rest—and a higher sphere,—a thing of loftier nature, nobler skill, more exalted, refined acquirement. I had almost said—of more difficult attainment; and if you will take my words in peculiar meaning I will say so. To scheme house-plan, to contrive house-construction, are matters that (to use this common phrase) any man can do. But in the Parthenon of Athens, in the Cathedral of Rome, in the Minster of York, in the Hospital of Greenwich, there is something that reaches a higher height than this—something whose province our Architect now professes to be his,—and it is of this that we inquire—this thing of the loftier nature, the more difficult attainment, How has he been educated for this same?

And when we cast it up—how much study and of what nature this young Artist has now passed through to fit him for the Artist's work—how much teaching, and of what kind, he has received in that subtle noble thing Design, Art,—what is it? What if I were to say it is *Nothing!* Certainly if we compare it with the teaching of the Painter, Sculptor, Musician, Lawyer, Divine, Physician, Engineer,—with the teaching, I may very well say, of any other professional whatever,—it is really, strangely, *Nothing!* There is a kind of *picking up* calculated upon, and that is all! Even taking architecture at its present miserable value—a little art of patchwork,—this system of pupillage is beneath even a little art of patchwork. And if you look on Architecture, not as it at present stands—confounded strangely with a maze of lower things—its very existence broadly denied as a principle of thought (for what can Precedent be, but the denial of the existence of Design? Antiquity-rule, but the denial of the power of modern mind?)—if you look on our Art, I say, not as at present it has its strange fate to stand, but thinking of it, if you can think of it, as the wide ethereal thoughtful thing it is—the broad bright province of Imagination,—tell me then how it can be that the teaching of the Architect is so little a thing of moment—how Painting, or Music, or Law, or Physic, contains so much more skill, demands so much more study, than this Art of the Beautiful? And it is in such a light that I would have you view it—Architecture in all its grandeur and freedom, an Art of Design. If Architecture is Greek precedent, then I may grant you that with Stuart at your back you are an Architect; you need but the book of canons, the little articles of your little faith. If Architecture is mediæval Freemasoncraft, then I may grant you that with Pugin and Paley and Rickman's Attempt, your creed does not much demand teaching. But if Architecture is an illimitable Art of the Beautiful—an infinite, inexhaustible, essence for the mind of man to draw up from the deep Thought-well of Fancy, its canons the mere canons of Thought and Nature, fully subtle, fully unconfined, uncontractible,—then your Stuarts and Brittons and Paleys sink into the insignificance of mere chroniclers of little corners of an empire; this Art of the Beautiful, this Genius-work of Design, transcends their little limits as the wide Atlantic transcends the little circle that you see, and there are thousands of gallant ships upon its broad bosom besides your own.

When the Architect becomes Artist, truly, Architecture will assume among the Arts a place one of the very highest of all. It is simply because it is not understood—simply because it is—(this saying, by-the-by, is not mine, it is a weapon from the very enemy's camp itself)—because it is "the only branch of human knowledge which remains an exception to this century in its intellectual advancement,"—simply because it is a thing its real full self not known—that it is placed low by even its admirers, and by many excluded entirely from the beautiful circle of the Arts. And when the Architect becomes an Artist truly—when Architecture assumes its very high place—the student of those days will not be the student of these. He will not be merely taken into an office to do the office work—the mere drawing labour, writing labour, arithmetic, of house-building craft; it will be seen that there is a something apart from these,—of nobler kind, of more difficult attainment,—and to learn this—this Art-work—this Architecture—will be an object that a long train of subtle knowledges will be brought to wait upon—a goodly retinue of studies brought to serve. It will be seen that although office-work may serve the end of training the pupil for an office clerk very well, his education for an Architect is quite a different thing.

If I were to enter upon a detailed consideration of Royal Academy studies, Royal Institute studies, University lectures, it would take time which we have not to spare at present, and serve at best very little purpose. Taking Architecture at its present value, every student who has attempted education by these means can testify to their inefficiency; and if we put the art at its own true nobility, it needs but one grasp of the idea to see how utterly all these are a mockery. Neither is it requisite that I investigate the principle of instruction by the master's designs passing, in the present way, through the pupil's hands in the office-work; that this may serve valuable purpose in education cannot be denied, but that it is at all equal to the whole end of education need not be claimed. The young architect,—he on whom we have to depend as professionally taking the practice of this art of design, ought surely to be educated in some manner in the principles of design—trained for a designer.

It is manifest that no such training is had by the present system of architectural education. It is not had directly or indirectly; and the facility with which the carpenter or bricklayer manages, in our day, to set himself up for an architect is just because the education of the professional is very little different from his own. The young architect has had no training for a designer; he has *picked it up*: and picking it up is a thing which, so far as that goes, the carpenter can do just as well. When a stupid man fails utterly and for ever as carpenter, or stone-mason, or slater, his last resource is to turn architect. And not a whit worse an architect does he make on the whole; —frequently, I am ashamed to say, in some valuable respects, much better,—than the "regular dustman" himself, even many a proud metropolitan that we could tell of. It is of no use to denounce the depredations of non-professionals; the professional must step out himself. The only way for our friends to keep the carpenters back is by themselves becoming more truly, properly, architects.

There must be means provided for education in designing. What is commonly called among us a School of Design would undoubtedly be of very great service to this end. Not a drawing-school, though—not a model office. Systematic instruction in Design is what is needed—to teach the young architect Architecture—the art of beautiful design in buildings.

The plan by which I would propose to effect this teaching of Design I shall describe by-and-by, after I have propounded another project in connection with it.

No manner of instruction is complete until the pupil becomes the self-teaching student—studies, thinks, reasons for himself;—the pupil being taught the truth, is very imperfect work till it ripens into the student discovering the truth for himself. The School of Design which I have claimed is not all that is requisite. It is but preparatory—a first class to which there must be a second. Education under a teacher is mere preparation—groundwork for a very great deal which the student has to learn for himself.—When he leaves the pupillage, he is only made ready for entering upon another course of study—another manner of learning. Books come to be thought over in search of principles—not referred to as canons; doctrine is canvassed as opinion,—not received as dogma; a period of life of the most eminent and peculiar value is now entered upon—the years between the boy and the man—when the work of pupillage is being gradually applied to the practical surrounding world, and the mind is energetic in investigation,—thinking and searching and trying—following knowledge for the love of knowledge,—the years of that happy conceit, which is often railed at by the short-sighted as the culpable vanity of inexperienced youth, but which is the wise regulation of a wise Maker for laying a good groundwork of bold thought for the life that is beginning. Just as the ant or bee lays up its store against the winter, so is the human mind in these years of youth, by an instinct as beautifully true, under the same good governance, unconsciously nerving itself for the race—the long race that will weaken it, and weaken it as it runs. The pupillage of boyhood is but the preparation for these years. It is not itself the school, it is but the introduction. Now is the time of study. This lost, the loss cannot be repaired. The man at twenty is unfit for the work of forty; but so, also, is he of forty for ever unfit for the work of twenty. And if the theme of study be work of Fancy and Philosophy, so much the more is this the valuable time for thought. The world will soon drag down such energies as this,—it discords with them, it distracts them among the multiplicity of affairs, confuses, scatters them in the quick hurry of life.

A LEAF ON THE GRAVE OF A FRIEND OF J. BARRY.

James Barry was, undoubtedly, one of the greatest artists *England* ever possessed—as well as the least rewarded; sufficient reasons to account for him not being yet duly appreciated. Still, there they are—his splendid canvasses in the hall of the Society of Arts in the Adelphi, the work of *seven years'* unremitting, and unapplauded, and unrewarded toil. It is a fact, that during this time, Barry often lived on mere bread—all friends having left him, save Edmund Burke, who surely felt some inward con-*genial* attraction towards him. But there was another friend, whom Barry's *inward* being had gained for him, the humble subject of this memoir,—Elizabeth *Cockings*, then the servant, subsequently, up to her death, the housekeeper of the house in Adelphi. There was James Barry—the stern, solitary, misanthropic *eccentric*, and the then, childish, playful girl of eighteen. The girl (we gather from *her own* confessions to us) gazed complacently at those inspired beauteous images, as they grew out of the *mute* canvass; and Barry, perhaps, painted these capricious female figures to astonish his young friend. Many anecdotes she knew to relate, shewing the pride and independence of Genius. A certain Lord had lent Barry some costly work for reference, and as the artist kept it a little while, his lordship wrote him a most friendly letter, *presenting* him with the books. This (poor, undiplomatic) Barry repulsed as a downright insult! What was to be done with a man of such feelings in a commercial, banking, higgling age. Then, he would shut himself up in his cheerless cold room—brooding and pasturing over his own mind, which, perhaps, he did not *understand* himself, and then again dart forth, venting his pride and sentiments in images, which posterity will *understand*, as we certainly do *not*. When, by such behaviour, he confused and baffled all his friends, none could approach him—save Elizabeth. Then she would bring him his meals, *dare* to deliver messages, and make his room as comfortable as his strict (and religiously observed) orders would permit it to be. And then she had to bear his death, and almost neglect of his memory. Years rolled on—there were Barry's paintings, but none for a long while looked at them. But *time* is a great *justifyer*. And then came Canova—and gazed long and intent on these apotheoses of man's history. This consoled Elizabeth's heart, who remained single all her life—as Goethe says, that a person who has ever known a departed *spirit*, can no more enjoy happiness. Be it said to the credit of the managers of the hall in the Adelphi, Miss Cockings retained her place up to her death, one of comparative ease and comfort. But she also has now departed. Few remain who have known James Barry—none, now, who has ever *loved* him.

Smelting Iron.—Expansion.—The recent dreadful accident on the Great Western Railway, caused by the separation of the tire of the driving wheel, shews the importance of care in the welding, and in afterwards testing these and other parts of machines exposed to the action of such powers as locomotives and railway carriages are subjected to. We were astonished at learning during the inquest, that the tire is secured to railway carriage-wheels merely by being put on hot, and therefore in an expanded form, and so griping it by its contraction when cooled. None require to be told, even though they may not have seen, as we have, the floor of a railway carriage in flames, produced by very rapid motion, of the effect of friction on the tire, and the little security this method therefore affords.