

curacy of the canvass reports. A survey of medical facilities, particularly for chronic diseases.

PRESIDENT ROOSEVELT has approved a \$10,000 allotment of federal funds for a survey of the big trees in Sequoia National Park, Calif., by the Works Progress Administration, the money to be spent by the National Park Service.

AN interdepartmental committee to coordinate health and related welfare activities of the government, in line with the new Social Security Act was established by President Roosevelt on August 15. The President's statement reads: "In view of the passage and signing of the Social Security Bill there is increasing necessity for better coordination of the health activities of the Federal Government. I am, therefore, creating at this time an interdepartmental committee to give attention to this subject. As members of this committee I have appointed the following government officials: Joseph-

ine Roche, Assistant Secretary of the Treasury, chairman; Oscar Chapman, Assistant Secretary of the Interior; M. L. Wilson, Assistant Secretary of Agriculture, and A. J. Altmeyer, Second Assistant Secretary of Labor. I am directing this committee to include within the scope of its work not only health activities, but closely related welfare activities as well. As its immediate task I am instructing this committee to assume responsibility for the appointment of special committees to be composed of physicians and other technically trained persons within the government service to study and make recommendations concerning specific aspects of the government's health activities. I am confident that this procedure will facilitate the consummation of a series of appropriate cooperative agreements among the various departments of the government. I am also hopeful that in this way we can eventually bring about a complete coordination of the government's activities in the health field."

DISCUSSION

MINNESOTA MAN—A DISCUSSION OF THE SITE

IN a recent and illuminating discussion Antevs¹ has given a possible migration route between the Cordilleran and Keewatin Ice Sheets in the early part of the last glacial retreat. Through this route he believes that men found their way into the Great Plains area and thence spread into the remainder of the Continent some 20,000 or perhaps 15,000 years ago. He believes that they had no early precursors, but he does not question the existence of the "Folsom point-Yuma blade complex." He implies that the makers of these points might have followed the postulated migration route, as the deposits in which these relics have been so far found are generally considered post-glacial, although the proof is not final or conclusive.²

Minnesota Man, however, occurs in silt of presumably somewhat greater antiquity.³ Thus troublesome questions are raised. Now Antevs disposes of these questions by throwing doubt upon the true association of the skeleton with the silt deposit in which it is apparently contained. He says:⁴ "However, both the sample of the silt and photographs, which the writer has seen through the courtesy of Dr. G. A. Thiel, show that the silt bed is disturbed, and this

raises the probability that the person was buried by a landslide long after the formation of the silt." The details of proof and the larger features of this important find can well be left to the complete monograph which Professor Jenks expects to publish this fall. Here I wish merely to discuss the possibility of land-sliding at or near this site.

Through the kindness of Professor Jenks and under his guidance I visited on June 23 the site at which the skeleton known as Minnesota Man was found, on U. S. Highway No. 59. Franklin T. McCann accompanied me, and P. F. Stary and Carl Steffen joined us at Detroit Lakes.

The site is a road cut about three miles north of Pelican Rapids and near the north end of Prairie Lake, where Pelican River enters. Here the ground rises in gentle rolling slopes from the elevation of Pelican River at 1,313 feet to the top of the cut at 1,336 feet. On the line of the road grade the distance is 650 feet. The average gradient of the somewhat irregular natural slope is 3.5 feet in a hundred. As the road crosses the river on an elevated grade, the road grade through the cut is much gentler. The skeleton was found beneath the road grade about a hundred feet south of the high point of the hill and in the direction away from the river. This southerly slope leads with equally gentle grades to a shallow valley beyond which rises a still higher hill in which the highway again lies in a cut.

The silt layers are of the coarsely varved type and practically horizontal as seen in the steep walls of

¹ Ernst Antevs, *The Geographical Review*, 25: 2, 302-309, April, 1935.

² Kirk Bryan, *Geol. Soc. Amer. Bull.*, 40: 128-129, 1929; E. B. Howard, *SCIENCE*, 78: 524, 1933; A. E. Jenks, *SCIENCE*, 80: 205, 1934.

³ A. E. Jenks, *SCIENCE*, 75: 607-608, 1932; *Proc. Nat. Acad. Sci.*, 19: 1-6, 1933.

⁴ E. Antevs, *idem.*, p. 305.

the cut on either side of the site. There is a humus soil zone ("A" horizon) six inches to a foot thick and below it an amorphous "B" horizon to a total depth of between three and four feet. This "B" horizon shows some lime accumulation at the base and there are a few veins of limey material extending down into the underlying laminated silt. These soil zones conform to the contour of the hill and from the top of the hill down the slope cut successive layers of silt. As each layer comes into the soil zone it is slightly distorted, but there is no evidence of sliding or of pronounced movement either of the soil or of the underlying layers of silt. On slopes as low as are characteristic of this little hill rapid or violent movement of the soil can not be expected, even under the relatively severe frost action of Minnesota winters.

The silt deposit covers several square miles and is eroded into gentle hills and valleys. The Pelican Rapids topographic sheet of the U. S. Geological Survey shows that the highest points lie at elevations of 1,380 to 1,390 feet. On the map the hills appear to be flat-topped and the depressions rounded and mostly enclosed holes. One thinks immediately of a plain pitted with ice-block holes. Whatever the origin of the depressions, the hill slopes are molded by weathering and rain wash. In this process shallow gullies have been opened and then filled. One of these filled gullies crosses the road in the cut south of the site. It has a V-shaped cross-section four to 5 feet deep and twenty to thirty feet across. The filling is of reworked unlaminated silt with small nodules and veins of lime carbonate below a humus zone deeper than usual. Such filled gullies are not uncommon and would permit the burial of objects later than the silt to depths of five feet. There is no evidence that such a gully ever existed in the hill in which the skeleton was found and the differences between the filling of these gullies and the normal laminated silt are so great that no experienced person could confuse the two.

I have also examined the photographs taken by Professor G. A. Thiel. They illustrate the present condition of the cuts and have a slightly deceptive aspect. One taken in the cut south of the site shows what superficially appear to be slight offsets in the laminae of the silt. These banks have now been exposed to the weather for more than two years without being retrimmed. Parallel to the face of the cut there is a skin of frost-heaved material from two inches to a foot thick. This can easily be peeled off and the laminae then appear as continuous and smooth lines.

The silt of this locality rests on sand and has a slightly undulatory contact on the sand. The contact appears to rise toward the south and, whereas it lies

below the road grade at the first cut, it rises above grade at the second or southern one. These undulations are also well shown in large road-cuts about seven miles southeast on the shores of Lake Lida near Oak Lodge. Here the silt rests unconformably on yellow till whose surface was evidently the hilly eastern boundary of the lake on which the silt was deposited. The silt dips away from the hills, and its deformation may be attributed to differential compaction. Whether all the undulations of the silt can be so attributed can only be determined by intensive fieldwork.

At this locality also there are narrow steep-sided gullies which cut both till and silt. The side slopes range from ten to thirty degrees. Adjacent to these hill slopes the silt is faulted in successive faults each with a throw of two to three feet. These faults are obvious relics of landslides, but the slopes on which they occurred are many times greater than those of the small hill within which the skeleton was found.

The positive evidence that the skeleton lay about nine feet below the surface and below undisturbed silt laminae has been assembled by Professor Jenks. I had the opportunity of talking to Carl Steffen, the workman whose keen eye detected the shell ornament and who uncovered the skeleton. Mr. Stary, the engineer in charge, was also present. The testimony of these intelligent men that the skeleton was found below undisturbed silt, the laminae of which were clearly visible to their accustomed eyes in the smooth slope of the shallow V-shaped cut made by the grader, can not be lightly disregarded.

In contrast, my brief inspection provides negative evidence. In the vicinity of the site there are no geologic phenomena in sight or processes in action that afford an indication of or reasonable probability of landsliding or similar disturbances which would lead to the intrusive deposition of the skeleton into the silts. The age of the silts is, therefore, critical and will be adequately treated in the forthcoming report by Professor Thiel, who has fitted the deposition of this silt into the glacial history. The undulations of the silt, its considerable dissection by streams, the peculiar topography of its enclosed depressions, its deep soil all testify to a measurably greater antiquity than the silt beds of nearby Lake Agassiz.

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THE OCCURRENCE OF ANOPHELES MACULIPENNIS IN MEXICO

ACCORDING to Berber, Komp and King¹ and Barber and Forbrich,² *Anopheles maculipennis* Meig. is com-

¹ *Public Health Reports*, xlv, No. 22, pp. 1300-1313, Washington, D. C., May 31, 1929.

² *Ibid.*, xlviii, No. 22, pp. 610-623, June 2, 1933.