeromagnetic map of Marshall 2 Quadrangle, Missouri: Mo. Geol. Survey and Water Resources, 1 sheet, 1970.

Scott, Gerald L.

1. Bethany Falls Limestone (Missourian) sedimentation and diagenesis,
Missouri and Kansas (abstract): Am. Assoc. Petroleum Geologists
Bull., v. 54, n. 5, p. 869, 1970.

Scott, James J. Refer to Christiansen, Carl R. Shum, Raymond W.

Stratigraphy of the Everton Formation (early medial Ordovician)
along the Buffalo-White River traverse, northern Arkansas (Simpson
Group equivalent): unpubl. Ph. D. diss., U. Nebr., Lincoln, Nebr.,
1970.

Siebert, Robert M.

1. (and Hostetler, Paul B.) The dissolution of dolomite below 100°C (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 7, p. 682-683, Nov. 1970.

Sinotte, Stephen R.

 The fabulous Keokuk geodes--Volume I, Their origin, formation, and development in the Mississippian lower Warsaw beds of southeast Iowa and adjacent states: Wallace-Homestead Co., Des Moines, Iowa, 292 p., illus., 1969.

Skelton, John. Refer also to Harvey, E. J.

- (and Homyk, Anthony) A proposed streamflow data program for Missouri: U. S. Geol. Survey, Water Resources Div., Open-file Rept., 77 p., 3 pls., 3 figs., 9 tbls., 1 app., Rolla, Mo., 1970.
 Snyder, Frank G.
 - Structural lineaments and mineral deposits, eastern United States, in Volume I, Mining and concentrating of lead and zinc, Donald O. Rausch and Burt C. Mariacher, eds.: AIME World Symp. on mining and metallurgy of lead and zinc, vol. I, p. 76-94, 6 figs., 3 tbls., 1970.

Speer, P. R. Refer to Cushing, E. M. Summerson, C. H.

1. (and Swann, D. H.) Patterns of Devonian sand on the North American craton and their interpretation: Geol. Soc. Am. Bull., v. 81, n. 2, p. 469-490, 5 figs., Feb. 1970.

Swann, D. H. Refer to Summerson, C. H.

Taylor, R. L. Refer to Thomson, Kenneth C.

Thompson, Esther H.

 Morphology and taxonomy of <u>Cyclonema</u> Hall (Gastropoda), Upper Ordovician Cincinnatian Province: Bulls. Am. Paleontology, v. 58, n. 261, 284 p., 35 pls., 5 figs., Dec. 1970.

Thompson, Thomas L.

 Lower Pennsylvanian conodonts from McDonald County, Missouri: Jour. Paleontology, v. 44, n. 6, p. 1041-1048, 2 figs., 1 pl., Nov. 1970.

Thomson, Kenneth C.

- (Brightwell, Linda; and Taylor, R. L.) Ash Grove Cave, Greene County, Missouri: Ozark Caver, v. 2, n. 1, 17 p., 4 figs., 5 pls., Jan.-Feb. 1970.
- Smittle Cave, Wright County, Missouri: Ozark Caver, v. 2, n. 2,
 p., 14 figs., 7 pls., Mar.-Apr. 1970.
- 3. (Taylor, R. L.; and Headlee, Wes) Welch Cave, Wright County, Missouri: Ozark Caver, v. 2, n. 3, p. 1-9, illus., maps, May-June 1970.
- 4. (and others) Swallow Hole Cave and vicinity, Greene County, Missouri: Ozark Caver, v. 2, n. 4, p. 1-19, illus., maps, July-Aug. 1970.

Urban, James B.

- (Kline, Judith K.) Chitinozoa of the Cedar City Formation, Middle Devonian of Missouri: Jour. Paleontology, v. 44, n. 1, p. 69-76, 1 pl., 2 figs., Jan. 1970.
- Palynology of the Mineral coal, Desmoinesian Series of Oklahoma and Kansas (abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 4, p. 302, 1970.
- 3. Some new chitinozoans from the Cedar Valley Formation of Iowa

(abstract): Geol. Soc. Am., Abs. with Programs, v. 2, n. 4, p. 302-303, 1970.

Vineyard, Jerry D. Refer also to Owen, Luella Agnes; Williams, James H.; and Thomson, K. C.

- 1. Distribution and characteristics of caves in Missouri (abstract): Natl. Speleol. Soc. Bull., v. 31, n. 2, p. 46-47, 1969.
- 2. Bibliography of the geology of Missouri--1969: Mo. Geol. Survey and Water Resources, Inf. Circ. 23, 44 p., 1970.

Wagner, Ray G.

 Guidebook to the highway geology of Missouri, Route 79TR, Hannibal to Clarksville: Assoc. Mo. Geologists, 17th Ann. Field Trip, 17 p., Sept. 1970.

Wagner, Richard E.

1. Galena--Missouri's state mineral: Rocks and Minerals, v. 45, n. 12, p. 790-793, illus., Dec. 1970.

Wagner, Richard J.

1. Geology and zonation of the southeast Missouri barite district (abstract): Min. Eng., v. 22, n. 1, p. 41, 1970.

Water Resources Division

- Water Resources data for Missouri, Part 1, surface water records, and Part 2, water quality records, 1969: U. S. Geol. Survey, Rolla, Mo., 318 p., 2 figs., tbls., 1970.
- 2. Water resources data for Missouri, Part 1, surface water records, and Part 2, water quality records, 1970: U. S. Geol. Survey, Rolla, Mo., 482 p., 2 figs., tbls., 1970.
- 3. Quality of surface waters of the United States, 1965, Parts 5 and 6, Hudson Bay and upper Mississippi River basins, and Missouri River basin: U. S. Geol. Survey, Water-Supply Paper 1963, 548 p., 1 fig., 1970.

Weaver, H. Dwight

- Historical sketches of other Camden County caves, Part II of a history of the caves of Camden County, Missouri: Missouri Speleology, v. 11, n. 1-2, p. 24-51, illus., Jan.-Apr. 1970.
- Inundated caves of the Lake of the Ozarks, Part I of a history of the caves of Camden County, Missouri: Missouri Speleology, v. 11,

n. 1-2, p. 1-23, illus., Jan.-Apr. 1970. Wells, Jack S. Refer to Wharton, Heyward M. Wells, Philip V.

- Post-glacial vegetational history of the Great Plains: Science, v. 167, n. 3925, p. 1574-1582, 2 figs., 3 tbls., 20 March 1970.
 Wendland, Wayne M. Refer to Bryson, Reid A.
 Wharton, Heyward M.
 - (Martin, James A.; Rueff, Ardel W.; Robertson, Charles E.; Wells, Jack S.; and Kisvarsanyi, Eva B.) Missouri minerals--resources, production, and forecasts: Mo. Geol. Survey and Water Resources, Spec. Publ. 1, 303 p., illus., tbls., Dec. 1969.

White, G. Refer to Kuo, J. T. Whitfield, John W.

 (and Williams, James H.) Underground transportation routes and quarry practices in the Kansas City, Missouri-Kansas area: Proc. 21st Ann. Hwy. Geol. Symp., U. Kans., p. 107-124, 11 figs., Apr. 1970.

Williams, James H. Refer also to Whitfield, John W.

(and Vineyard, Jerry D.) Remote sensing of water pollution problems in karst terrain: Soc. Min. Eng., Preprint n. 70-I-328, 10 p., 1 fig., Oct. 1970.

Wood, Joseph M. Refer to Basson, Philip W.

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Geology of the Galloway Quadrangle, Greene County: Fellows, 2.

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Removal of dolomite from limestone by weathering: Fisher, 1.

Weathering of dolomite bodies from a limestone host: Fisher, 2.

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Petrology of two valley-fill sandstones in western Missouri:

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Carbonate facies and paleogeography of the Blackjack Creek Formation: James, 1; and Neal, 1.

Mineral resources at Blue River reservoir sites: McDougall, 1.

Deformation patterns in pisoliths from the Plattsburg Limestone:

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Bethany Falls Limestone sedimentation and diagenesis: Scott, Gerald L., 1.

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Geology of the Bassville Quadrangle, Greene County: Beveridge, 1.

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Roselle lineament of southeast Missouri: Gillerman, 1.

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Roselle lineament of southeast Missouri: Gillerman, 1. TECTONICS

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ARCHAEOLOGY

Canid burial from Ozark highland: McMillan, 1.

ATLAS

Atlas of Missouri: Rafferty, 1.

BIBLIOGRAPHY

Bibliography of the geology of Missouri--1969: Vineyard, 2.

CLIMATIC CHANGES

Late-glacial and post-glacial climatic changes: Bryson, 1. DIRECTORY

Directory of geologists and geophysicists: Richards, 1.

DISSERTATIONS AND THESES

Dissertations and theses on Missouri geology: Fellows, 1. GEODES

The fabulous Keokuk geodes: Sinotte, 1.

GUIDEBOOK

Guidebook to engineering geology in the St. Louis area: Lutzen, 1. HISTORY

Cave regions of the Ozarks and Black Hills: Owen, 1.

Historic caves of St. Louis: Rother, Charlotte, 1.

Ash Grove Cave, Greene County: Thomson, 1.

Historical sketches of Camden County caves: Weaver, 1.

Inundated caves of the Lake of the Ozarks: Weaver, 2. STATE MINERAL

Galena--Missouri's state mineral: Wagner, Richard E., 1.

VEGETATIONAL HISTORY

Post-glacial vegetational history of the Great Plains: Wells, Philip V., 1.

MAPS

AEROMAGNETIC

Aeromagnetic quadrangle maps: Scintrex Airborne Geophysics, 1-8.
ATLAS

Atlas of Missouri: Rafferty, 1.

CREVE COEUR QUADRANGLE

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GEOLOGIC QUADRANGLE

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Geology of the Galloway Quadrangle, Greene County: Fellows, 2.
GROUND WATER IN ALLUVIUM

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