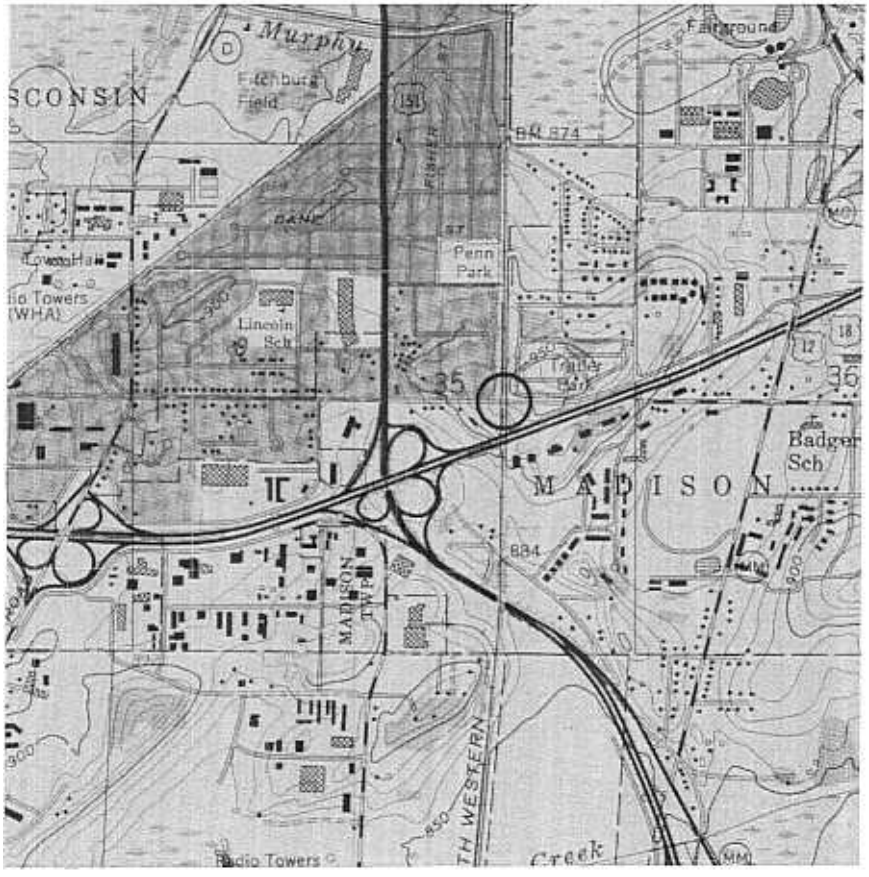
Outcrop 2

Title: Madison - Penn Park

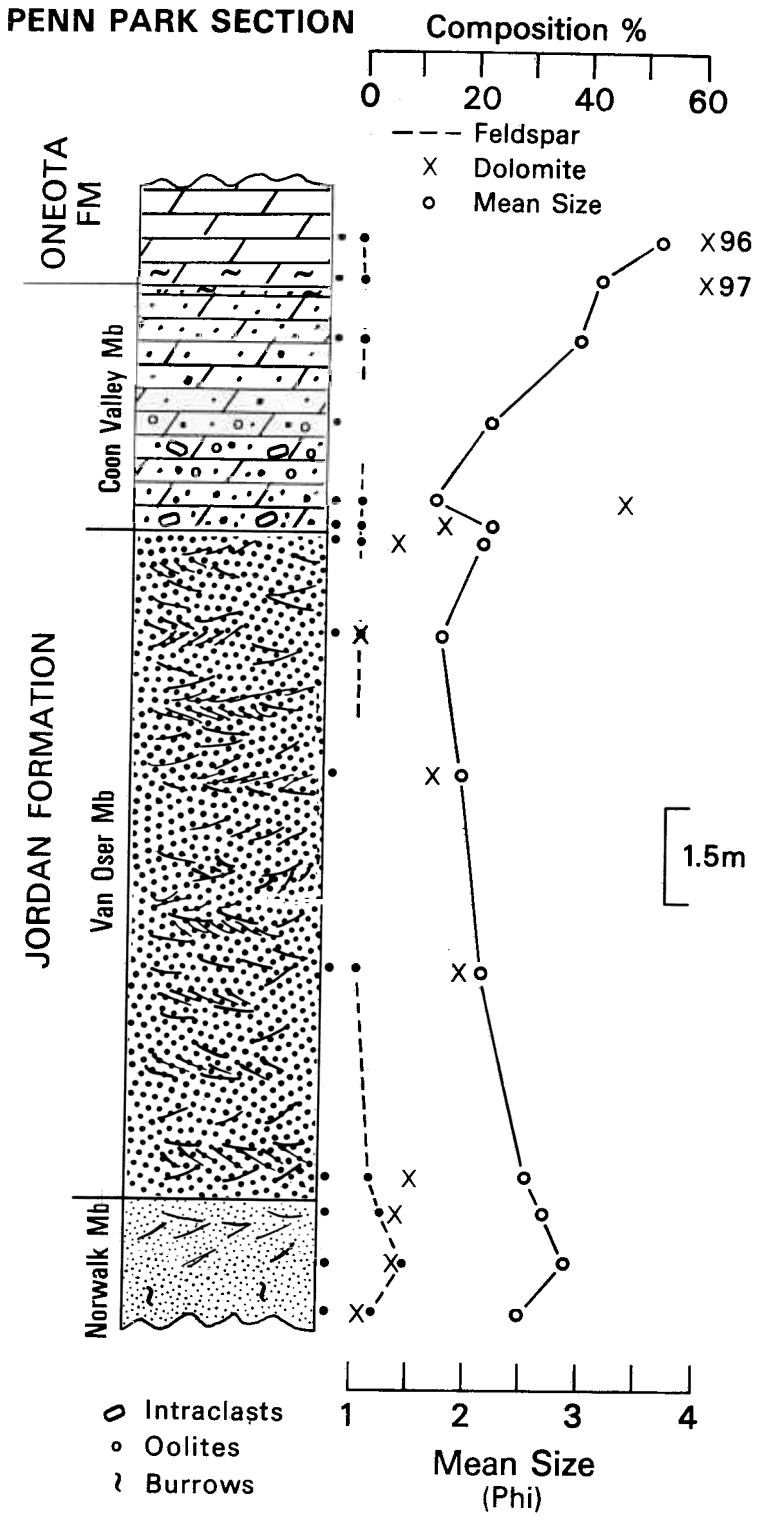
Location: Chicago and Northwestern Riilroad Cut at Badger Road east and south of Penn Park in the SE corner, SW¼, NE¼, Sec. 35, T. 7N., R. 9E., Dane County. (Madison West 7.5-minute topographic quadrangle, 1974).

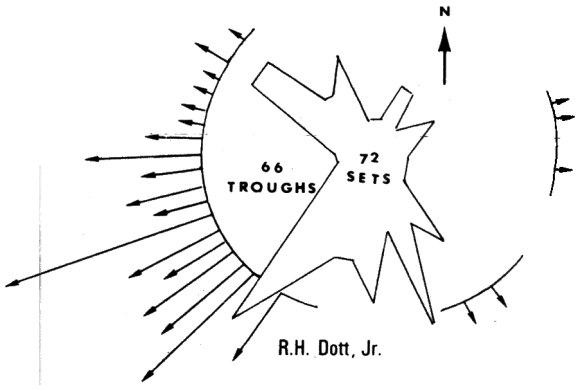


Author: I. E. Odom

Description: This outcrop of the Jordan Formation is very significant because no sandstones characteristic of the Sunset Point Member are present, yet the outcrop is just 5.5 km (3.4 miles) southeast of the Sunset Point type section. The lower two meters of fine-grained, slightly feldspathic sandstone is assigned to the Norwalk Member because its texture and mineralogy are typical of beds that are frequently transitional between the Norwalk and Van Oser Members (Outcrop 3). According to Twenhofel, Raasch, and Thwaites (1935), the Lodi Siltstone was once exposed in this cut.

Note that the stratigraphic interval where the Sunset Point Sandstone might be expected to occur is entirely fine to medium-grained, highly cross-stratified sandstone (Van Oser) which coarsens upward. Although it contains dispersed


PENN PARK SECTION
Composition %
0
20
40
60
Feldspar
Dolomite
Mean Size
ONEOTA FM
Coon Valley Mb
JORDAN FORMATION
Van Oser Mb
Norwalk Mb
X96
X97
1.5m
Intraclasts
Oolites
Burrows
1
2
3
4
Mean Size
(Phi)



Paleocurrent directional data for the Van Oser Member.

dolomite crystals, the overall mineralogy, texture and structure of this sandstone unit (10.5 m) are very similar to the Van Oser Member exposed elsewhere in the Madison area.

The Van Oser Member is here overlain by "oolitic", sandy dolostones and dolomitic sandstones (Coon Valley Member) very similar to those overlying the Sunset Point at its type section, and the lower beds of the Oneota Dolostone supersede the Coon Valley. More accessible outcrops of the upper part of the Coon Valley Member and of the lower beds (algae) of Oneota Dolomite are present along Badger Road south of the bridge.

Interpretations: The Van Oser Sandstone at this locality is interpreted to be part of the East Madison Bar complex (Fig. 26), and the local lagoon in which the Sunset Point Sandstone was simultaneously being deposited was located to the northeast. The dominant current directions were to the south and west (Dott, 1977) in agreement with the proposed model that the Sunset Point lagoon was surrounded by Van Oser bars which egressed from the ends of the Baraboo Islands (Fig. 22).

The lithic characteristics of The Coon Valley Member again suggest that it was deposited in a dominantly subtidal carbonate shelf lithotope influenced by strong wave and current activities. The Oneota Dolostone contains the same types of algal structures as at Outcrop 1, which Adams (this guidebook) interprets to be indicative of a supratidal environment.