# *Contributions towards a Description of the district of Meneage.*

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This district comprehends about 58¾ square miles, of which the serpentine occupies about 26, the sienite 6½, the greenstone and mica slate at the Lizard almost one mile, and the remaining 25½ are slate.

Masses of greenstone, some slaty and some amorphous, abound in that part of the slate formation which is near the serpentine and the sienite, and in the serpentine where it is near the slate; and masses of serpentine are found in sundry places in the slate formation; viz., north of Rosuick, and near Trezebal, Treworgey, and Polkerris. (See specimens Nos. 88, 124, 126, 145.)

The slaty formation which lies on the northern side of the serpentine and sienite, dips towards it in a direction varying between S.E. and S.W., the angle of the dip being variable from 10° to 60° or 70°, the particulars of which are given in the description of the several spots hereinafter referred to. This dip seems to have reference to the granite formation of Constantine on the north, and is a continuation of the general inclination of the slaty strata dipping throughout Cornwall (I believe without exception) from the granite.

Immediately south of Mawgan church, there appears to be a large course of elvan (see Nos. 246, 247, 248, 250) ranging about E.N.E. and W.S.W., and dipping S.S.E., which I have not had an opportunity of tracing further west, nor of examining its connexion with the cliff at Mawgan, and its extension eastward. About half-a-mile northward from this course, there appears to be another which I have only seen near Treverry. (See No. 263.)

The greenstone and mica slate forming the Lizard promontory, dip in the western cliffs E.S.E. 35° to 40°: in the southern cliffs N.E. to E.N.E. 10° to 20°: and in the eastern cliffs N. to N.E. 10° to 20°.

At Cadgwith the strata of greenstone dip N. to N.W. 15° to 30°.

At the cliff at Portreath, where there is a junction of the serpentine and the greenstone, the division is well marked, showing the serpentine overlaying the greenstone at an angle of about 45°. (See No. 26.)

I have been informed there are conglomerate formations in the cliffs near Pennare Point, but I have had no opportunity of seeing them.

On Crousa-Downs, which I believe is between 200 and 300 feet above the level of the sea, and forms a sort of plain, extending over an area of more than a mile east and west, by about a half-a-mile wide (there not being any higher ground in the neighbourhood) many pits have been sunk to the depth of 8 or 10 feet, in which are great numbers of stones of quartz and greenstone which have been more or less rounded, apparently from having been subject to attrition by the action of water: they are generally small, but some among them may be as much as six or seven pounds weight. Another such intermixture of quartz pebbles with the subsoil may be seen on a common half-a-mile north-east of Mayne-ambre in the parish of Crowan.

The serpentine rock is covered by a poor soil, owing probably to the presence of the magnesia which abounds in that stone; but where there are greenstone intersections the soil is better, in proportion to the decomposed greenstone that may exist in it. The sienite is covered by an excellent soil, and by its decomposition it yields a vast quantity of *marl*, which is used for manure, as is also much of the decomposed greenstone in and near the serpentine formation: I believe, however, that the value of these manures varies much, in proportion as the ground which affords them is more or less mixed with, or passing into, serpentine or slate.

The greenstone and micaceous slate formation at the Lizard is accompanied by a very good soil, as almost all the greenstone formations are: much of it is decomposed, and is dug up and carried off for manure.

The slaty grounds are of an ordinary character, and form in general moderately good arable lands, in some places much improved by the intersections of the masses of greenstone.

In the following list and description, the numbers refer to the several spots in the map which were examined, and to the corresponding specimens of the rocks which have been cursorily looked at and described accordingly; but it will be desirable to have a more perfect examination of them by a competent mineralogist, who may be able, among other useful deductions, to ascertain whether or not the several formations may differ in their texture as they approach to or recede from others.

*Here follow references to the specimens, and descriptions of the rocks from which they were taken. The paper was accompanied by a geological map of the district.*