

L3-84-SP D17-1

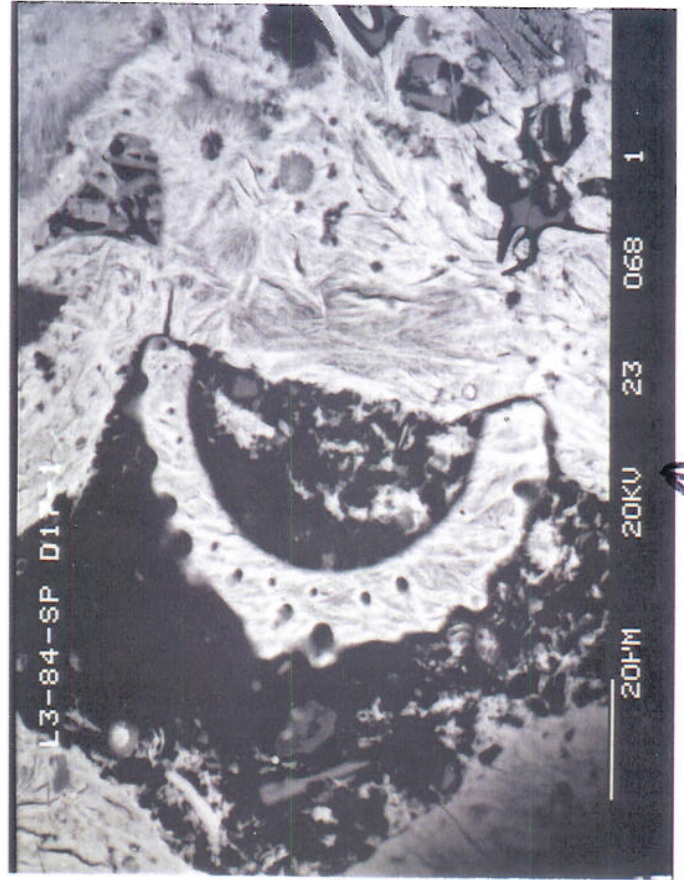
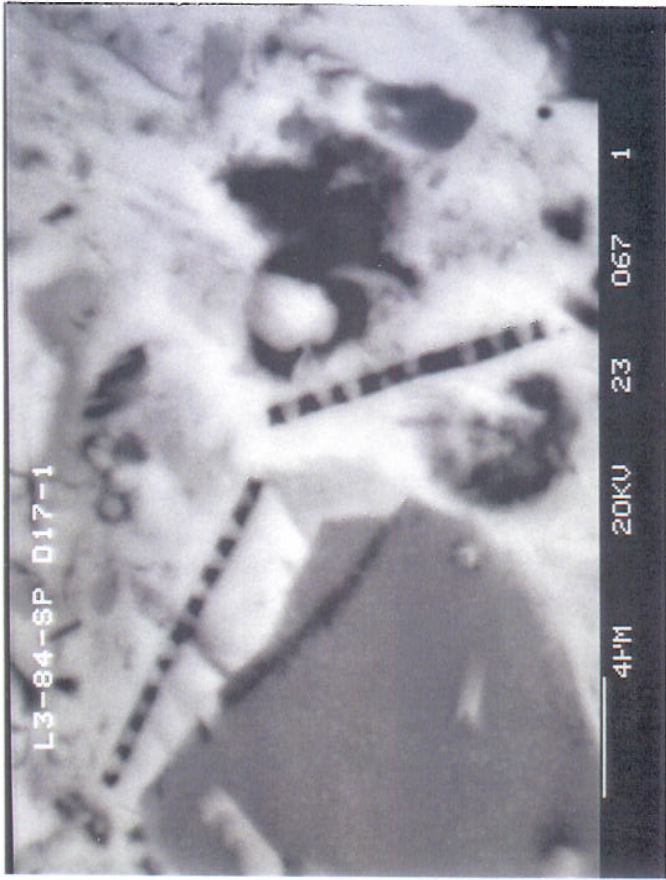


Photo 3

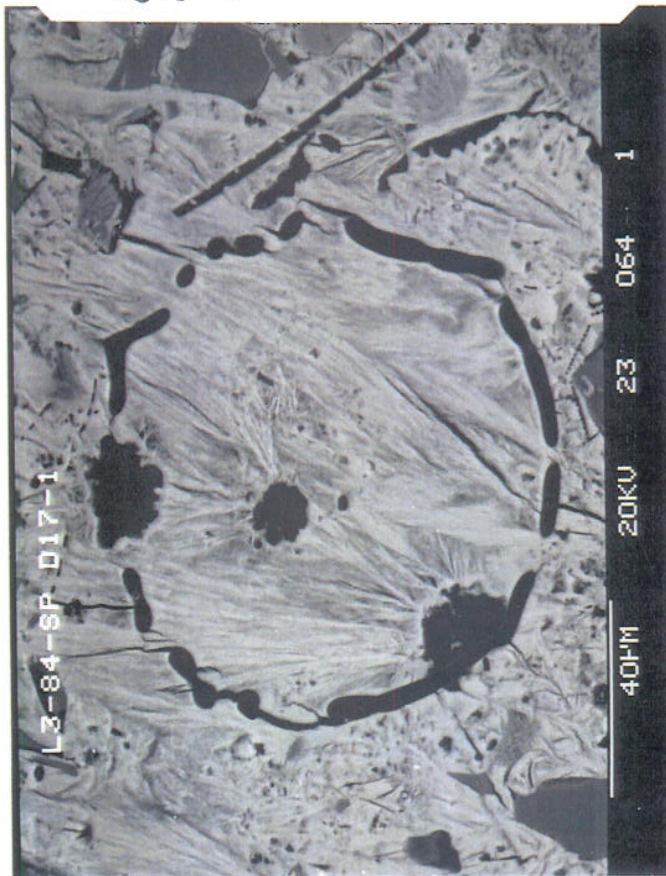


Photo 4

Small grains = Si, Al, etc. Volc.

Si/Al/CA MnO₂ Mn²⁺ Mn³⁺

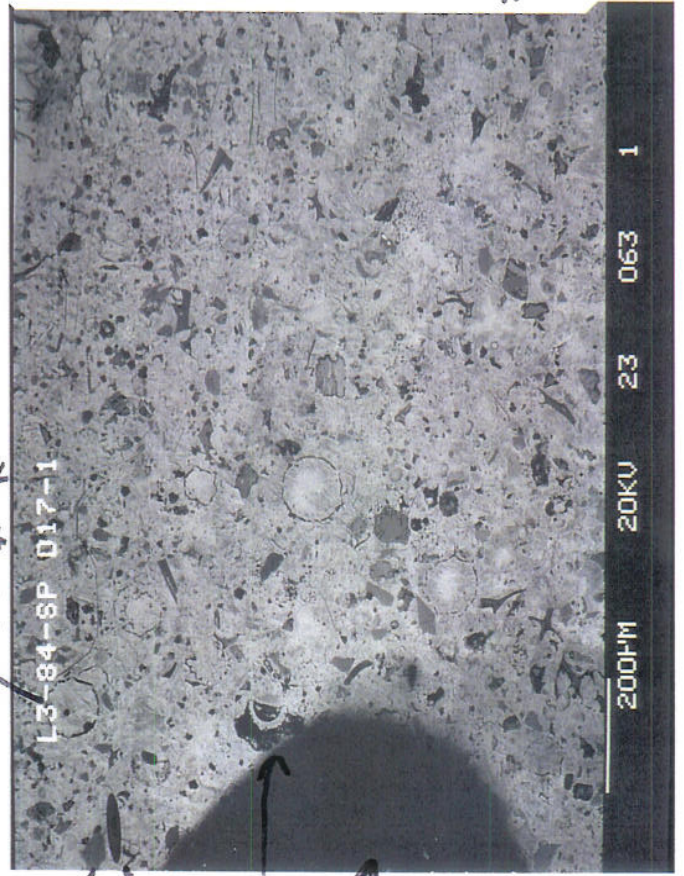


Photo 2

Photo 1

MnO₂
Si

BG → Fe

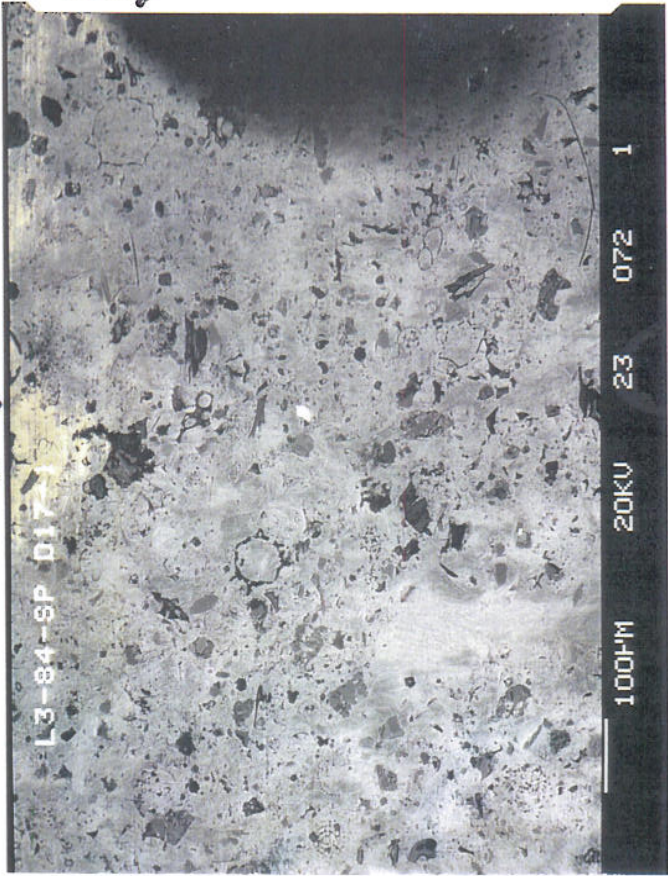


Photo 6

Photo 7

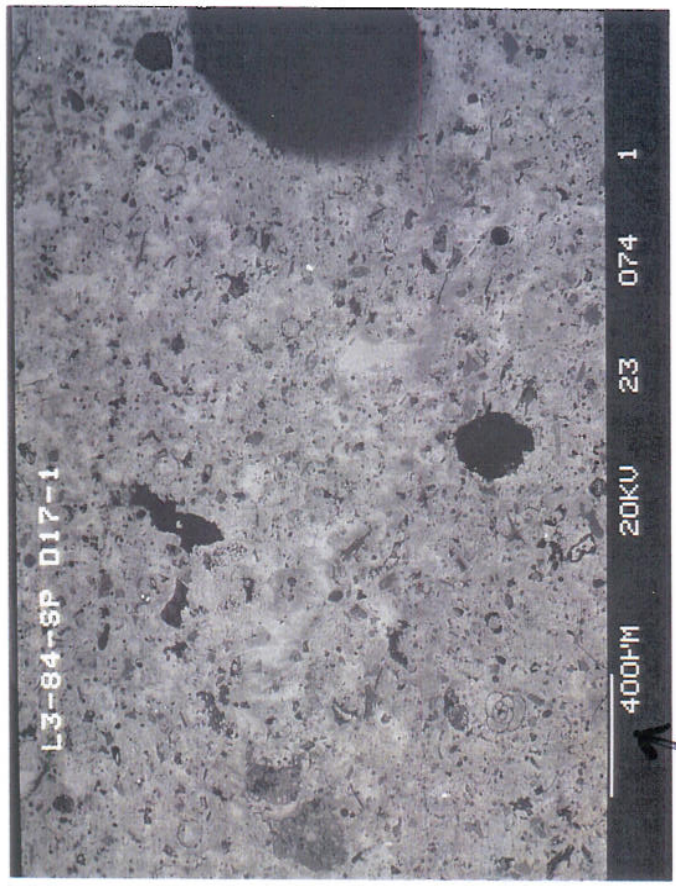


Fig. 8

↓ Lite Mn

↓ Black Mn

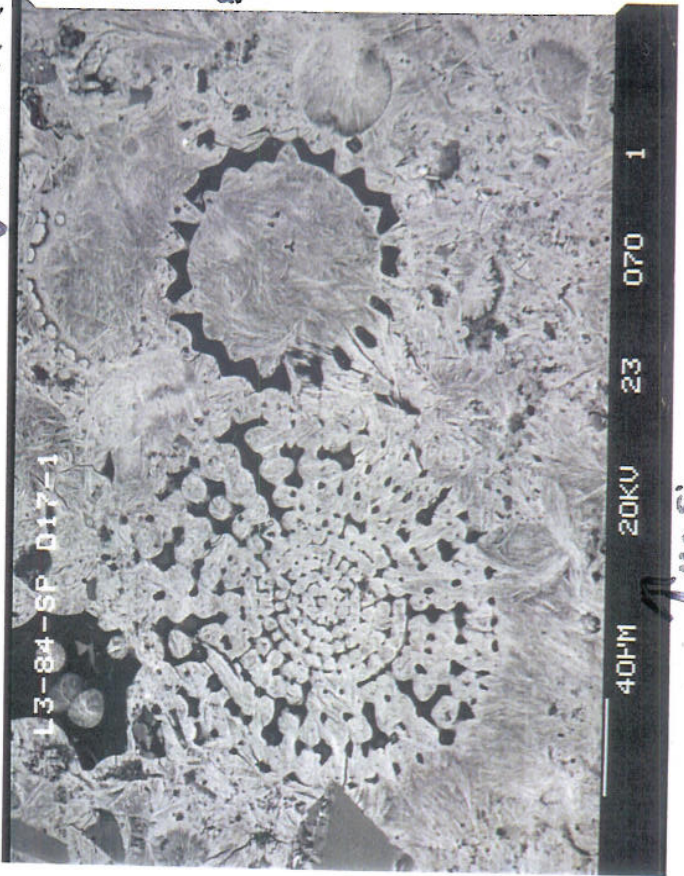


Photo 5

Photo 8

Si Mn Si



↑ Mn Si

Si, Fe, Ca, Mn, ml - Si, Al, Ca

Fig. 10

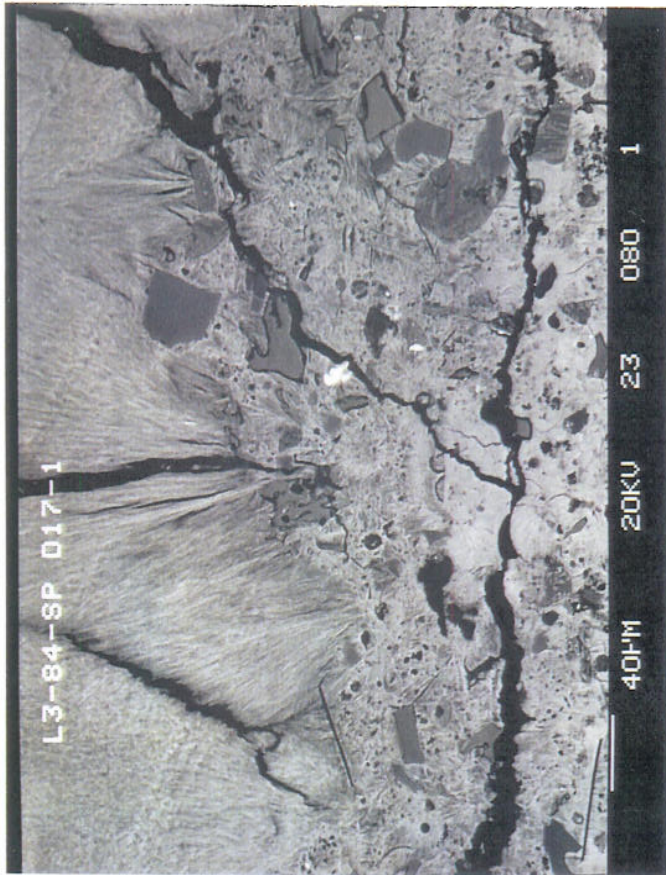


Photo 9

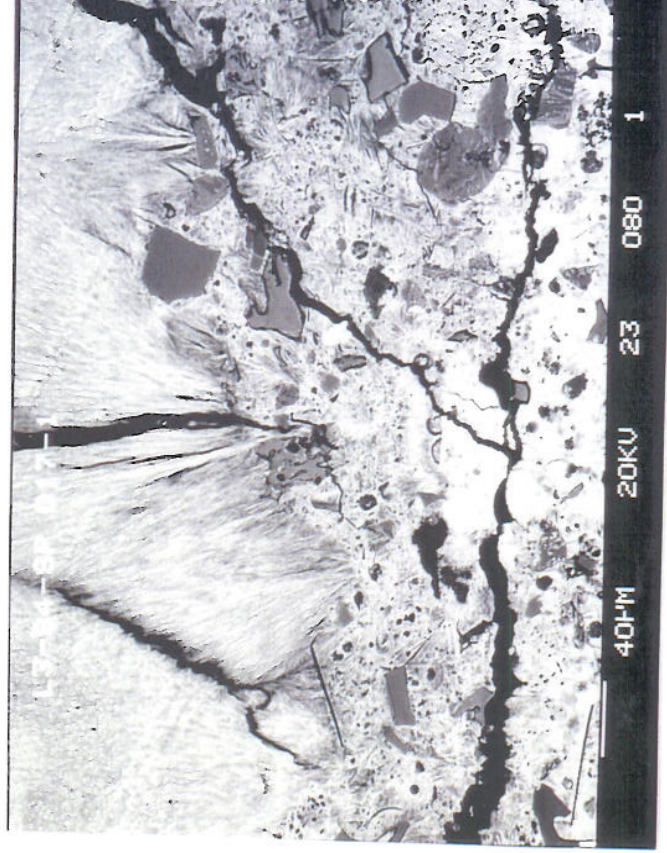
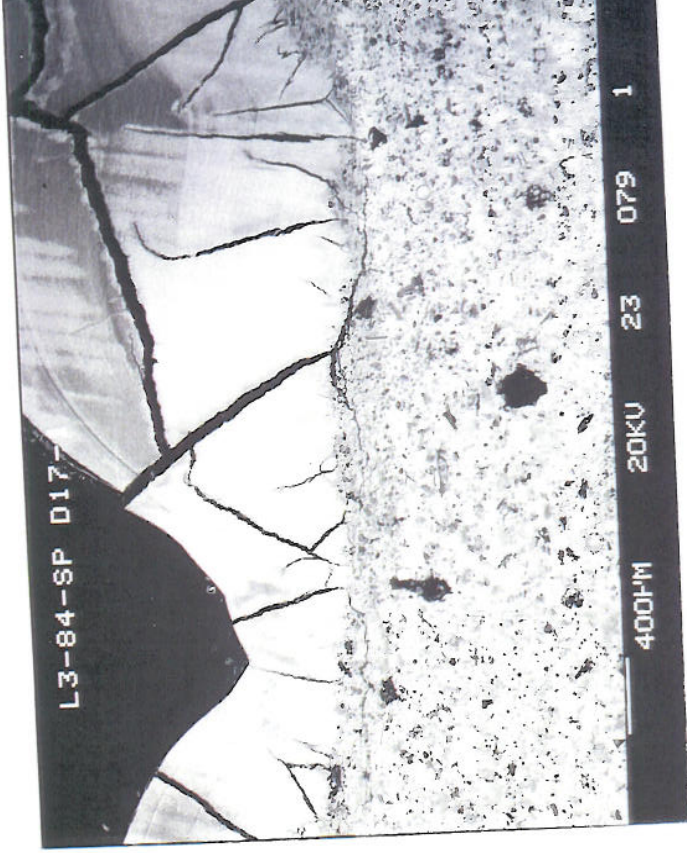
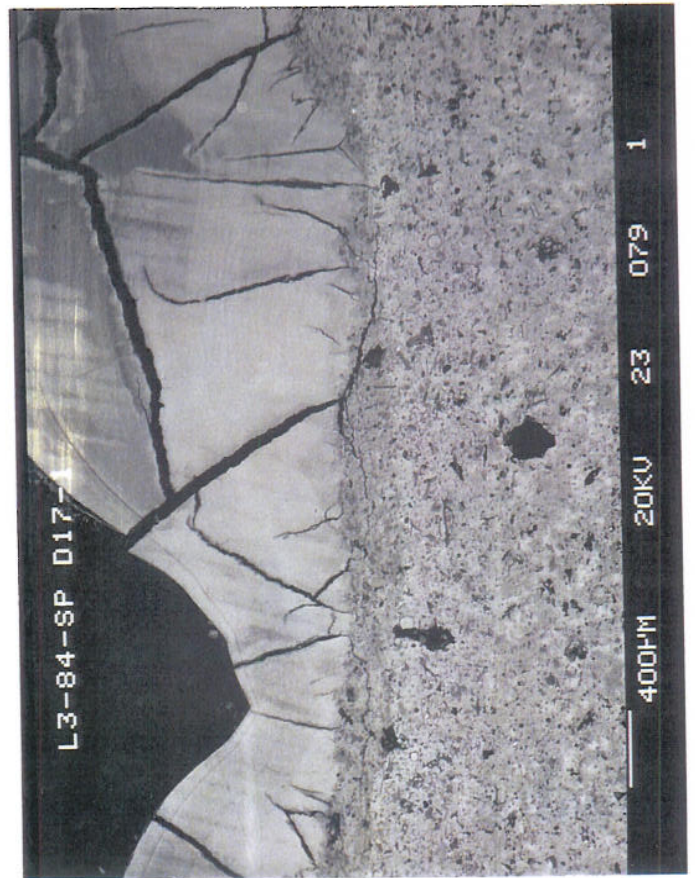


Photo 3: Close-up of bacteria in Photo 2; ~~the glass~~
Vole. glass shards w/ vesicles

PG-1 - Fe - in Vole.

Photo 4: Vole. Rx Frog w/ Mn lined vesicle? or a
replaced microfossil -

Photo 5 black Mn, some Si; Mn replaced diatoms
Light Mn, small Ca++

Photo 6 - General ^{view} of second ink mark (Rt. one)
BG is Fe

Photo 7 - More General View -

Look at Foram in lower left -
Chem. Black Forams: Mn, Ca, Si
Chem. Lite Forams, Mn, Ca, little K, Mg

Photo 8 - Close-up of Foram -

chem. of Grain

BG ~~is~~ ^{left} wall - Si, K, Fe, ^{Mg} Al-Ting -

Dark Grain ~~is~~ left wall = Si

BG-1 - Fe, Ti, Mn, Ca

2 - Fe, Ti,

Photo 9 - Upper dense Layer Mn - Ca, Si, Mg

contact w/ Mn ss

v. upper parts more K -

Photo 10 - Close-up of Contact on #9

L3-84-SP; D17-1 - hydrothermal Mn - Polished Section -

Photo 1: General view - Cemented Bioclastic SS -

grains: sponge spicules (Si), , outer Rims dissolved
+ partly replaced w/ Mn -

Photo 2:

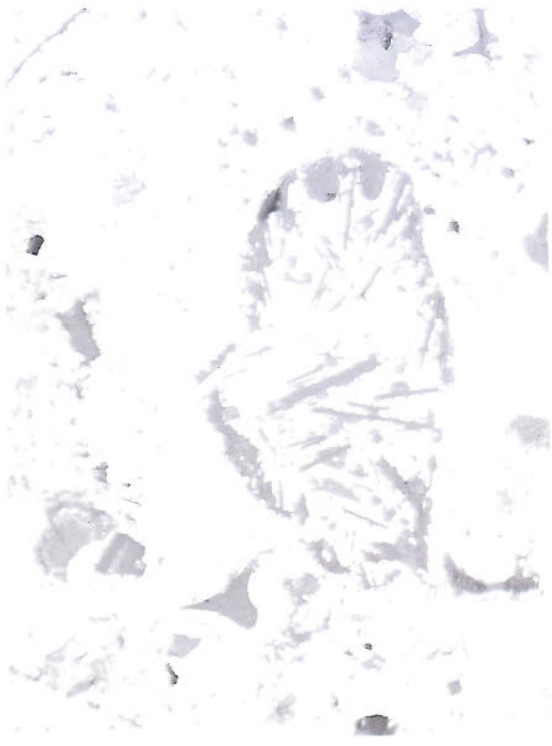


photo 4

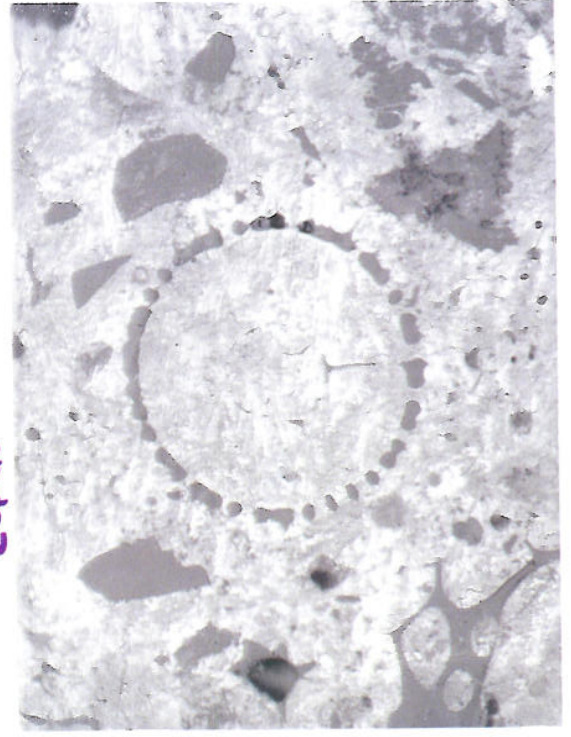


photo 5

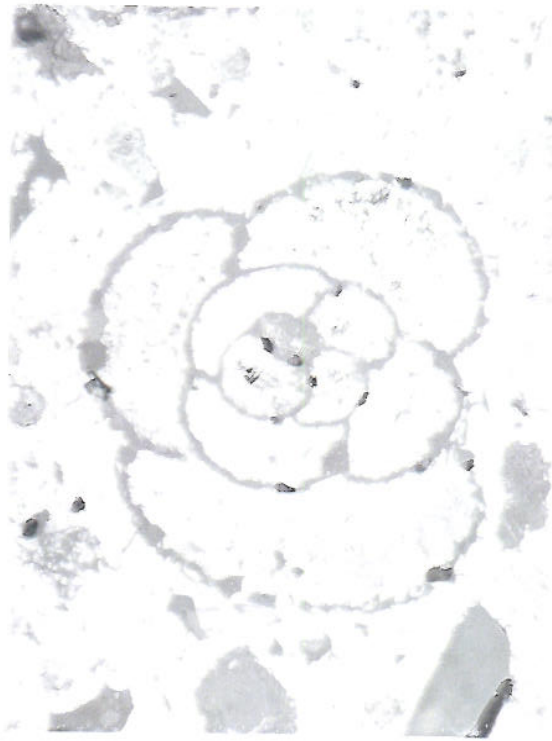
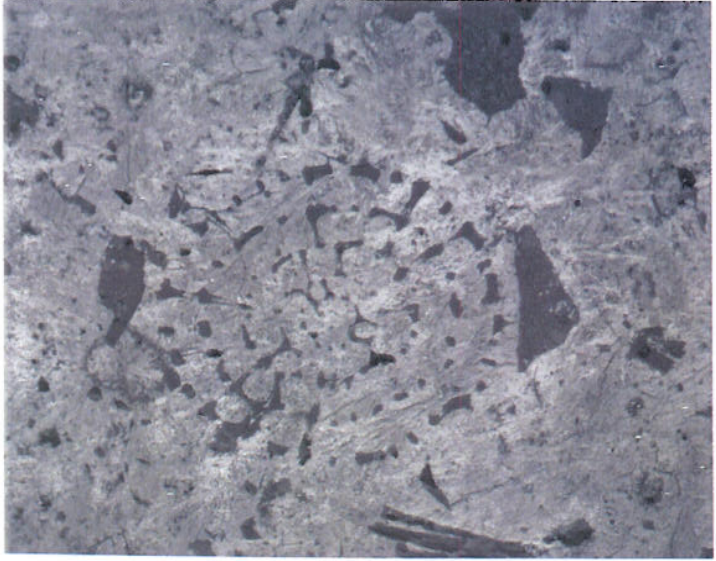
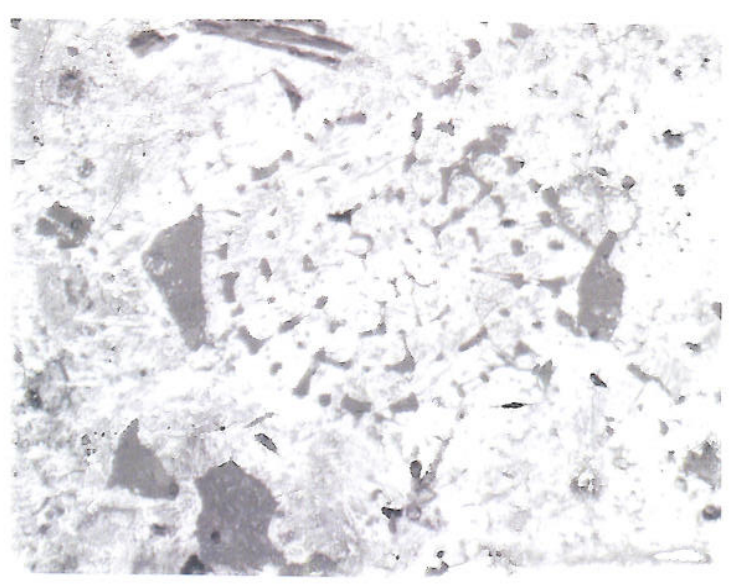
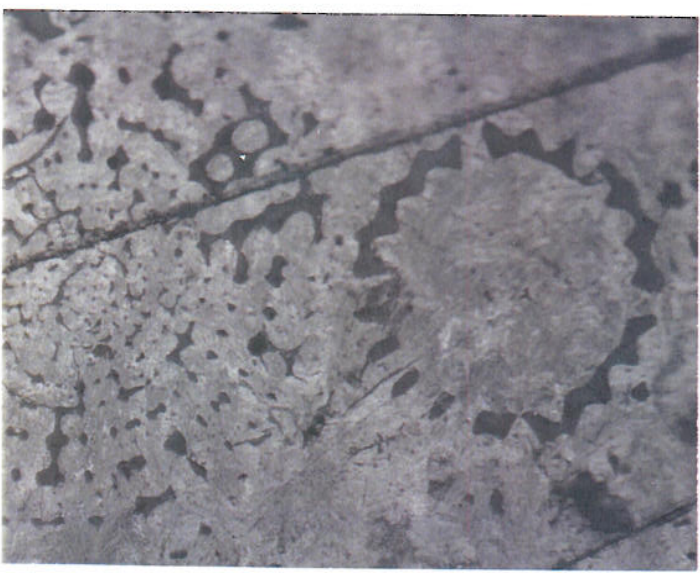


photo 2



Ph. 1



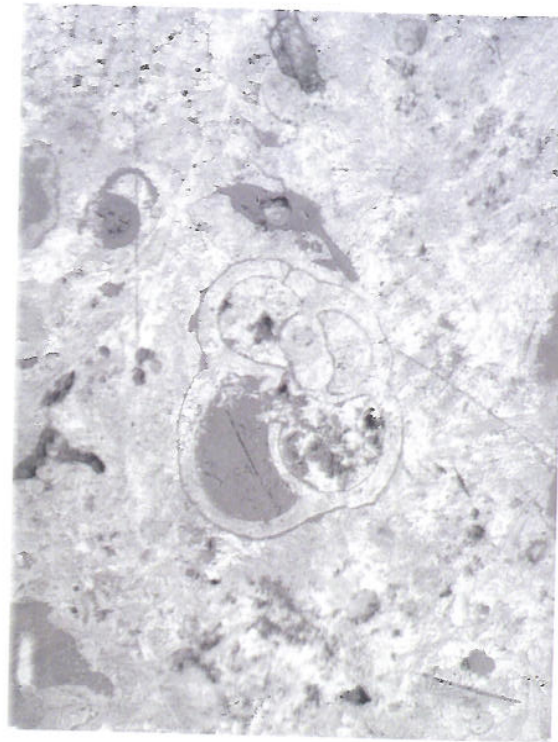


Photo 5

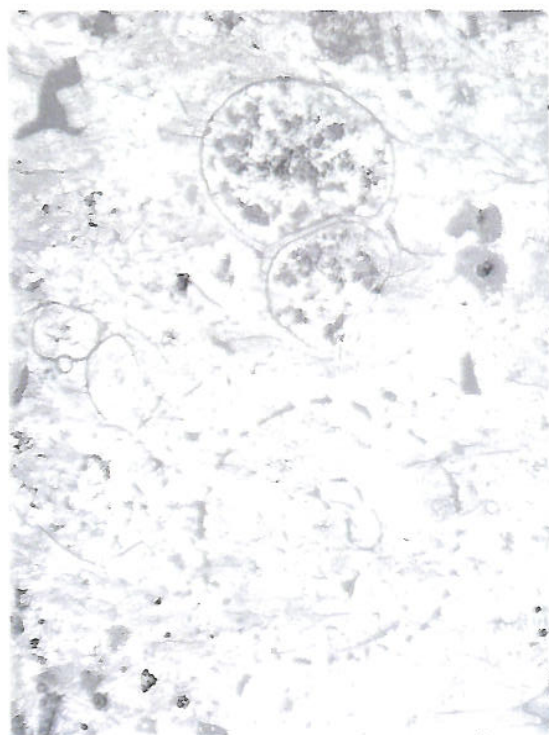
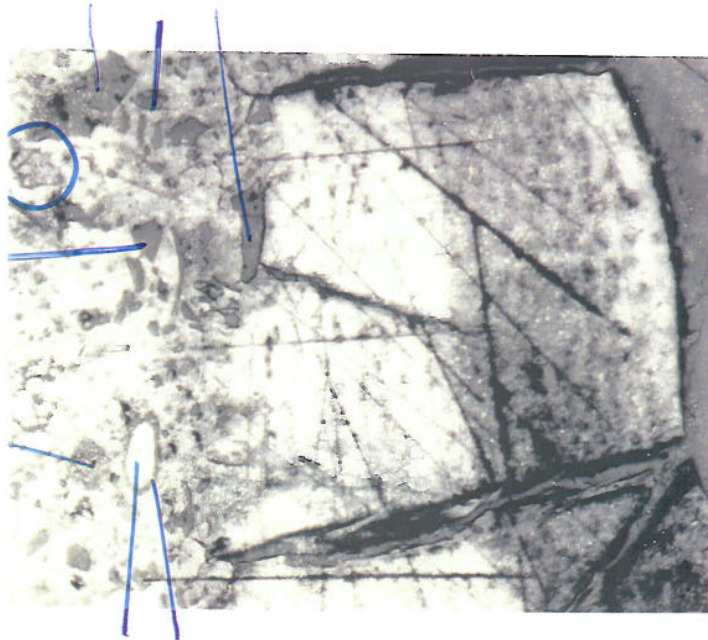
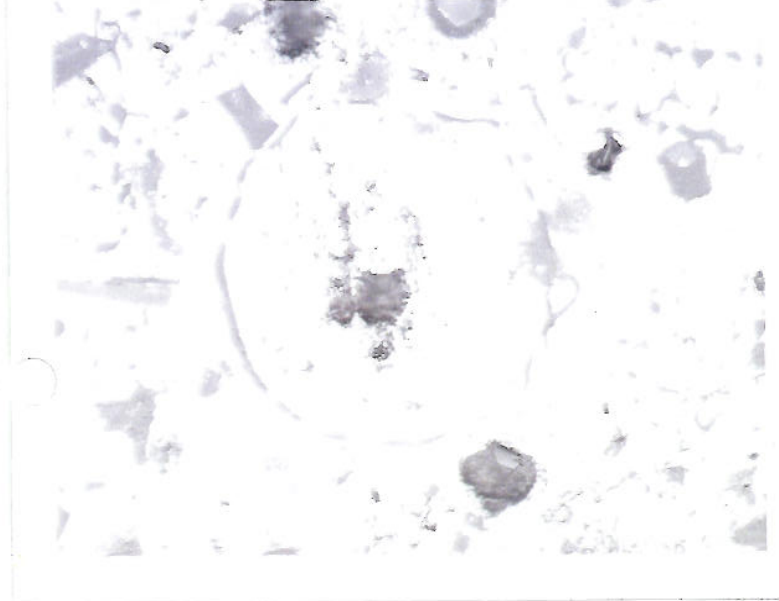


Photo 6



Photo 7



10x10

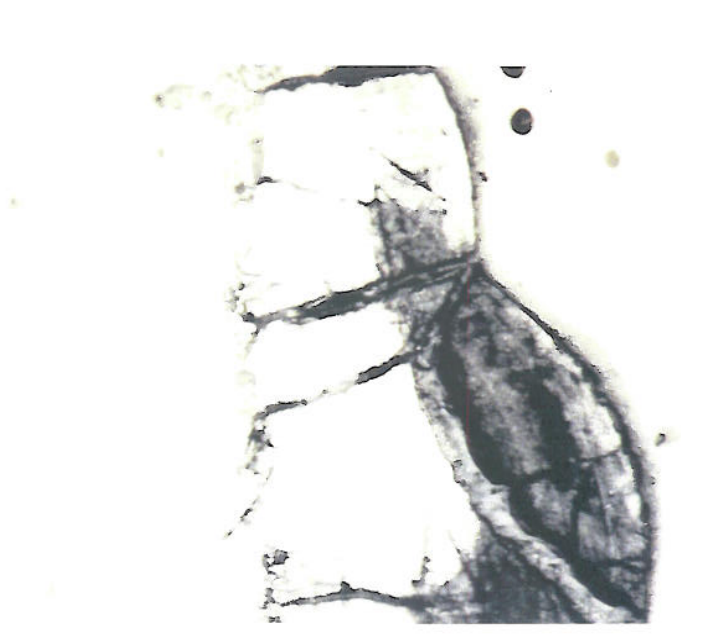
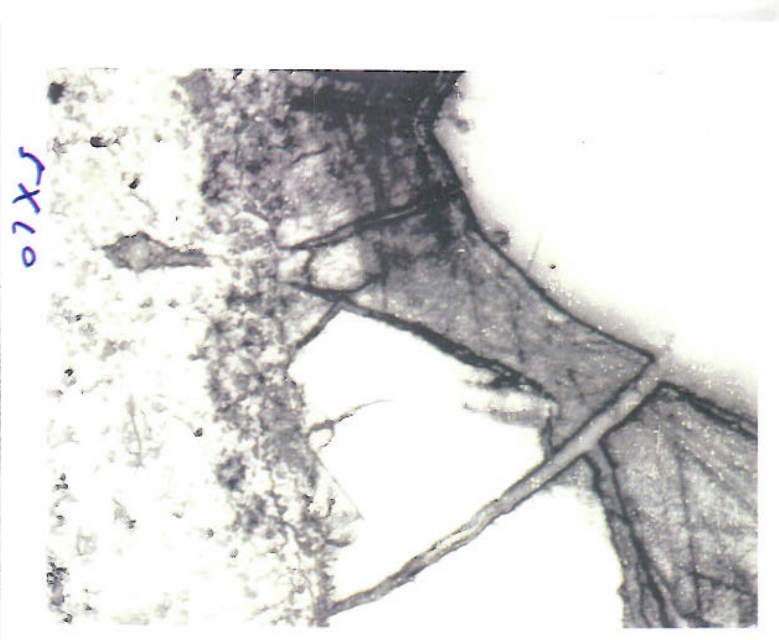
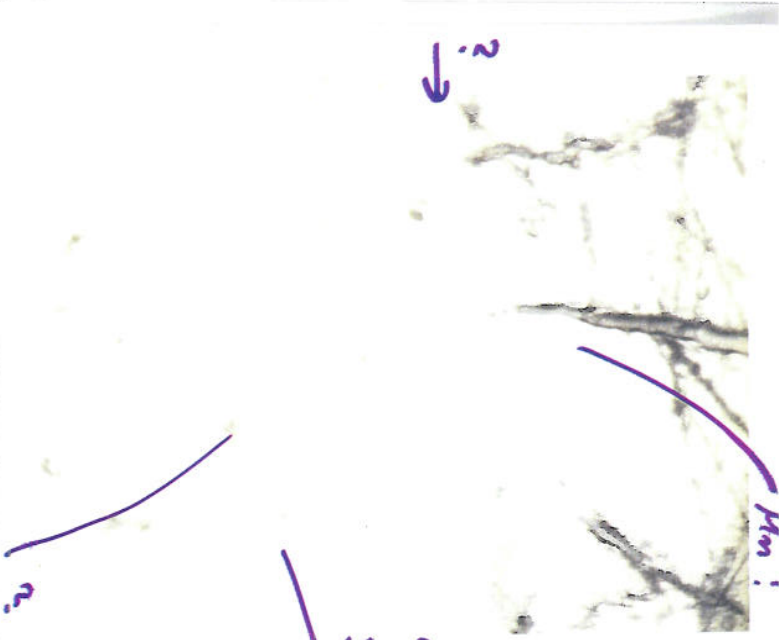
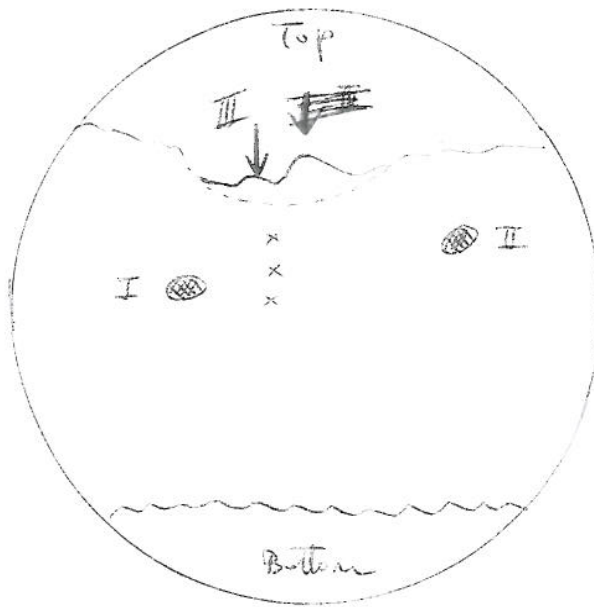
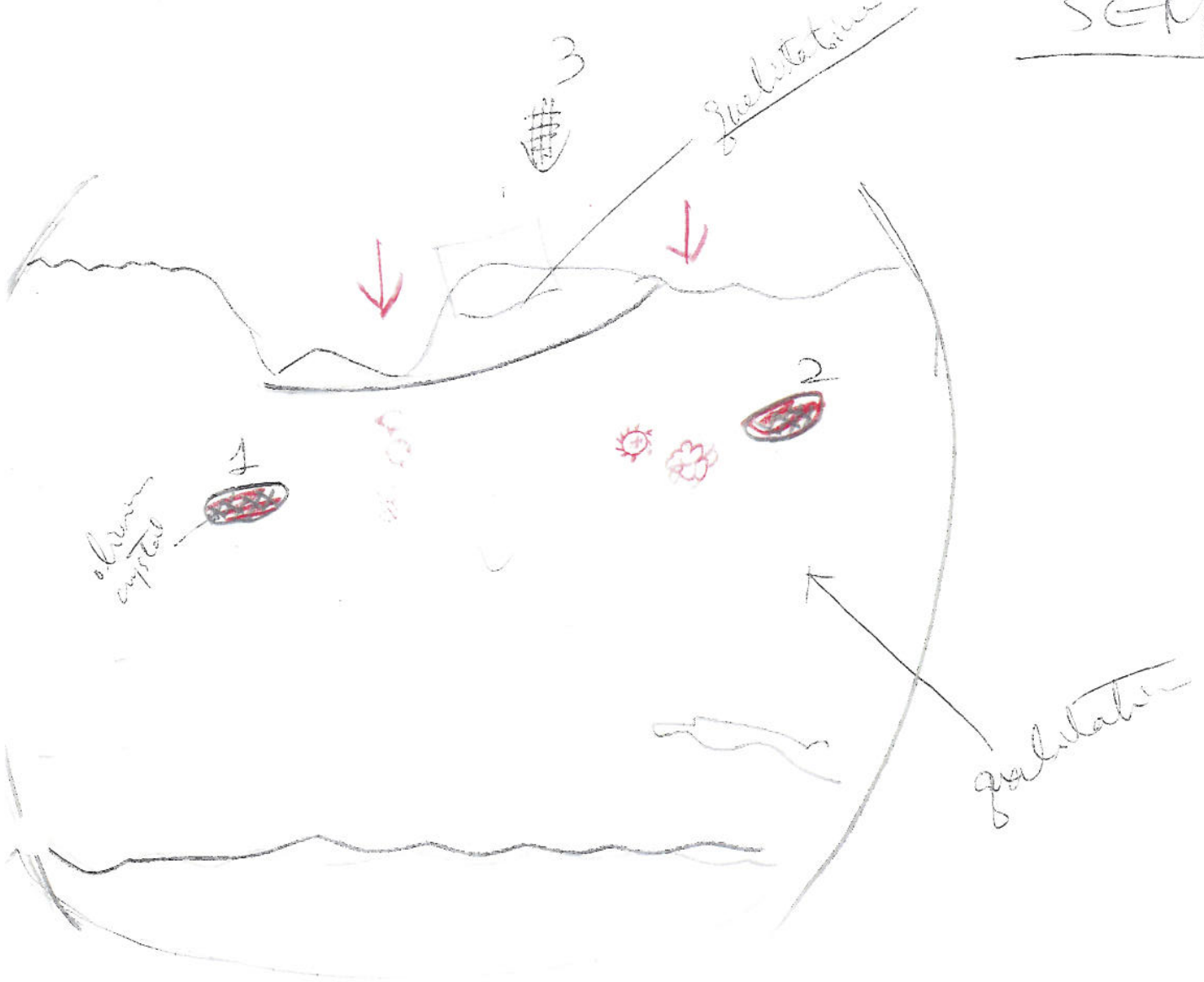


Photo 8





- I : chlorine crystal (?)
 x organisms (representatives)
 Mn Xstals chem.
 organisms chem.
 general photo (Mn + organisms + Mn crystals in organisms inner part)
- II : organisms. (photo 2, photo 3)
 Mn organisation at inner part of organisms.
- III : Massive Mn,
 - chem
 - boundary area
 - general organisation
 - Fe-Mn layer on surface (?)



- ① olivine grain
organisms (microphotos)
boundary between 2 sequences
- ② organisms (micro-photos)
- ③ homogeneous Mn layer.
externally (surface of Mn layer)
probably Fe-Mn



1.



- I : Fe-Mn
- II : Mn
- III : Mn
- IV : boundary
- V : Mn
- VI : organisms
: grains
: etc

2.