

Cosgarne, Truro, Cornwall Oct^r 1st
1781

Dear May,

I received yours of Sep^r 3^d about 10 days ago and would have answered sooner but have been exceedingly busy, and my health as usual very indifferent, so that neither my Body nor my mind have been sufficiently at ease to reply to your kind letter as I wish to do; but as I have no prospect of these circumstances becoming more favourable I have sate down to write to you in the manner I can.

It gives me great pleasure to learn that Charlie shows such good dispositions & so much genius and I think you flatter me in supposing that I had so much at his time of life[.] As to my notions of a proper education for him, I could have wished you had pointed out more decisively the line of life you wish him to pursue, as you have left that in a manner blank[.] I shall begin with my sentiments on that head. The Businesses which require mechanical genius and by which a modest man can get money are few. An Architect, an Engineer Civil or Military, a Ship Carpenter, a Jobbing Smith, a Surgeon, (Painting & engraving are poor businesses)[.] An Architect requires taste & ingenuity, a modest assurance, a knowledge of mankind, and a stock of money or credit, with these it is a very lucrative business. A Civil Engineer requires invention, discriminating judgement in mechanical matters, boldness of enterprize & perseverance, ability to explain his ideas clearly by words[,] writing & drawing, a good constitution to bear fatigue and vexation, a knowledge of, and ability to treat with one part & govern another part of mankind. With these qualifications joined to experience, a man may get a comfortable livelyhood without a stock but can scarcely without some uncommon good luck acquire a fortune but if he has a stock of money and is prudent in his undertakings he may get a fortune. A Military Engineer requires good interest, a taste for drawing cultivated, insinuating manners to acquire the good will of his superiors with a moderate share of mechanical Ingenuity & is after all a poor profession though an honourable one. I forbear mentioning the qualifications necessary for a Job[b]ing Smith or Surgeon, It being evident that they must be such as have been mentioned[.] For any one of these I would recommend to begin his education as follows. Make him a tolerable master of Latin & French[,] he will also be the better to learn a little Greek. Let him write well & be thoroughly taught Arithmetic & Algebra and too much pains cannot be bestowed on Geometry. Cultivate his taste for drawing in India ink but go no farther least it degenerate into painting. He should also be exercised in writing good english. Merchants accounts must not be neglected, without the knowledge & practice of these all the rest are worth nothing[.] When he is 14 put him to Cabinet maker to learn to use his hands & to practice his Geometry, at the same time he should work in a smiths shop occasionally to learn to forge & file[.] Make him at either of these businesses attend the same hours the workmen do who work for their bread that he may learn habits of Industry. After a year spent at these mechanic employments you will perceive more clearly to what his genius tends, and accident or occurrences may point out some eligible Employment for him, to which he should be put Apprentice. In the mean time do all you can to cure him of Bashfullness which will ruin him in this impudent age; but beware he be not led into the opposite vice of self conceit or arrogance which is 1000 times worse. A man of business should be modest, but not timid, push him into such company as you judge proper for him & let him be taught to speak in public without timidity though with modesty[.]

One thing I must mention to be attended to. Most men of ingenuity suffer themselves, to be led astray by their imagination & pursue various things which have only their singularity or curiosity to recommend them to notice, therefore never suffer him to pursue any thing which has not the stamp of utility either in itself or its

consequences; before he attempts to make uncommon things lett him be able to make the most common, and if he does not make a thing well the first time make him do it again after having pointed out the faults of his first performance. Inculcate on his mind that the only use of ingenuity is to aquire money & fame and that if it gets him the first the second will certainly follow. In short before he attempts [to] make a theodolite lett him be able to make a well joined chair. In all he learns lett him be taught accuracy. (a little Learning is a dangerous thing)

I repeat again that if you should intend him either for an Architect or Engineer that to draw well is an essential qualification and will engage men of eminence to take him apprentice on reasonable terms.

When time has pointed out the line of life you would wish him to follow, you may depend upon every assistance which my circumstances can afford him, & by that time I shall probably be able to give you more decided advice & perhaps be more able to assist him in making his way[.] In all that I have said I have had an eye to his going to India but it is plain that in any of them he should learn his business before he setts out and therefore the same steps ought to be pursued as if he were to stay at home.

You need make no apologies for consulting me on any occasion[.] I should be very ungrateful) if I did not do every service in my power to any of your fathers family. All I can do will be but a small return for what he did for me.

Please to present my best respects to M^r Campbell[,] to your Brother and to such of my old friends to whom it may prove agreable.

I remain[,] with the most sincere regard

Dear May

Your ever affectionate Cousin

James Watt

I forgot to mention that I admire Charlie's drawings very much.

Mrs Campbell

Transcribed by William T Johnston 17 April 1975
Source: James Watt College, Greenock