

pine and mixed pine woods remaining the only meaningful forest communities. Such forest structure survived till modern time.

After AD 1000 the last distinct rise of water level is recorded by the expansion of pelagial Cladocera and, further on, peat growth at the shores of the northern bay (Demske 1995). This probably intensified the input of clastic material to the lake, noted after AD 1100. Development of human economy in historical times was also responsible for the increases of iron (primitive smelting factories), and phosphorus (eutrophication stimulated by agriculture) in lake sediments. The distinct lake eutrophication and restored formation of regular laminae in the 19th and 20th centuries, followed by the lowering of trophy after the 2nd World War, are strictly connected with the history of settlement in the area as known from archival sources. These questions are discussed in detail in Chapter 9.2.

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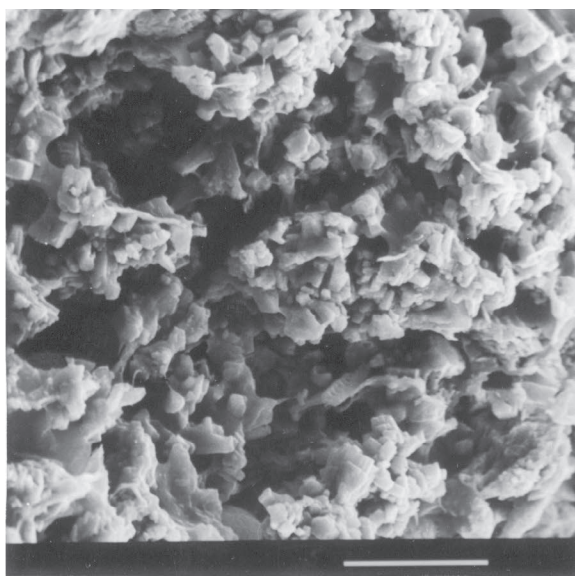
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Plates

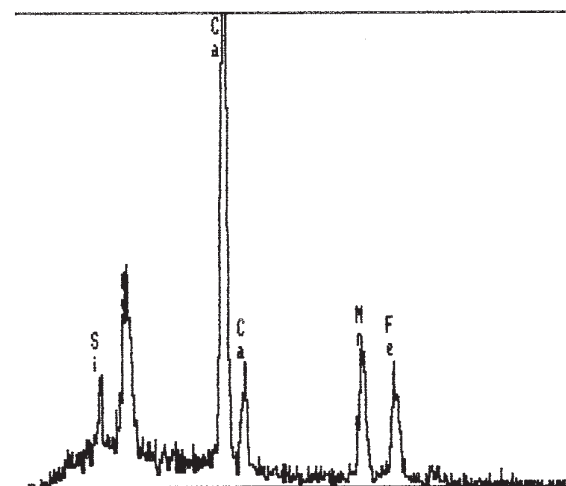
Plate 8.1.

1. SEM photograph of black lamina with amorphous Fe and Mn hydroxides and very fine-grained carbonates. Bar scale = 10 μm .
2. EDS spectrum of Fe and Mn hydroxides and carbonates visible on the photo 1
3. SEM photograph of the reddish-brown lamina containing flaky iron hydroxides and very fine-grained carbonates. Bar scale = 10 μm .
4. EDS spectrum of iron hydroxides visible on the photo 3.
5. SEM photograph of coarse grained calcite deposited in the white lamina. Bar scale = 10 μm .
6. EDS spectrum of material visible on the photo 5. Note the lack of Mn and Fe peaks, showing carbonates as a pure calcite.

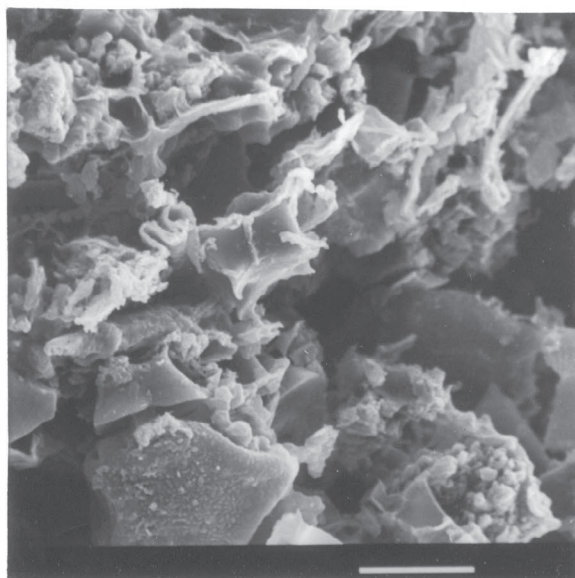


1

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Real: 107s 7% Dead

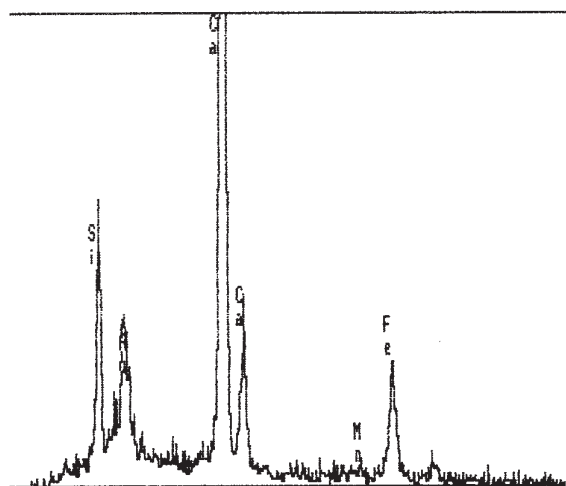


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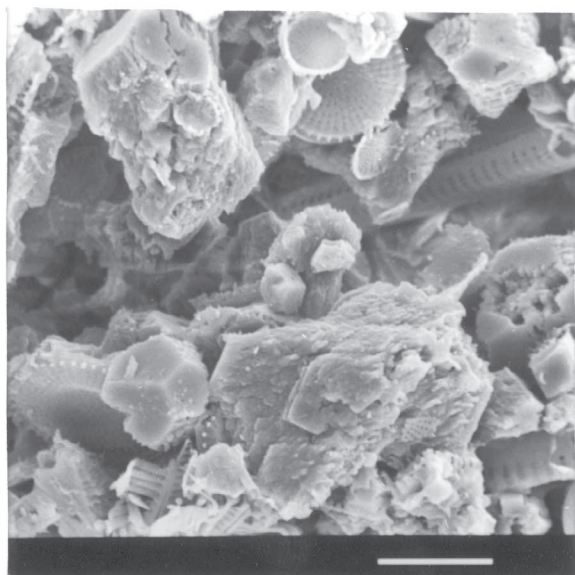


3

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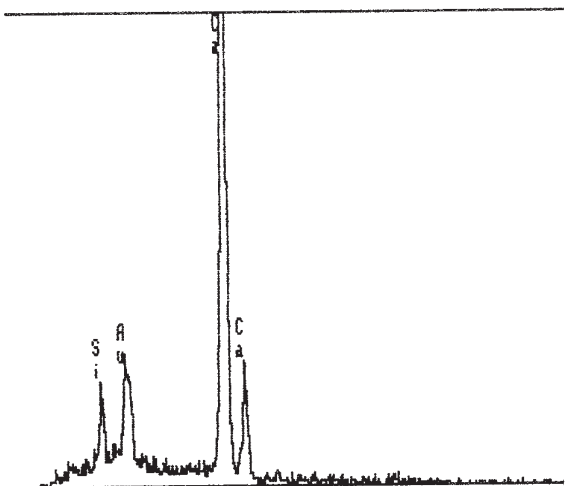


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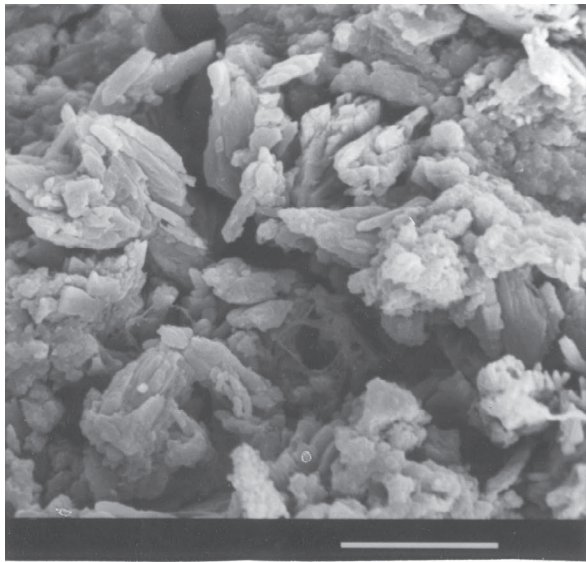
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Real: 107s 7% Dead



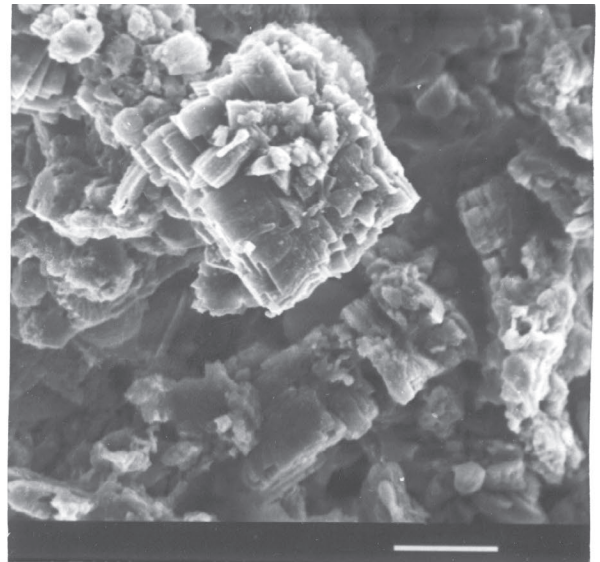
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Plate 8.2.

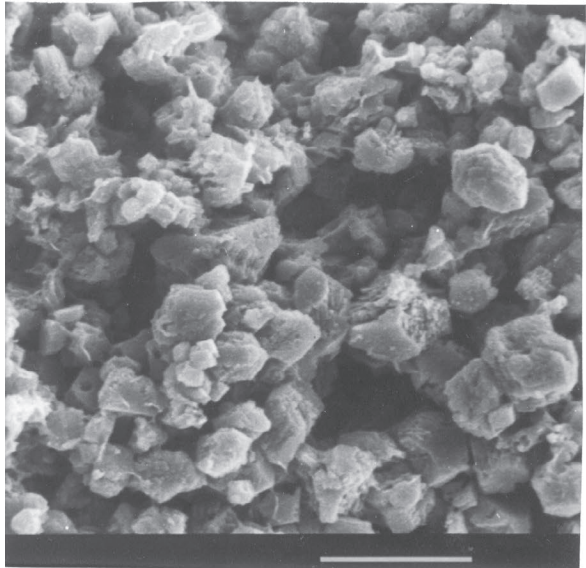
1. SEM photograph of radial crystals, probably vivianite, growing between carbonate laminae enriched in Fe (EDS relative peak 6.2 kev). Bar scale = 10 μm .
2. SEM photograph of vivianite twin (Peaks of Fe and P, respectively visible on the EDS spectrum). Bar scale 10 μm .
3. SEM photograph of the white lamina consisting of fine-grained carbonates. Bar scale = 10 μm .
4. SEM photograph of the white lamina built of coarse and euhedral calcite. Note the difference between the structure of the lamina visible on the Photo 3. Both of them reveal seasonal events of the deposition processes. Bar scale = 10 μm .
5. SEM photograph of the pinholes among the nucleation centres on calcite crystal faces. Bar scale = 1 μm .
6. SEM photograph of the calcitic faces of polyhedron {1010} and rombohedron {1011} or {0112}. Bar scale = 10 μm .



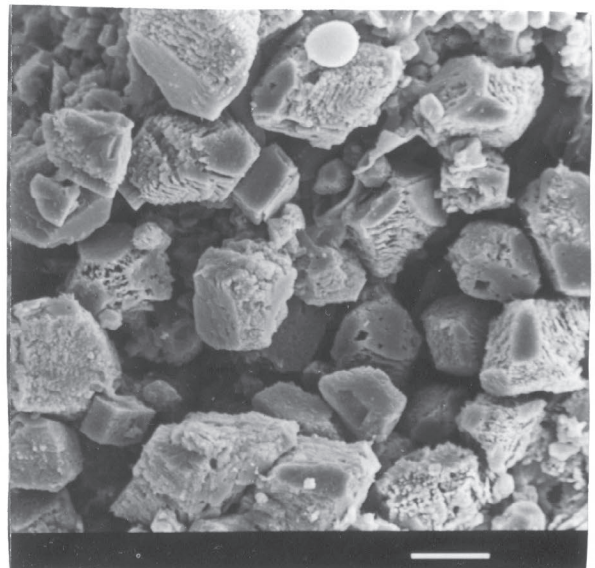
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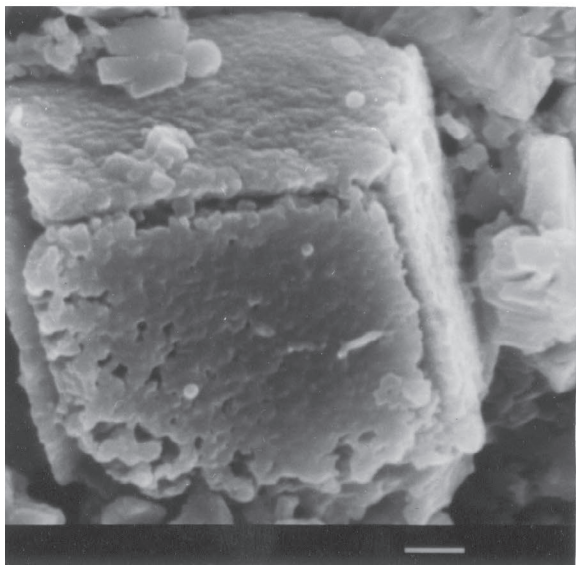
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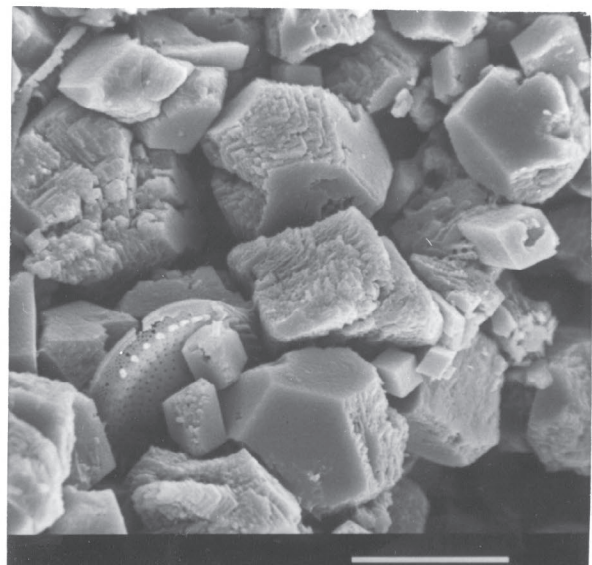
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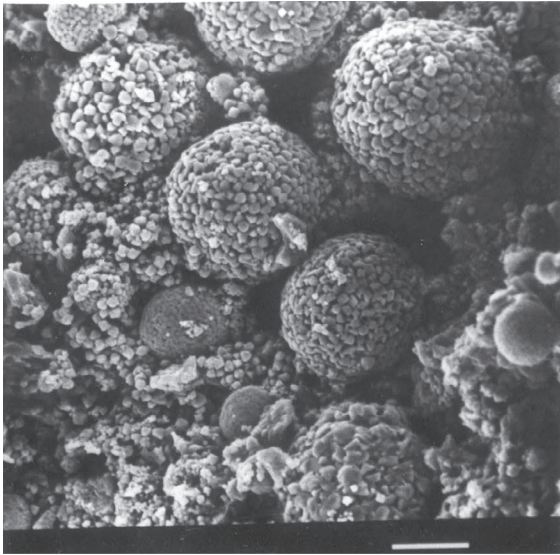
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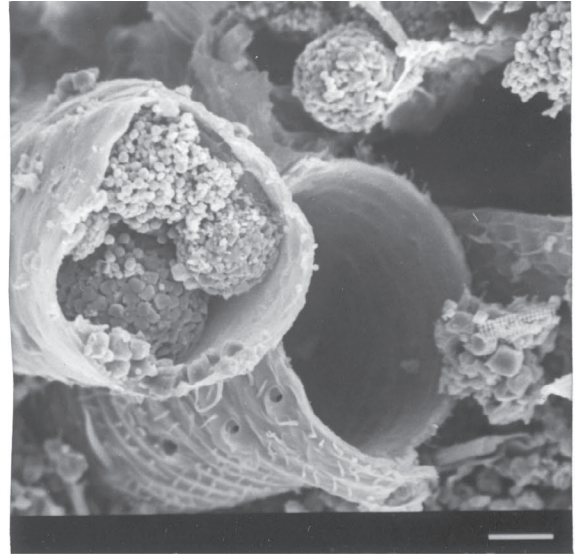
6

Plate 8.3.

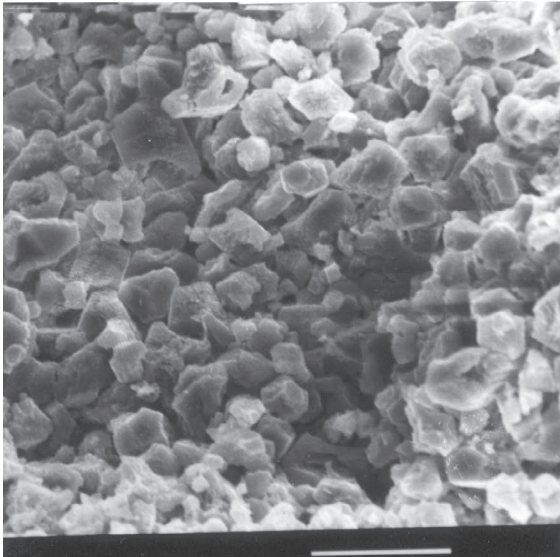
1. SEM photograph of framboidal pyrite occurring within lamina containing Fe phosphates.
 2. SEM photograph of framboidal pyrite within organic remains.
 3. SEM photograph of the white lamina consisting of euhedral and fine-grained carbonates.
 4. SEM photograph of the pale grey lamina overlying carbonate lamina shown on Photo 3. Note the increasing content of diatom frustules.
 5. SEM photograph of the white lamina consisting of diatom frustules revealing their seasonal blooms.
 6. SEM photograph of the diatom frustules, carbonates, and phosphates sunk in post-diagenetical gypsum crystal.
- All bar scales = 10 μm .



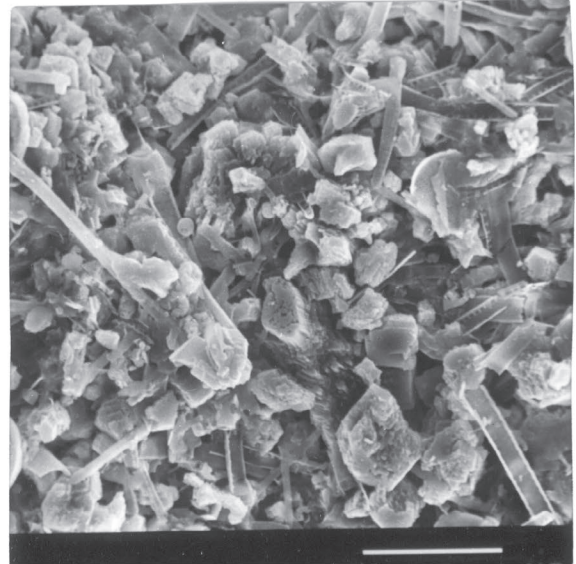
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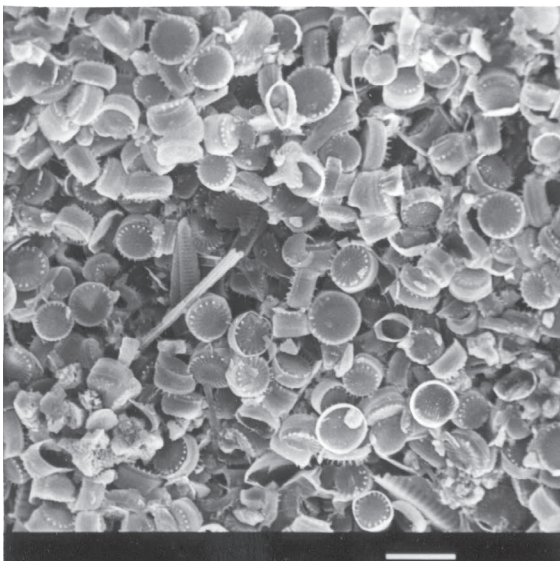
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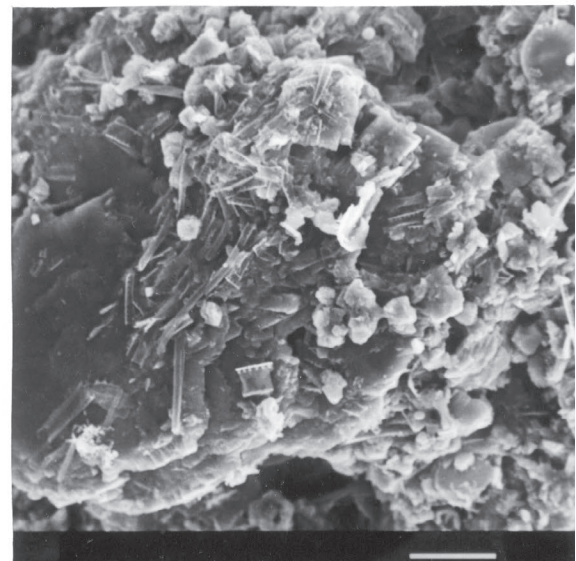
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4



5



6