

stone, and other lithological varieties, can be traced all along by Westerham, Merstham, Guildford, the Hog's Back, Farnham, and the extreme west of the area in the country round Binstead, Selbourne, and the ground about two miles west and south of Petersfield, where, as far as colour goes, it might often be taken for chalk.

On the south side of the Wealden area, the Upper Greensand maintains the same general character by Cocking and Barlavington as far as Steyning, where its lithological character begins to change, and the beds pass into 'sandy marl and marly sand,' and near Eastbourne the strata are decidedly sandy.

Important deductions are to be drawn from the consideration of the lithological changes that take place in the character of the Upper Greensand, which will afterwards appear. A gradual change may be traced all the way from Devonshire to Cambridgeshire and the east end of the Wealden area, which throws some light on the physical geography of the time, especially when taken in connection with the circumstance, that out of more than 200 species of fossils in the Gault, about 46 per cent. pass onward into the Upper Greensand.¹ The Upper Greensand is often fossiliferous, containing *Cycads* and *Coniferous woods*; *Sponges*, *Siphonia pyriformis*, &c.; a few *Foraminifera*; *Corals*, *Trochomilia tuberosa*, *Micrabacia coronula*; many Echinoida, the chief of which belong to the genera *Cidaris*, *Cardiaster*, *Echinus*, *Pseudo-diadema*, *Salenia*, &c. Brachiopoda are common, *Terebratulæ* and *Rhynchonellæ* (*T. biplicata*, *Rh. latissima*,

¹ For much information on the Upper Greensand of the Wealden area see 'Memoirs of the Geological Survey, Geology of the Weald,' by W. Topley, 1875.