

The Joy of Living Dangerously
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Sanderson of Oundle
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It has been an educational week for me. Home life overshadowed by A-level examination horrors, I escaped to London to address a conference of science teachers. On the train, in anticipation of the inaugural 'Oundle Lecture' which I am nervously to give next week, I read H G Wells's biography of that school's famous old Head: *The Story of a Great Schoolmaster*: being a plain account of the life and ideas of Sanderson of Oundle. The book begins in terms which initially struck me as a little over the top: "I think him beyond question the greatest man I have ever known with any degree of intimacy." But it led me on to read the official biography, *Sanderson of Oundle*, written by a large, anonymous syndicate of his former pupils (Sanderson believed in cooperation instead of striving for individual recognition).

Walking party with Sanderson

I now see what Wells meant. And I am sure that F W Sanderson (1857-1922) would have been horrified to learn what I learned from the teachers I met at the London conference, about the stifling effects of exams, and the government obsession with measuring a school's performance by them. He would have been aghast at the anti-educational hoops that young people now have to jump through in order to get into university. He would have been openly contemptuous of the pussyfooting, lawyer-driven fastidiousness of 'Health and Safety', and of the accountant-driven league-tables that dominate modern education. Quoting Bertrand Russell, he disliked competition and 'possessiveness' as a motive for anything in education.

Sanderson of Oundle ended up second only to Arnold of Rugby in fame, but Sanderson was not born to the world of public schools. Today, he would surely have been drawn to a large, mixed Comprehensive. His relatively humble origins, his northern accent and his lack of Holy Orders gave him a rough ride with the Classical 'dominies' whom he found on arrival at the small and run-down Oundle of 1892. So rebarbative were his first five years, Sanderson actually wrote out his letter of resignation. Fortunately he never sent it. By the time of his death thirty years later, Oundle's numbers had increased from 100 to 500, it had become the foremost school for science and especially engineering in the country, and he was loved and respected by generations of grateful pupils and colleagues. More important, Sanderson had developed a philosophy of education which we should heed to this day.

He was said to lack fluency as a public speaker, but his sermons in the School Chapel could achieve Churchillian heights.

Mighty men of science and mighty deeds. A Newton who binds the universe together in uniform law; Lagrange, Laplace, Leibnitz with their wondrous mathematical harmonies; Coulomb measuring out electricity . . . Faraday, Ohm, Ampère, Joule, Maxwell, Hertz, Röntgen; and in another branch of science, Cavendish, Davy, Dalton, Dewar; and in another, Darwin, Mendel, Pasteur, Lister, Sir Ronald Ross. All these and many others, and some whose names have no memorial, form a great host of heroes, an army of soldiers – fit companions of those of whom the poets have sung . . . There is the great Newton at the head of this list comparing himself to a child playing on the seashore gathering pebbles, whilst he could see with prophetic vision the immense ocean of truth yet unexplored before him . . .

How often did you hear that sort of thing in a religious service? Or this, his genial indictment of mindless patriotism, delivered on Empire Day at the close of the First World War. He went right through the Sermon on the Mount, concluding each Beatitude with a mocking "Rule Britannia.

Blessed are they that mourn, for they shall be comforted. Rule Britannia!
Blessed are the meek, for they shall inherit the Earth. Rule Britannia!

Blessed are the peacemakers, for they shall be called the children of God. Rule Britannia!
Blessed are they that have been persecuted for righteousness sake. Rule Britannia!

Dear souls! My dear souls! I wouldn't lead you astray for anything.

Sanderson's passionate desire to give the boys freedom to fulfil themselves would have thrown Health and Safety into a hissy fit, and set today's lawyers licking their acquisitive chops with anticipation. He directed that the laboratories should be left unlocked at all times, so that boys could go in and work on their own research projects, even if unsupervised. The more dangerous chemicals were locked up, "but enough was left about to disturb the equanimity of other masters who had less faith than the Head in that providence which looks after the young." The same open door policy applied to the school workshops, the finest in the country, filled with state-of-the-art machine tools which were Sanderson's pride and joy. Under these conditions, one boy did damage a 'surface plate' by using it as an anvil against which to hammer a rivet.

That did disconcert the Head for a little when it was discovered. But my punishment was quite Oundelian. I had to make a study of the manufacture and use of surface plates and bring a report and explain it all to him. And after that I found I had learnt to look twice at a fine piece of work before I used it ill.

Incidents like this led eventually, and not surprisingly, to the workshops and laboratories again being locked when there was no adult supervision. But some boys felt the deprivation acutely and, in true Sandersonian fashion, they set out, in the workshops and the library (another of Sanderson's personal prides) to make a thorough study of locks and how to pick them.

In our enthusiasm we made skeleton keys for all Oundle, not only for the laboratories but for private rooms as well. For weeks we used the laboratories and workshops as we had grown accustomed to use them, but now with a keen care of the expensive apparatus and with precautions to leave nothing disorderly to betray our visits. It seemed that the Head saw nothing; he had a great gift for assuming blindness – until Speech Day came round, and then we were amazed to hear him, as he beamed upon the assembled parents, telling them the whole business, "And what do you think my boys have been doing now?"

Sanderson's hatred of any locked door which might stand between a boy and some worthwhile enthusiasm symbolised his whole attitude to education. Another anecdote. A certain boy was so keen on a project he was working on that he used to steal out of the dormitory at 2 am to read in the (unlocked, of course) library. The Headmaster caught him there, and roared his terrible wrath for this breach of discipline (he had a famous temper and one of his maxims was "Never punish except in anger").

The thunderstorm passed. "And what are you reading, my boy, at this hour?" I told him of the work that had taken possession of me, work for which the day time was all too full. Yes, yes, he understood that. He looked over the notes I had been taking and they set his mind going. He sat down beside me to read them. They dealt with the development of metallurgical processes, and he began to talk to me of discovery and the values of discovery, the incessant reaching out of men towards knowledge and power, the significance of this desire to know and make and what we in the school were doing in that process. We talked, he talked for nearly an hour in that still nocturnal room. It was one of the greatest, most formative hours in my life . . . "Go back to bed, my boy. We must find some time for you in the day for this."

Far from seeking garlands in examination league tables by fostering only high flyers,

Sanderson's most strenuous labours were on behalf of the average, and specially the 'dull' boys. He would never admit the word: if a boy was dull it was because he was being forced in the wrong direction, and he would make endless experiments to find how to get his interest. At the same time he did not neglect obvious talent, but here he felt the problem was easy. He loved to give a clever

boy abundant time and material to revel in his special subject. To do this he would spend immense labour over complicated details of organisation; his extraordinary intuition and memory – he knew every boy by name and had a complete mental picture of his ability and character – alone made it possible to deal with each individual according to his needs. But if some boy was standing still and showing no sign of life, he would adopt any expedient to get his attention . . . It was not enough that the majority should do well. “I never like to fail with a boy.”

In spite of – or perhaps because of – Sanderson's contempt for league tables, Oundle did well in them. A faded newspaper cutting, yellowing and regrettably undated, dropped out of my secondhand copy of Wells's book:

“In the higher certificates of the Oxford and Cambridge School examinations Oundle once again leads, having 76 successes. Shrewsbury and Marlborough tie for second place at 49 each.”

Sanderson died in 1922, after struggling to the end of a major lecture to a gathering of scientists, at University College, London. The chairman, H G Wells himself, had just proposed a vote of thanks and called for the first question from the floor, when Sanderson dropped dead on the platform. The lecture had not been intended as a valediction, but the eye of sentiment can read the published text as Sanderson's educational testament, a summation of all that he had learned in 30 years as a supremely successful and deeply loved headmaster.

My head ringing with the last words of this remarkable man, I closed the book and travelled on to University College, London, site of his swansong and of my own modest address to the conference of science schoolteachers. My subject was evolution, and the recent outbreak of American-style Young Earth Creationism in Emmanuel College, Gateshead. I offered an analogy which teachers might use to bring home to their pupils the true antiquity of the universe. If a history were written at a rate of one century per page, how thick would the book of the universe be? In the view of a Young Earth Creationist, the whole history of the universe, on this scale, would fit comfortably into a slender paperback. That would be the book of the Head of Science at Emmanuel, recently given a resounding vote of confidence by Ofsted, with the approval of the Prime Minister and the Minister of Education. And the scientific answer to the question? To accommodate all the volumes of the history of the universe on the same scale, you'd need a bookshelf ten miles long. That gives the order of magnitude of the yawning gap between science on the one hand, and the science teaching at the infamous Gateshead school on the other. This is not some dispute of scientific detail. It is the difference between a single paperback and a library of a million books. What would have offended Sanderson about the diet of falsehood now being fed to the children of Gateshead is not just that it is false but that it is petty, small-minded, parochial, unimaginative, unpoetic and downright boring compared to the staggering, mind-expanding truth.

After my talk, I stayed for lunch, and then was invited to join one of the separate break-out groups in the afternoon. Almost to a man and woman, the teachers were deeply worried about the A-level syllabus and the destructive effects of exam pressure on true education. One after another, the teachers came up to me to say that, much as they would like to, they didn't dare to do justice to evolution in their classes. This was not because of intimidation by fundamentalist parents (which would have been the reason in parts of America). It was simply because of the A level syllabus. Evolution gets only a tiny mention, and then only at the end of the A level course. This is preposterous for, as one of the teachers said to me, quoting the great Russian American biologist Theodosius Dobzhansky (incidentally a devout Christian, like Sanderson), “Nothing in biology makes sense except in the light of evolution.”

Without evolution, biology is a collection of miscellaneous facts. Before they learn to think in an evolutionary way, the facts that the children learn will just be facts, with no binding thread to hold them together, nothing to make them memorable or coherent. With evolution, a great light breaks through into the deepest recesses, into every corner, of the science of life. You understand not only what is, but why. How can you possibly teach biology unless you begin with evolution? Yet, time and again, I heard the same story. Teachers had wanted to introduce their pupils to life's central

theorem, evolution, only to be glottal-stopped dead in their tracks: "Is that on the syllabus? Will it come up in the exam?" Sadly, the teacher had to admit that the answer was no, and returned to the rote learning of enzymes, and 'relevant' Human Biology.

Sanderson would have hit the roof.

His spirit lived on at Oundle. His immediate successor, Kenneth Fisher was chairing a staff meeting when there was a timid knock on the door and a small boy came in: "Please, sir, there are Black Terns down by the river." "This can wait," said Fisher decisively to the assembled committee. He rose from the Chair, seized his binoculars from the door and cycled off in the company of the small ornithologist, and – one can't help imagining – with the benign, ruddy-faced ghost of Sanderson beaming in their wake. Now that's education – and to hell with your league table statistics, your fact-stuffed syllabuses and your childhood-destroying, endless roster of exams.

Sanderson's tradition that the whole school, not just the choir, even the tone deaf, should rehearse and bellow a part in the annual oratorio, also survived him, and has been widely imitated by other schools. Alas, his most famous innovation, the Week in Workshops (a full week for every boy in every term with all other work suspended) has not survived, but it was still going during my time in the fifties. It was later killed by exam pressure, of course, but a wonderfully Sandersonian phoenix has risen from its ashes. The boys, and now girls, cooperate out of school hours to build cars, to a special Oundle design. They don't just assemble a kit, with parts supplied from elsewhere. So far as possible all the parts are cast, by the young people, in the school's own foundry. They have cooperated to build more than thirty sports cars during the past five years, and they are now working on an aircraft. So, Mr Sanderson, dear soul, eighty years on you have your immortality, in the only way to which a man can reasonably aspire. The last word should be yours:

"I agree with Nietzsche that "The secret of a joyful life is to live dangerously." A joyful life is an active life -- it is not a dull static state of so-called happiness. Full of the burning fire of enthusiasm, anarchic, revolutionary, energetic, daemonic, Dionysian, filled to overflowing with the terrific urge to create -- such is the life of the man who risks safety and happiness for the sake of growth and happiness.

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