

authors, see p. 225 *infra*), a species of the South of France no longer inhabiting the British Isles. The same geologist has also found, since we were at Biddenham, several other flint tools of corresponding type, both there and at other localities in the Valley of the Ouse, near Bedford.

The boulder clay, No. 2, extends for miles in all directions, and was evidently once continuous from *b* to *c*, before the valley was scooped out. It is a portion of the great marine glacial drift of the midland counties of England, and contains blocks, some of large size, not only of the oolite of the neighbourhood, but of chalk and other rocks transported from still greater distances, such as syenite, basalt, quartz, and new red sandstone. These erratic blocks of foreign origin are often polished and striated, having undergone what is called glaciation, of which more will be said by and by. Blocks of the same mineral character, embedded at Biddenham in the gravel No. 3, have lost all signs of this striation by the friction to which they were subjected in the old river-bed.

The great width of the valley of the Ouse, which is sometimes two miles, has not been expressed in the diagram. It may have been shaped out by the joint action of the river and the tides when this part of England was emerging from the waters of the glacial sea, the boulder clay being first cut through, and then an equal thickness of underlying oolite. After this denudation, which may have accompanied the emergence of the land, the country was inhabited by the primitive people who fashioned the flint tools. The old river, aided perhaps by the continued upheaval of the whole country, or by oscillations in its level, went on widening and deepening the valley, often shifting its channel, until at length a broad area was covered by a succession of the earliest and latest deposits, which may have corresponded in age to the higher and lower gravels of the valley of the Somme, already described, p. 130.