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Limestone Deposits in Nebraska

R. R. Burchett

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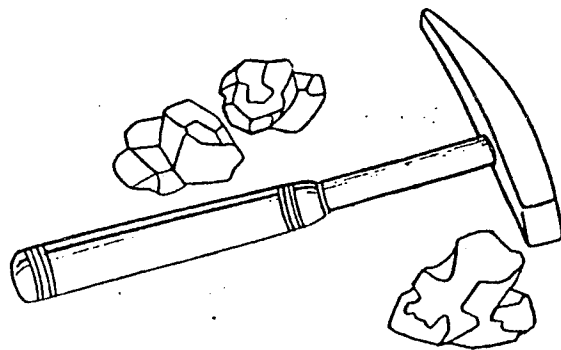
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NEBRASKA GEONOTES

LIMESTONE DEPOSITS IN NEBRASKA

Raymond R. Burchett



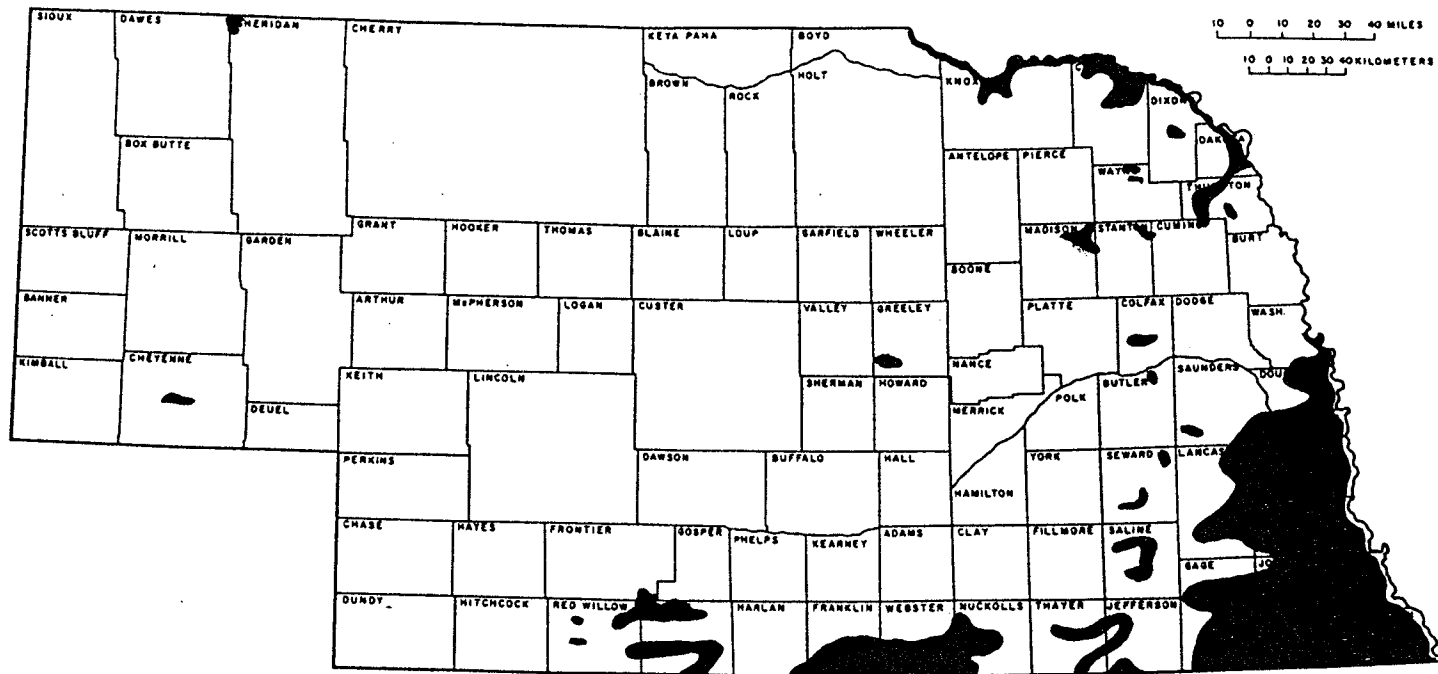
NEBRASKA GEOLOGICAL SURVEY

**Conservation and Survey Division
Institute of Agriculture and Natural Resources
University of Nebraska—Lincoln**



November 1990





LOCATION MAP OF LIMESTONE DEPOSITS AT OR NEAR THE SURFACE IN NEBRASKA

LIMESTONE DEPOSITS IN NEBRASKA Raymond R. Burchett

Limestone is a sedimentary rock composed primarily of the mineral calcite (calcium carbonate CaCO_3). Formed by compaction of calcareous ooze that accumulated on the bottom of ancient seas, limestone commonly includes whole or fragmented shells of marine animals that had died and their hard parts not wholly dissolved before being incorporated in the ooze.

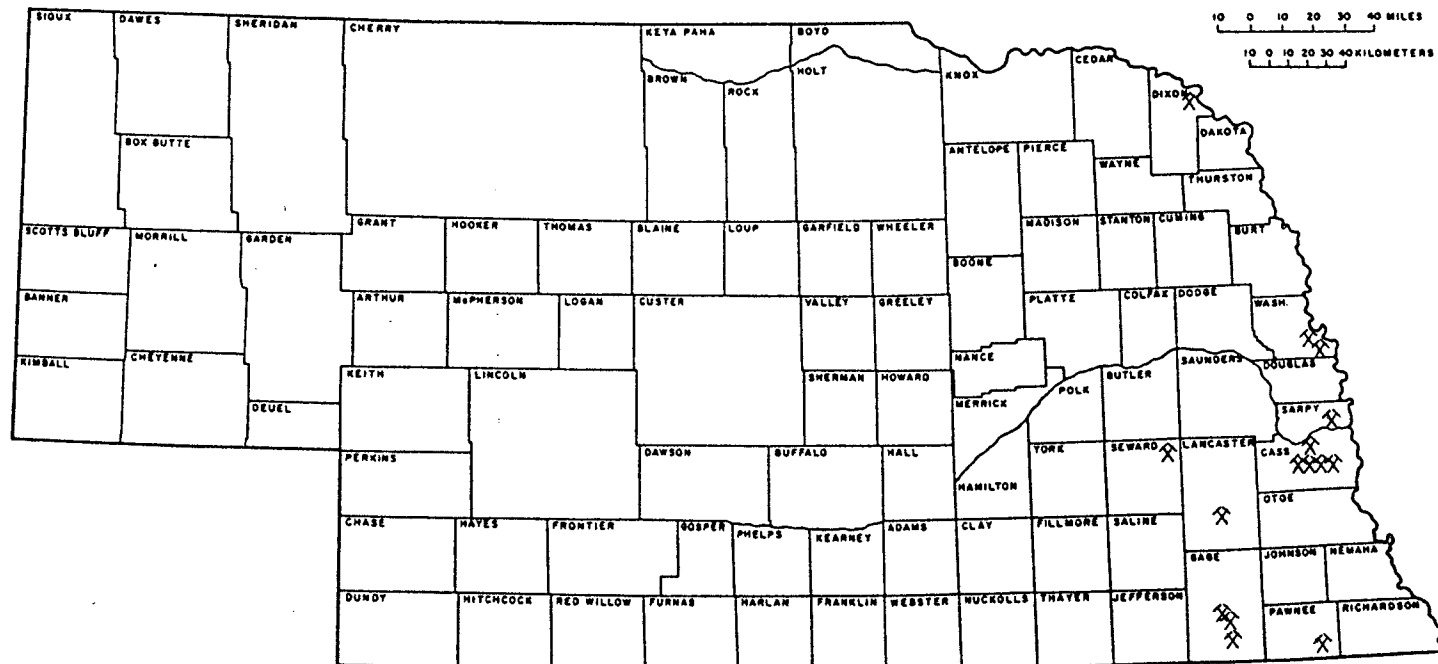
Deposits of limestone crop out mainly in the eastern and southern parts of the State. In the eastern area more than 30 different layers of limestone of Pennsylvanian and Permian age are interlayered with shale or siltstone. Limestone of Cretaceous age is quarried near Garland in Seward County, near Ponca in Dixon County, and near Nelson in Nuckolls County for agricultural lime. Cretaceous age limestones were also used in the past to manufacture cement near Superior in Nuckolls County. Tertiary age deposits of poor quality limestones "mortar beds" are quarried and used for unpaved road surfacing materials in the northern and western part of the State.

Although limestone is present beneath most of Nebraska, it is too deeply buried to be quarried or mined profitably at the present time except in eastern Nebraska. The main quarries in Nebraska are located near Weeping Water in Cass County, near Louisville in Cass and Sarpy counties, and near Ft. Calhoun in Washington County.

Limestone in Nebraska has many uses. Crushed limestone is used in the manufacture of cement, as aggregate in concrete and asphalt, and for road surfacing, railroad ballast, chemicals, lime, fillers, extenders, feed supplements and agricultural lime. Sized limestone blocks are used for riprap, retaining walls and walls of buildings. Currently 17 crushing plants in the State are producing about 4 to 5 million short tons of crushed stone per year. The economic value of the crushed stone is about \$20,000,000 per year.

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LOCATION MAP OF ACTIVE LIMESTONE QUARRIES IN NEBRASKA

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