SURFICIAL GEOLOGY OF COLUMBIA QUADRANGLE

MONROE AND ST. CLAIR COUNTIES, ILLINOIS

David A. Grimley
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For more information contact:

Illinois Geologic Quadrangle Map
615 East Peabody Drive
Forreston, IL 61030
815-396-9571
www.illinoisgeology.org

IGS Columbia-5G
Sheet 1 of 2

T. 1 N., R. 10 W.

R. 10 W., T. 1 S.

Cahokia Formation sand (up to 20 feet thick)

Cahokia Formation

Equality Formation

Mississippi \nRiver valley

Palmer Creeks

Carr and Palmer Chimneys

Palmer Creek

Carr Creek

George Creek

Pere Marquette River

Owensville

Petersburg

Cahokia

Monroe

St. Clair

Coles

Monsanto

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Introduction

The Columbia Quadrangle, located in southeastern Illinois, covers about 13 miles east of the city of Columbia and contains several distinct geologic features. One of the most prominent features is the presence of the Cahokia Formation, which is a prominent sedimentary unit that is widespread throughout the area. The Cahokia Formation is a significant feature in the study of the geology of the area, and it is important to understand its characteristics and distribution in order to fully appreciate the geological history of the region.

Methods

The methods used in the study of the Cahokia Formation include traditional geological mapping and modern techniques such as remote sensing and geophysical surveys. These methods have been used to map the distribution of the formation and to identify its various components. The mapping has been conducted using a combination of field observations and aerial photography, supplemented by data from well logs and other geological records. The results of these studies have provided important insights into the geological history of the area and the formation itself.

Quaternary Geology

The Quaternary Geology of the area is characterized by a series of sedimentary deposits that were formed during the last glaciation (Wisconsin Episode). These deposits include till, lacustrine sediments, and waterlain sand, which are important in understanding the history of the region. The Cahokia Formation is a prominent feature in this depositional sequence, and it is important to study its characteristics and distribution in order to fully appreciate the geological history of the area.

Environmental Hazards

Environmental hazards are another important consideration in the study of the Cahokia Formation. These hazards include the potential for sinkholes and other geologic features that can pose risks to human activity and infrastructure. The mapping of the Cahokia Formation and other geological features in the region is important in assessing these hazards and developing strategies to mitigate their effects.

Material Resources

Material resources are another important consideration in the study of the Cahokia Formation. These resources include minerals and other materials that are important for human activity and infrastructure. The mapping of the Cahokia Formation and other geological features in the region is important in assessing the availability of these resources and developing strategies to mitigate their effects.

Acknowledgments

Acknowledgments are important in recognizing the contributions of individuals and organizations that have supported the study of the Cahokia Formation. These contributions include funding, equipment, and other resources that have been essential in conducting the research.

References

References are important in providing a comprehensive bibliography of the literature that has been used in the study of the Cahokia Formation. These references include books, articles, and other sources that have provided important insights into the geological history of the area.

Cross Sections

Cross sections are important in providing a visual representation of the geological features that have been mapped in the study of the Cahokia Formation. These sections include borehole data and other geological records that have been used to create a detailed picture of the subsurface geology of the area.

Vertical exaggeration: 20×