

Footnotes (cont.)

10. Cave, H. S., 1954, "The Capitan-Castile-Delaware Mountain Problem," Guidebook of Southeastern New Mexico (Fifth Field Conference): New Mexico Geological Society, pp. 117-124 (p. 121 & 123).

It is very peculiar that Nevins has tried to cite the intertonguing of the Castile evaporites with the inner sides of the reef as something that is "difficult for the 'reef' view" (p. 238). Actually it is not a serious difficulty for the reef view; and furthermore, it is a characteristic which demands rather long periods of time (as explained in item # 9 in the text above). Nevins ~~states~~ ^{indicates} that ocean waters which are concentrated enough to deposit evaporites are not conducive to reef growth. Actually this is not a major problem, because no one is trying to claim that the growth of the reef was constant, without interruption, or that the concentration of the sea water remained the same throughout each year. In fact, there is overwhelming evidence that the concentration of sea water did change from normal to concentrated, and back, many times. When the water was highly concentrated, the growth of the reef undoubtedly stopped, but this is understandable, for similar stoppages in the growth of reefs occur even today; e.g., as a result of influx of volcanic materials into the area, with a subsequent resumption of reef growth. (A. G. Mayor, 1924, "Growth Rate of Samoan Corals": Papers From the Department of Marine Biology of the Carnegie Institute of Washington, v. 19, Publication no. 340, pp. 13 and 24).

11. Butler, G. P., 1969, "Modern Evaporite Deposition and Geochemistry of Coexisting Brines, the Sabkha, Trucial Coast, Arabian Gulf": Jour. of Sedimentary Petrology, Vol. 39, No. 1, pp. 70-89.
Also N. D. Newell, et. al., 1953, The Permian Reef Complex of the Guadalupe Mountains Region, Texas and New Mexico: W. H. Freeman and Co., p. 192-193.
12. Dean, Walter E., Jr., 1967, Petrologic and Geochemical Variations in the Permian Castile Varved Anhydrite, Delaware Basin, Texas and New Mexico, Ph. D. Thesis: University of New Mexico, Albuquerque, New Mexico, 326pp.
13. Ibid, p. iii; cf. pp. 29, 37, and 214 ff.
14. Ibid, p. 118; cf. p. 145 for amount of anhydrite deposited from 200 centimeters of sea water.
15. Ibid, p. 118-119 and 144-145.
16. Ibid, p. 11. Also West Texas Geological Society, 1963, "Cross Section Through Delaware and Val Verde Basins From Lea County, New Mexico to Edwards County, Texas,"
17. Lang, W. E., 1949, "Cycle of Deposition in the Salado Formation of the Permian of New Mexico and Texas" (abs): Geol. Soc. America Bull. V. 60, No. 12, p. 1903.
18. West Texas Geological Society, 1967, Bibliography of Permian Basin Geology, West Texas and Southeastern New Mexico, 162 pp.
19. Cramer, H. R., 1969, "Evaporites--A Selected Bibliography": An Assoc Petrol Geologists Bull. Vol. 53, No. 4, pp. 982-1011.