middle course, and assign to this system two sections; viz. the present, to its upper, and the ensuing, to its lower beds; and this division will be sufficiently natural, since all its upper beds may fairly be regarded as subordinate to the great oolite, and all the lower to the calcareo-siliceous sand which forms the base on which it rests, although the line at the junction of the upper and lower beds must still be drawn in a somewhat arbitrary manner. In the present section then it will be our object to treat under the several usual heads, of all the circumstances connected with the upper beds subordinate to the great oolite, noticing in order under each head the characters of the several subdivisions.

(*a*) *Chemical and external characters.* Viewed generally, the chain of hills composed of this oolitic system will be found to consist of one great oolitic mass, resting upon the beds of calcareo-siliceous sand (itself containing some beds of coarser oolite) which we have referred to the next section; but on more minute examination it will be found that the upper part of this great oolitic mass, forming the acclivity of the hills where they rise from the valley occupied by the Oxford clay, present strata of a character sufficiently distinct from the great body of the oolite to entitle them to a separate description; these, instead of rising in thick masses, are generally either fissile or rubbly; are much mingled with clay, forming as it were a link between the principal deposit of purely oolitic beds, and the succeeding argillaceous beds; in place of the yellowish tinge of the oolite, they have very generally a blue colour, or in some beds a pasty appearance and a dead white colour not unlike chalk. As far as our observations at present extend, it should appear to be impossible, or nearly so, to trace any divisions of these upper beds resting on the great body of the oolite, which may be certainly applied to every part of the course pursued by this system of rocks through the island; since they appear rather as accidental varieties of this great oolitic deposit, where, as we have already observed, a mixture of argillaceous precipitates led the way to the great mass of the latter character which prevailed in the next succeeding period. In some instances, however, the precipitates of argillaceous and calcareous matter, during this intermediate period, appear to have followed one another alternately, at sufficient intervals to allow the formation of tolerably thick beds of either kind, which may be traced with regular order through tolerably extensive districts; and even where this regularity does not absolutely exist, still a general uniformity of character will be found to distinguish the upper members of the series from its other portions.