

which proves even so much as this sympathy in the case of Arabian philosophers.

A good deal has been said of late of the coincidences between his views, and those of his great namesake in later times, Francis Bacon.⁴ The resemblances consist mainly in such points as I have just noticed; and we cannot but acknowledge, that many of the expressions of the Franciscan Friar remind us of the large thoughts and lofty phrases of the Philosophical Chancellor. How far the one can be considered as having anticipated the method of the other, we shall examine more advantageously, when we come to consider what the character and effect of Francis Bacon's works really are.⁵

5. *Architecture of the Middle Ages.*—But though we are thus compelled to disallow several of the claims which have been put forwards in support of the scientific character of the middle ages, there are two points in which we may, I conceive, really trace the progress of scientific ideas among them; and which, therefore, may be considered as the prelude to the period of discovery. I mean their practical architecture, and their architectural treatises.

In a previous chapter of this book, we have endeavored to explain how the indistinctness of ideas, which attended the decline of the Roman empire, appears in the forms of their architecture;—in the disregard, which the decorative construction exhibits, of the necessary mechanical conditions of support. The original scheme of Greek ornamental architecture had been horizontal masses resting on vertical columns: when the arch was introduced by the Romans, it was concealed, or kept in a state of subordination: and the lateral support which it required was supplied latently, marked by some artifice. But the struggle between the *mechanical* and the *decorative construction*⁶ ended in the complete disorganization of the classical style. The

⁴ Hallam's *Middle Ages*, iii. 549. Forster's *Mahom.* U. ii. 313.

⁵ In the *Philosophy of the Inductive Sciences*, I have given an account at considerable length of Roger Bacon's mode of treating Arts and Sciences; and have also compared more fully his philosophy with that of Francis Bacon; and I have given a view of the bearing of this latter upon the progress of Science in modern times. See *Phil. Ind. Sc.* book xii. chaps. 7 and 11. See also the Appendix to this volume.

⁶ See Mr. Willis's admirable *Remarks on the Architecture of the Middle Ages*, chap. ii.

Since the publication of my first edition, Mr. Willis has shown that much of the "mason-craft" of the middle ages consisted in the geometrical methods by which the artists wrought out of the blocks the complex forms of their decorative system.

To the general indistinctness of speculative notions on mechanical subjects prevalent in the middle ages, there may have been some exceptions, and especially so long as there were readers of Archimedes. Boëthius had translated the