Still another mammoth molar, this time a lower, was shown the writer, while on a deer hunt, by a miner near Breckenridge, Colorado, who stated that it had been found in placer gravels within five miles of that town. Again, it was apparently from the same species, as nearly as could be determined in its damaged state; and this was found at an altitude probably well over 10,000 feet, as nearly as we could judge from known elevations, and without instruments or other means of readily determining the altitude in the time available. It is probable that the scarcity of any but most fragmentary remains, in such deposits, in these high altitudes, is due to the coarse materials generally present, which would tend to grind and crush all bones not most favorably protected; and also, the comparative scarcity of any other type of sediments in these high mountains, which are being exposed by erosion or otherwise, at this time, in deposits which might be expected to produce such remains, rather than to suppose that mammoths were necessarily scarce in the region, when present.

These finds were not seen in place by the writer, so that no detail of the deposits, beyond that given, is possible. The general facts of the occurrence are, however, believed to be reliable. Added to the information previously given, these instances seem to indicate clearly that mammoths of this sort once ranged the high mountain ranges of Colorado; and the specimens seen seem to indicate an early race of the Columbian mammoth. This would seem to point to relatively early Pleistocene times. It will be interesting, when more data has been collected, to learn more of the precise dating of these occurrences. It may throw light on a number of questions of importance. The instances cited are too incomplete to give much desirable data; but they are recorded in the hope that it may cause others, who have the opportunity to visit these interesting regions, to be on the watch for more discoveries, or for new information that will add to our knowledge of these problems.

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BEACH SANDS OF THE ATLANTIC COAST

RECENT investigations of certain of the Atlantic Beach sands of the United States have disclosed some interesting facts. About 120 samples with a geographical range from the northern end of Long Island to Georgetown, S. C., were studied. Most of these samples were obtained through the cooperation of the U. S. Coast Guard Service; the remainder, except in one or two instances, were collected by the investigator. It is planned to extend this study to the sands farther south if enough samples from the coasts of South Carolina and Georgia can be obtained. One of the graduate students in the department of geology is now carrying on a petrographic study of certain selected samples of the sands already collected, but, inasmuch as this work is very time-consuming and will not be completed for some months, he plans to publish the petrographic work as a separate paper at a later date.

In the course of the present study the sands were subjected to a careful mechanical analysis, to a preliminary microscopic examination, and $CaCO_3$ determinations were made. The localities were studied through various maps and charts, chiefly those of the Coast and Geodetic Survey, and in some cases were visited. While the results of this study will appear elsewhere in full, certain conclusions seem to warrant brief mention at this time.

1. The coast may be divided into several rather distinct sections so that the sands of any one section show close relationships in respect to grain size, $CaCO_3$ content, mineralogical composition, etc. These divisions of the coast are, in the main, limited by natural breaks in the continuity of the beaches, *e.g.,* New York Harbor, Chesapeake Bay, Delaware Bay, etc.

2. The general movement of the sand appears to be southwestward along the coast in accordance with the usual conception, although the direction of drift seems to be in places reversed so that for comparatively short distances the movement is in the opposite direction.

3. There is rather strong evidence that the *effective shore currents* near the mouths of large bays and estuaries move toward such openings even if this involves a local reversal of the general drift toward the southwest. It appears most probable that this effect is caused by the action of tidal currents sweeping in and out of such openings.

4. While in general the sand at any one locality seems to have been transported there from a more northerly region, there is considerable evidence that a portion at least has been supplied locally. In several instances evidence of offshore submarine erosion with deposition on the beaches has been found.

5. In almost all cases each sample shows a very regular distribution of grain size implying that the entire sample has had approximately the same history during the immediate past, although in a few cases the size-distribution curve shows a double peak which would seem to indicate that such a sample might be composed of two different lots of sand which had been intermingled on the beach.

6. North of Caffeys Inlet the $CaCO_3$ content of the sand is almost negligible, never rising above 0.6 per

cent., whereas south of this point the $CaCO_3$ content is always considerable, reaching a maximum of 17 per cent. in North Carolina. Farther south, judging from inadequate samples, even higher figures are reached: a sand from Flagler Beach, Florida, contains 57 per cent. $CaCO_3$.

7. Although on superficial examination the shell fragments seem to be concentrated in the coarser fractions of the sand, in almost all the samples tested the sand averages slightly coarser after the shell material has been leached out by dilute HCl, implying that more of this material exists in a fine than in a coarse state. However, the differences in fineness between the leached and unleached sands are usually so slight that for ordinary purposes no account of the shell material need be taken when the average fineness of a sand is computed.

8. There seems to be a slight tendency for the coarser sands to contain the most $CaCO_3$, although this tendency is so slight that its reality might perhaps be questioned.

A more detailed paper is in the course of preparation, and will appear elsewhere in the near future.

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THE SPECIFIC EFFECT OF VITAMIN B ON LACTATION, GROWTH AND WATER METABOLISM[1]

IN previous communications it has been demonstrated that when the maternal diet is inadequate in vitamin B there develops, just as in the case of non-lactating rats, a reduction in food intake during lactation,[2] and, in the absence of specific information, the failure of nursing young on such a dietary régime was attributed entirely to the reduction of the plane of nutrition. We now have conclusive evidence that vitamin B, in addition to stimulating the appetite, exerts its specific beneficial influence on the animal organism, as evidenced by the lactation efficiency index, unrelated to food intake. Such results have become apparent by the introduction of the paired feeding type of experimentation, *i.e.*, lactating females are restricted to the same amount of the daily intake of food and water as the litter mates receiving the vitamin B deficient ration. Keeping the plane of nutrition constant, the effect of vitamin B *per se* on the reduction of infant mortality and growth of nursing young becomes very pronounced. In addition, we are at present finding that vitamin B exerts its *specific* influence on growth, also that there is a definite relationship between water and food intake in this avitaminosis. An excess of the proportionate amount of water to the reduced food intake, after this deficiency disease has progressed to the more accentuated stages, is detrimental to the organism. These observations will soon appear *in extenso* elsewhere.

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[1] Research Paper No. 197, Journal Series, University of Arkansas.

[2] B. Sure, *J. Biol. Chem.*, 1928, 76, 685; *J. of Nutr.*, 1928, 1, 139.

[3] A. Gulick, *Amer. J. of Physiol.*, 1922, 59, 483; *ibid.*, 1924, 68, 131; J. C. Drummond, and G. F. Marrian, *Biochem. J.*, 1926, 20, 1229; H. H. Mitchell, and J. R. Beadles, *J. of Nutr.*, 1930, 2, 225.

THE ESKIMO WORD "IGLU"

THE article by the Reverend George W. Lay in SCIENCE of December 5, last, says that "if one is going to use a phrase or word from a foreign language, it is quite necessary to know the meaning in that language." There is a special reason for applying this principle to the Eskimo word *iglu* (*igloo, igdlu*) which crops up with increasing frequency all the way from kindergarten songs through travel tales, school geographies and movie titles to anthropological manuals and text-books on architecture.

Many of the text-book writers and probably all the movie directors think that *"iglu"* is the Eskimo word for snowhouse. But few scholars have known better the language they wrote about than Samuel Kleinschmidt knew the Eskimo of western Greenland. Defining *iglu*, he says:[1] "A house. It appears this word . . . was formed from *ikiva* and therefore the fundamental meaning appears to be something within which to lay or shelter oneself; the house is therefore spoken of as a *shelter from the weather.*" (Italics ours.)

This definition was a result of a lifetime spent by Kleinschmidt in Greenland; I have spent ten winters among the Eskimos of Alaska and northern Canada applying myself steadily to the language, and one result is my definition of *iglu* as *a more or less permanent shelter for man or beast.*

Naturally, this very general word is used in any district most often for that type of shelter which is there most common—if *iglu* is in use in that dialect.

Noticing that *iglu* is, in the Smith Sound district of Greenland, most commonly used for houses of earth over a framework of wood, bones or stone, Ekblaw[2] discusses *the difference between iglus and snowhouses.* Other writers have done the like for other districts

[1] "Den Grönlandske Ordbog," Copenhagen, 1871.

[2] "The Material Response of the Polar Eskimo to Their Far Arctic Environment," Annals of the Association of American Geographers, Vol. XVII, December, 1927.