GEOLOGIC MAP
OF
ST. LOUIS CITY AND COUNTY, MISSOURI

by K.G. Brill, Jr.
1991

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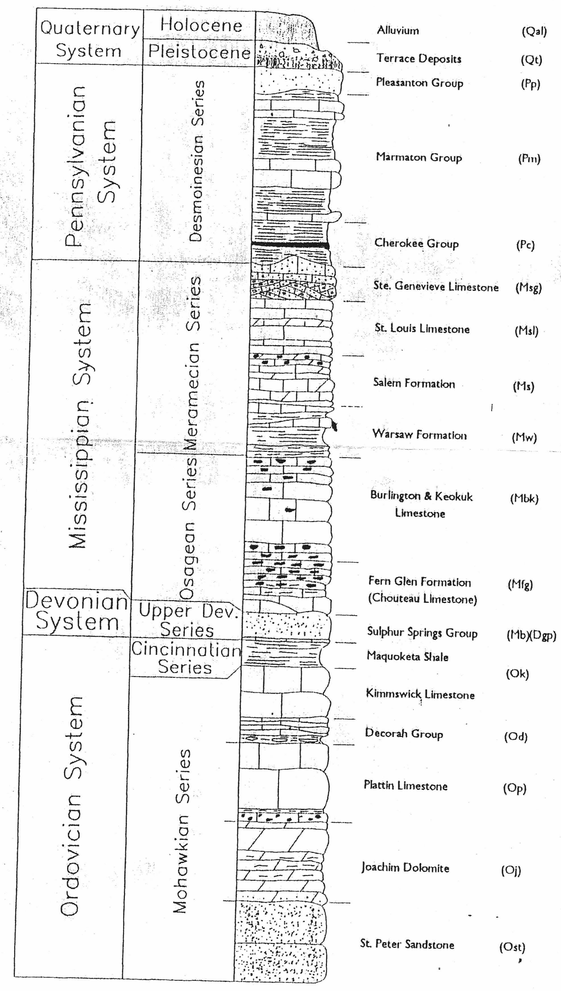

The Geologic Map of St. Louis City and County, Missouri, was compiled by Kenneth G. Brill, Jr., Emeritus Professor of Geology, St. Louis University, from mapping that he completed personally, or that was done by students under his supervision, or by other geologists. The work was performed intermittently during a period from about 1958 through 1989. The index map below shows the quadrangles covered, the principal mapper, and the approximate date. For some maps, the date of mapping is not known.

Knowing that Dr. Brill and his students had mapped much of St. Louis City and County, but the maps were in manuscript form and not readily available, Assistant State Geologist Jerry D. Vineyard suggested in 1986 that the maps, on 7 1/2-minute bases, be compiled into a single map at 1:62,500 scale, to be published and offered to the public. In addition, the manuscript maps were to be reposited in the State Geological Survey's Map Archives, and made available for public use. Dr. Brill agreed to this concept, and offered his assistance in any additional field work and review that might be required.

In addition to the maps, Professor Brill also reposited manuscript material relating to the mapping and the stratigraphic nomenclature in use at the time. He also provided miscellaneous drillhole data, measured sections, and other geologic information he and his students had compiled. Because much of the mapped area is now completely urbanized, Brill's data may be the only geological information available for some areas.

Several staff geologists of the Geological Survey Program assisted in the project by doing field review, extending mapping in areas where new information became available, and in developing a composite column. Charles Robertson, Senior Geologist, served as overall coordinator, and in addition field-checked several quadrangles. He also mapped faulting crossing Highway 100 on the Eureka quad, revealed by new highway construction in western St. Louis County. Mr. Robertson added alluvium to achieve consistency in treatment of floodplain deposits across the entire map. Edge-joining and coordination with Professor Brill were also part of Robertson's assignment.

Dr. Thomas L. Thompson, Principal Stratigrapher for the Geological Survey, reviewed the stratigraphic nomenclature and helped develop a composite column for the map. Because the individual quadrangles were mapped over a fairly long time span, unit boundaries frequently differed from map to map, requiring decisions on how to resolve them. The field work for several of the individual quadrangle maps, especially those covering parts of the City of St. Louis, was done many years ago, and because of subsequent urbanization, cannot be field checked for accuracy or updated to current standards. However, the Brill maps are the only detailed geologic maps of the area that are available, and for this reason, the Geological Survey Program makes them available, but does not certify either the individual maps or the compiled map, as meeting current geologic mapping standards.

Interested users are invited to examine the archive maps at the Survey's headquarters in Rolla, where machine copies at 1:1 ratio may be obtained on request. In addition, access is available to manuscript reports and other geologic data relating to St. Louis City and County.

Qal	Alluvium
Qt	Terrace Deposits
Pp	Pleasanton Group; sandstone
Pm	Marmaton Group; shale, clay, limestone, coal
Pc	Cherokee Group; shale, clay, limestone, coal, sandstone
Msg	Ste. Genevieve Limestone
Msl	St. Louis Limestone
Ms	Salem Formation
Mw	Warsaw Formation
Mbk	Burlington and Keokuk Limestone
Mfg	Fern Glen Formation (and Chouteau Limestone)
Mb	Bushberg Sandstone and Bachelor Formation
Dgp	Glen Park Limestone (Sulphur Springs Group)
Ok	Kimmswick Limestone and Maquoketa Shale
Od	Decorah Group
Op	Plattin Limestone
Oj	Joachim Dolomite
Ost	St. Peter Sandstone

Fault

Anticline

Syncline

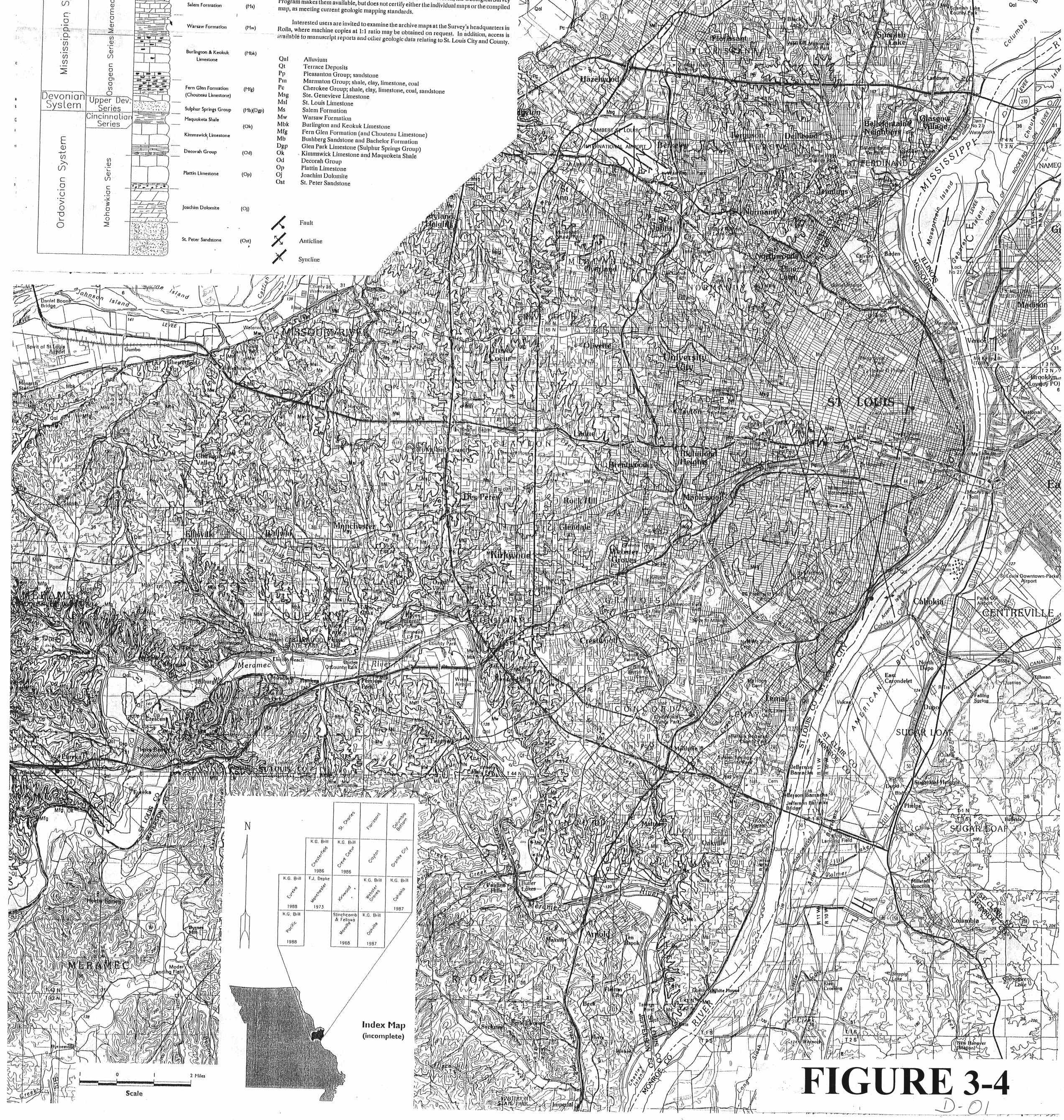

FIGURE 3-4

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