

THE EXISTENCE OF AN EARLY PALÆOLITHIC
BED BENEATH THE GLACIAL BOULDER CLAYS
IN SOUTH-WEST SUFFOLK.

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THE finding of even a few rude implements, *in situ*, beneath the blue boulder clay is of considerable interest and importance, as they afford evidence that man must have existed on this old land surface long before the commencement of the Glacial period. The following are particulars:—

During 1909 three deep private wells were sunk in this portion of south-west Suffolk. They were about five miles apart, and ranged east and west. As they were all in parishes in the district for which I am medical officer of health, I kept them under observation.

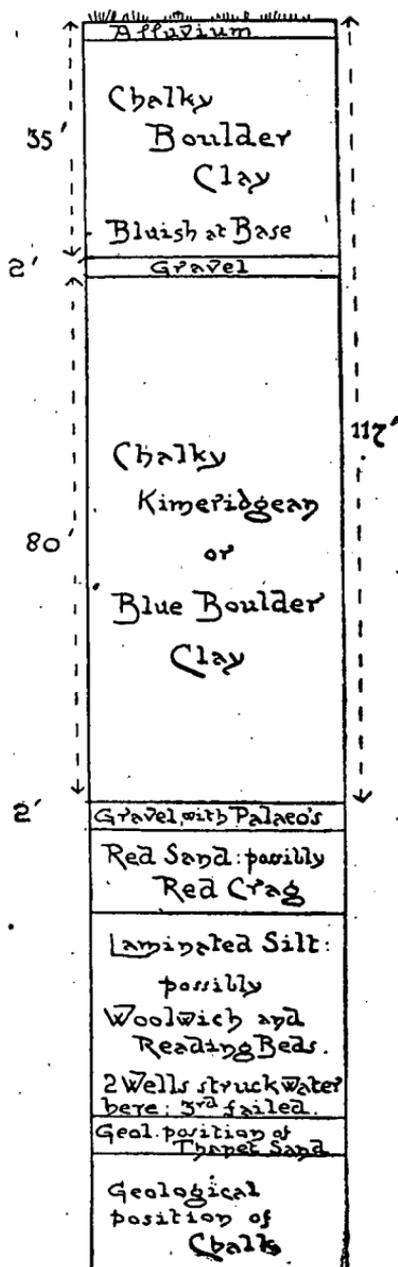
The accompanying section shows the geological formations which occur here, and the average thickness of the boulder clays, at the Ordinance datum height of 270 to 280 feet, on which level all the wells were situated.

After sinking through the chalky boulder clay, and the blue boulder clay, to a depth of over 100 feet, a seam of unrolled flint gravels was struck in each well averaging about 2 feet thick. I carefully examined what was bucket raised of this gravel, and found a few rude flint implements among it. These I sent to Mr. Reginald Smith, at the British Museum, who had them also examined by other authorities, and some in the early Palæolithic Bed beneath the blue boulder

clay were passed as being of human workmanship. Allowing for the very limited area from which these were obtained, if only two or three are genuine, it is still sufficient evidence of man's existence prior to the Glacial period.

The site of the wells was in the following parishes:—First, Great Waldingfield; yielded three genuine and several doubtful implements. The Rev. E. Hill, F.G.S., was with me at the time I first observed these indications, and also took section of the well. Second, Stanstead; yielded one genuine and several doubtful implements. Third, Hawkedon; specimens all doubtful.

An interesting connection with these wells occurs in a large gravel pit in the parish of Acton. This pit lies about four miles south of the line of the three wells and at the lower level of 130 feet on the slope of the Stour Valley. Here there lies, beneath 20 to 30 feet of chalky boulder clay, an accumulation of gravel, probably derived



from the melting and retreating of the blue boulder clay during an interglacial period. Boulders and gravels are much chipped and battered, showing torrent action; still among them are found some genuine flint implements of similar type to those I found in the deep wells, washed down, I would say, from a more southern portion of the same preglacial land surface.

The first find of palæoliths in Acton pit, about four years ago, was made by the Rev. J. D. Gray, late vicar of Nayland, and afterwards, with Mr. F. J. Bennett, F.G.S., and myself, various types were found. I think there can be little doubt that there is a connection with the implements in this pit and my wells.

There are some perplexing problems yet to be solved with regard to the glacial boulder clays in East Anglia; in north Suffolk the chalky and the blue are to be found lying side by side, while in south-west Suffolk the chalky boulder clays overlie the blue, with evidences of a long interglacial period.

Respecting the connection and identity which seems to exist between the preglacial gravels of the wells and the Acton pit gravels, I would further remark, that the latter are situated in a depression on the upper part of the Stour Valley, and the relative site levels of these two gravels show an incline or drop of 50 to 60 feet; quite sufficient to account for the torrent action, which took place during the melting of the blue clay glacier, and so swept portions of the preglacial gravels into this Acton pit depression.

There are numerous drift and valley gravel pits in this neighbourhood, some at higher and some at lower levels, but none resemble the Acton pit gravels, most of which are black and dark brown flints, harder and more durable, and therefore fetch a higher price than any of the other gravels.