

formation than geology can give, but there will be many occasions for the exercise of this science where tunnels, and deep cuttings often show loose sands and other formidable things unexplored by the boring-rod, though not beyond the expectation of a geologist.

The choice of a line of country for canals may often be rightly governed, by attending to the series of strata, and the dislocations to which they are subjected. For thus the summit levels may often be conducted in argillaceous tracts, or in synclinal hollows, where not only no waste of water need be dreaded, but by suitable trials fresh supplies may be had at moderate depths from the surface.

Building Materials.

The assistance which Geology can render to the architect in the choice of building materials is considerable, but not easily defined. Indeed, it is rather because a geologist of experience has necessarily directed his attention to the various degrees of resistance to decay, which rocks of different kinds present, than by any deductions from pure geology, that he can materially aid researches in this respect. There is no doubt that very great benefit would result to the building art, if the whole kingdom were surveyed by geologists and architects, for the purpose of determining generally the occurrence and qualities of stone suited for great and costly edifices. In such a survey it would be proper to inquire how far the indications of durability presented in natural sections were corroborated by the evidence of ancient buildings; and a complete investigation would require further the examination of the chemical quality, mechanical strength, thickness, and other circumstances of the several beds of a rock.

The importance of this caution will be evident when we state that Roman sculptures remain at Bath and York, executed in oolite, magnesian limestone, and millstone grit, which yet retain all their characteristic perfection, while other Bath oolite, magnesian limestone,