magnitude sufficient to merit the most careful efforts for their removal. The *data* also, which were in like manner the introduction to the whole art of geometrical investigation, seemed to call more loudly for his amending hand. For it appears that the Saracens, who have preserved to us the writings of the ancients, have contented themselves with admiring these celebrated works, and have availed themselves of the knowledge which they contain ; but they have shewn no inclination to add to the stock, or to promote the sciences which they had received. They could not do any thing without the synthetical books of the geometers ; but, not meaning to go beyond the discoveries which they had made, they neglected all the books which related to the analytic art alone, and the greatest part of them (about twenty-five out of thirty) have irrecoverably perished. The data of Euclid have fortunately been preserved, but the book was neglected, and the only ancient copies, which are but three or four, are miserably erroneous and mutilated. Fortunately, it is no very arduous matter to reinstate this work in its ori­ginal perfection. The plan is precise, both in its extent and its method. It has been restored, therefore, with success by more than one author. But Dr. Simson’s comprehensive view of the whole analytical system pointed out to him many occasions for amendment. He therefore made its restitution a joint task with that of the elements. All the lovers of true geometry will acknowledge their obligations to him for the edition of the *Elements* and *Data* which he published about 1758. The text is corrected with the most judicious and scrupulous care, and the notes are inestimable, both for their information, and for the tendency which they must have to form the mind of the student to a true judgment and taste in mathematical subjects. The more accomplished reader will perhaps be sometimes disposed to smile at the axiom which seems to pervade the notes, “ that a work of Euclid must be supposed without error or defect.” If this was not the case, Euclid has been obliged to his editor in more in­stances than one. Nor should his greatest admirers think it impossible, that in the progress of human improvement, a geometrical truth should occur to one of these latter days, which escaped the notice of even the lynx-eyed Euclid. Such merit, however, Dr. Simson nowhere claims, but lays every blame of error, omission, or obscurity, to the charge of Proclus, Theon, and other editors and commentators of the renowned Grecian.

There is another work of Apollonius on which Dr. Simson has bestowed great pains, and has restored, as we imagine, *omnibus numeris perfectum,* namely, the *Sectio Determinata ;* one of those performances which are of indispensable use in the application of the ancient analysis. This also seems to have been an early task, though we do not know the date of his labours on it. It did not appear till after his death, be­ing then published along with the great work, the *Porisms* of Euclid, at the expense of the Earl Stanhope, a nobleman intimately conversant with the ancient geometry, and zeal­ous for its reception amongst the mathematicians of the pre­sent age. He had kept up a constant correspondence with Dr. Simson on mathematical subjects ; and at his death in 1768, engaged Mr. Clow, professor of logic in the university of Glasgow, to whose care the Doctor had left all his valu­able papers, to make a selection of such as would serve to support and increase his well-earned reputation as the re­storer of ancient geometry.

We have been thus particular in our account of Dr. Sim­son’s labours in these works, because his manner of execu­tion, whilst it does honour to his inventive powers, and shews his just taste in mathematical composition, also confirms our former assertion, that he carried his respect for the ancient geometers to a degree of superstitious idolatry, and that his fancy, unchecked, viewed them as incapable of error or im­perfection. This is distinctly to be seen in the emendations which he has given of the texts, particularly in his editions of Euclid. Not only every imperfection of the reading is ascribed to the ignorance of copyists, and every indistinct­ness in the conception, inconclusiveness in the reasoning, and defect in the method, is ascribed to the ignorance or mistake of the commentators ; but it is all along assumed that the work was perfect in its kind, and that by exhibiting a perfect work, we restore the genuine original. This is surely gratuitous ; and it is very possible that it has, in some instances, made Dr. Simson fail of his anxious purpose, and give ns even a better than the original. It has undoubtedly made him fail in what should have been his great purpose, namely, to give the world a connected system of the ancient geometrical analysis, such as would, in the first place, exhi­bit it in its most engaging form, elegant, perspicuous, and comprehensive ; and, in the next place, such as should en­gage the mathematicians of the present age to adopt it as the most certain and successful conductor in those laborious and difficult researches in which the demands of modem science continually engage them. And this might have been expected, in the province of speculative geometry at least, from a person of such extensive knowledge of the proper­ties of figure, and who had so eminently succeeded in the many trials which he had made of its powers. We might have expected that he would at least have exhibited in one systematic point of view, what the ancients had done in se­veral detached branches of the science, and how far they had proceeded in the solution of the several successive classes of problems ; and we might have hoped, that he would have instructed us in what manner we should apply that method to the solution of problems of a more elevated kind, daily presented to us in the questions of physico-mathematical science. By this he would have acquired dis­tinguished honour, and science would have received the most valuable improvement. But Dr. Simson has done lit­tle of all this ; and we cannot say that great helps have been derived from his labours by the eminent mathematicians of this age, who are successfully occupied in advancing our knowledge of nature, or in improving the arts of life. He has indeed contributed greatly to the entertainment of the speculative mathematician, who is more delighted with the conscious exercise of his own reasoning powers, than with the final result of his researches. Yet we are not even cer­tain that Dr. Simson has done this to the extent he wished and hoped. He has not engaged the liking of mathemati­cians to this analysis, by presenting it in the most agreeable form. His own extreme anxiety to tread in the very foot­steps of the original authors, has, in a thousand instances, precluded him from using his own extensive knowledge, that he might not employ principles which were not of a class in­ferior to that of the question in hand. Thus, of necessity, did the method appear trammelled. We are deterred from em­ploying a process which appears to restrain us in the appli­cation of the knowledge which we have already acquired ; and, disgusted with the tedious, and perhaps indirect path, by which we must arrive at an object which we see clearly over the hedge, and which we could reach by a few steps, of the security of which we are otherwise perfectly assured. These prepossessions are indeed founded on mistake ; but the mistake is such, that all fall into it, till experience has enlarged their views. This circumstance alone has hitherto prevented mathematicians from acquiring that knowledge of the ancient analysis which would enable them to proceed in their researches with certainty, dispatch, and delight. It is therefore deeply to be regretted, that this eminent ge­nius has occupied, in this superstitious palæology, a long and busy life, which might have been employed in original works of infinite advantage to the world, and honour to himself.

Our readers will, it is hoped, consider these observations as of general scientific importance, and as intimately con­nected with the history of mathematics ; and therefore as