POLLEN ANALYSIS AT 4-MAD-223

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The Palynological Laboratory of
State University, undertook the extraction and analysis of pollen of sediment samples from the Recreation Point site in April 1976. The extraction procedure was that normally used
ation of the polliniferous
flotation), followed by HF and KOH treatments to reduce the inorganic and organic content of that fraction. The procedure was very effective in concentrating the pollen for observation under the microscope,
despite the quantity of woody tissue in the resulting extract acetolysis treatment is neither necessary nor desirable. It is not necessary is unlikely to reduce the non-polliniferous fraction of the substantially, so it would not function to produce a significantly greater concentration of the pollen for microscopic desirable since it potentially might have a damaging effect thin-walled pollen types of the Cupressaceae and Salicaceae.

Ten of the eleven samples submitted were sediment samples, representing stratigraphic series from the site and a modern surficial sediment sample lected in a relatively undistrubed area south of the site for c
polster surface sample was also analyzed. From the viewpoint of floristic analysis, the moss polster and the surficial sediment sample represent exactly the same pollen rain: pine, oak and some member of the cedar family are prominantly represented, trees adapted alder) occur in somewhat less frequency
ground plants are reflected. The moss polster sample yields a record distinctive by virtue of the greater representation of pine and lesser representation of Cupressaceae (cedar family) pollen, but both quite effectivly live up to expectations as palynological reflections of the vegetation which presently occurs in the sampled area.

The pollen records of the 5 cm and 15 cm levels are in no way different from those representing the modern, obs There is a lower centration of pollen per which is an expected consequence of random destruction of pollen grains
ence between surface and sub-surface deposits is observed almost universally. There is a minor trend of increase in the non-arboreal pollen rain as depth increases, but this is not statistically significant. by the control samples, one may conclude that the vegetation occurring at the site when these samples were deposited was the same as occurs there today. There is no palynological evidence indicating that these records are very old.

The sediment samples collected from the 25 cm level and from deeper levels failed to yield sufficient pollen fo
contain only 1/12 to amount of pollen contained in the upper surface samples. Taken as a group, however, these samples contain the same pollen rain represented in the more polliniferous deposits. There is no reason to suspect that they were laid down at a time that the vegetation of the site area was markedly different
the idea that the deeper samples are deficient in p
climate were different in the past.

The pollen observed was evidently more corroded and damaged, on the average, than the pollen of the upper deposit. However, such damage was not particulary acute. In my opinion, the pollen deficiency of the lower deposit by destuction of pollen the sediments once contained through the passage of time. This is a reasonable possibility, but I believe that these levels were deposited so rapidly as to trap very little pollen. In either case, I do not think these results indicate that further pollen analysis of a aeological deposits in the area should considered unwarrented. Pollen appears not to be particularly difficult to extract from those deposits which contain it, and it would seem that the pollen records of such deposits have a clear and evident relationship to vegetation patterns. These facts can be readily exploited to the advantage of California archaeology.