Trinity College Cambridge

COMMEMORATION OF BENEFACTORS

Trinity College Chapel

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THE PAST OF THE FUTURE

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Isaac Newton said:

'If I have seen further it is by standing on the shoulders of Giants.'

He said that in a grudging tone of voice in a letter to Robert Hooke (5 February 1676). Newton and Hooke had a delightfully agonistic relationship. No love lost on either side. The Royal Society, in those early days, seems to have been a nest of very clever vipers.

Not so now, presumably. When people hear Newton's words out-of-context, they suppose that he was being uncharacteristically modest. He knew how much he owed to his predecessors, mathematicians and astronomers, some of whom were certainly giants.

But Newton, like Hooke, did not do modesty. Newton was echoing a hallowed medieval formula supposed to be a genuine expression of modesty (Bernard of Chartres *per* John of Salisbury). But he intended us to hear the *unmodest* spin he put on it. He, Newton, *had* seen further than any of his rivals, including Hooke. He, Newton, *was* a giant on whose shoulders other people would stand in the future.

And, of course, he was right. Newton forged an exceptionally important link in the glorious chain of mathematical and scientific creativity that would extend over the following centuries to the present day, a chain of mathematical and scientific creativity to which members of this College have contributed so much.

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In this College we are exceptionally conscious of the presence of the past. This evening we remember people who contributed materially to the College over the course of the seven hundred years of our collective existence, from the original dual foundation of The King's Hall in 1317/1337 and Michaelhouse in 1324.

It is right to remember our material benefactors. But we should also remember our intellectual benefactors. Newton achieved intellectual immortality in his bizarre existence on E Staircase of Great Court. And there are other intellectual immortals immortalised in marble in the wonderful ante-chapel of this Chapel.

Go and sit in the ante-chapel in the half-light of early evening. You may feel that you are in the presence of minds that are still thinking. The ante-chapel is a physical reminder of the fact that thought defeats time. Perhaps they talk to each other when we are not there.

Stand in Great Court after dinner. Look up at the Moon and the stars. The same Moon and stars that Newton and the other Trinity immortals saw, standing in the same place.

But immortality is not the exclusive privilege of those who are called immortals. We are all immortal. Every one of us is immortal. By our mere existence we have modified the natural universe. Each of us is a unique organisation of atoms and cells. Each one of us contains the whole history of the universe from its creation. And each one of us, through the mere living of our lives, modifies the whole future of the universe until the end of time.

And each of us is immortal in a second way. We human beings inhabit two worlds. We live in the natural world. But we also have a second habitat. We live in the *human* world, a world of which we are the sole creators.

We create the human world using the power of the amazing human brain, itself created by biological evolution – with some assistance, perhaps, from the hyper-intelligent design-work of an admirably self-effacing God.

The amazing human brain contains a fascinating ghost in its machine, the puzzling phenomenon that we call the *human mind* – human consciousness. Our second habitat is a universe of the mind – the world of the family, of interpersonal relations, of society and the economy, of intellectual life, of science and art and literature, and of Trinity College.

Trinity College exists only in our minds. Trinity College is metaphysical. Our minds make Trinity College into the thing that we know and love.

Each of us modifies the human-made *human world* at every moment of our lives. That is our second personal immortality. We leave the human world a different place from the human world into which we were born.

We are responsible for everything we do, in every moment of our lives, because everything that we do has an effect beyond ourselves and beyond now. In everything that we say and do, we change the world. So, at every moment, each of us is helping to make the future of our two universes, natural and human. A daunting responsibility.

In the future, people will live in the natural and human worlds that we have changed, for better and for worse. People in the future will think of us as their past. We are the past of the future.

On the walls of this chapel are long lists of the names of immortals of this College who lost their future as a result of war – a sad past of our more fortunate future.

A university is a factory processing ideas. We are metaphysical engineers. If we change ideas, we change the world.

And that leads us inexorably to another Trinity person, another spirit haunting the ante-chapel, another Trinity person who was certainly a giant.

I risk causing anguish to the querulous ghost of Isaac Newton, his mind still voyaging alone in the ante-chapel. (W. Wordsworth, *The Prelude*, Book III). But I am bound to say that our greatest alumnus, our greatest intellectual benefactor, is surely Francis Bacon.

Bacon changed the human mind. In so doing, he changed the human world.

I will pacify Newton's ghost by quoting the over-familiar and rather excessive epitaph that Alexander Pope wrote on Newton's death (1727).

'Nature and Nature's laws lay hid in night: God said, Let Newton be! and all was light.' If only. In his *Essay on Man* (1724), Pope called Francis Bacon 'the wisest, brightest and meanest of men' (*meanest*, in the light of certain unsavoury aspects of Bacon's life). But a close friend of Pope reported a conversation in which the poet also said:

'Lord Bacon was the greatest genius that England (or perhaps any other country) ever produced.' (Joseph Spence, Anecdotes, Observations etc. (1820), Part Four.)

Byron (*his* marble spirit exiled to the Wren Library) quoted Pope's conversational remark and added:

'Query, was Bacon a greater intellect than Newton?'
(Notes on Canto V of Don Juan, 1820.)

So now I will reveal the epitaph that Alexander Pope *would have written* had he been alive at the time of Bacon's death, 101 years before Newton's death.

'Man and Man's nature lay hid in night:
God said, Let Bacon be! and things were suddenly a good deal brighter.'

Bacon left Trinity in 1575. His time here had taught him to look sceptically at all inherited ideas. What he saw was that the future is a product of the past, but the future is also a product of *what we do with the past* in the present. The power of the human mind is the power to make a *better* world, with unlimited improvement in the *quality* of human life.

So Bacon is an apostle of futurism, a secular Saint Paul, re-directing the primary focus of human consciousness from the past towards the future.

He said that natural science, placed at last on a proper footing, would give us the power to transform the material world to our great benefit. He could not have imagined the fabulous flood of world-transforming things that science and engineering would produce.

But Bacon's futurism went much further. He said that we should resume the task left to us by the ancient Greeks – he called it: 'a total reconstruction of sciences, arts, and all human knowledge, raised upon proper foundations'. (Great Instauration (1620), Proem.)

A total renaissance, far beyond the partial renaissances of the 12^{th} and 15^{th} centuries.

Bacon's proposal became the rallying cry of the 18th-century Enlightenment and the intellectual triumphalism of the 19th century.

I will quote something from the Preface to the French Encyclopedia, a vast free-thinking intellectual enterprise of the 18th century which ignited the mental revolution that caused the modern world – an enterprise whose masters acknowledged their debt to Bacon.

'One is tempted to regard Bacon, that sublime genius, as the greatest, the most universal, the most eloquent of philosophers. Nothing human was foreign to him. Everything seemed to be within the grasp of this luminous and profound mind.'

(J. le R. D'Alembert, *Discours préliminaire*, in *Encyclopédie*, ou *Dictionnaire raisonné des sciences*, *des arts et des métiers* (1751-72) : trans. and much ed. for present purposes.)

And I will quote from one other person.

'To give to the human mind a direction which it shall retain for ages is the rare prerogative of a few imperial spirits. It cannot, therefore, be uninteresting to inquire what was the moral and intellectual constitution which enabled Bacon to exercise so vast an influence on the world.' (Essay on 'Lord Bacon', 1837.)

That is Thomas Macaulay, one inhabitant of our ante-chapel speaking about another, in an essay which contained an extended comparison between Bacon and Plato.

In that essay Macaulay misjudged Plato, as did Moore and Russell and Wittgenstein a century later (*brass plaques only* for them in the antechapel). A Fellow of this College preached here in this chapel in 1641, suggesting that Christianity should take account of the best ideas of the pagan philosophers, including Plato. (J. Sherman, *A Greek in the Temple.*)

But 17th-century Cambridge Platonism was for other Cambridge colleges. Platonism was not a Trinity thing, then or since. It is Aristotle who can feel at home in Trinity College.

Bacon re-energised the human mind. But even he could not have foreseen the manic obsession with the idea of *progress* that took possession of the human mind after 1750.

Progress: 'a pilgrimage to nowhere in particular.' (Lord Salisbury, *The Progress of the Radicals*, 1873.) Double-dyed conservatives do sometimes say something useful.

Newton and Bacon exemplify the responsibility that rests on each of us. We can choose what will be our own personal contribution to making a better human future.

That is the importance of education. Education increases the range of our personal possibilities for influencing the future. And *higher* education extends still further the range of our future-making possibilities.

And that is also the importance of the work of those of us who research and write. We extend the range of *society's* possibilities for making a *better* human future.

So what is it that we do, we foot-soldiers of the Baconian and Newtonian revolutions?

What do the *natural sciences* do? They study, as conscientiously as possible, *the natural world*, and the human being as part of the natural world. Mathematics has a double prestige – as a remarkable capacity of the human mind and as the necessary basis for so much of science and engineering.

What do the *humanities* do? The humanities study, as conscientiously as possible, *the human mind and the human world*, our other habitat – an intelligent world produced from molecules that are without intelligence (Plotinus (204-270 CE), *Ennead IV*).

The natural sciences and mathematics and engineering are intensely *cumulative* and intensely *progressive*. Their ideas *evolve* by *natural selection*. The fittest ideas survive. Their ideas are *applied socially* when they are useful.

The *humanities* progress, not by evolution, but by *involution* – to borrow a word from Henry Drummond (*The Ascent of Man*, 1894) and by *implication* – to borrow a word from David Bohm (*Wholeness and the Implicate Order*, 1980).

We humanists produce ever-increasing densities of ideas, ever-new coherences of existing ideas. A new coherence of ideas changes the world. Humanists are alchemists of the mind. We listen to what science says, but we have other horizons.

No idea in the humanities is ever wrong. It may be based on a mistake of fact. It may be stupid, irrational, evil, impractical. But you can never know when an idea might turn out to be useful, if only in *causing other ideas* dialectically, through disagreement.

Every thought that has been thought over thousands of years, and has been put into a permanent form, survives to this day. Thought cannot be unthought. Every thought already thought can always be re-thought.

Humanistic ideas are *applied* as and when they are needed by other thinkers or by society. Our national identity, our constitutional systems, our law, our institutions, all our values come from past humanistic thought. Our societies are exotic fruits of past thinking.

Consider the case of Edward Coke. Another significant Trinity person. A near contemporary of Bacon at Trinity. Bacon v. Coke. Another Jacobean sparring-match.

Coke married the lady whom Bacon had wanted to marry. On his death, Coke's widow said of him: 'We shall never see his like again – praises be to God.' Not a nice person, perhaps. But Coke's ideas live on in all democratic constitutionalism across the world to this day.

The ideas of Plato and Aristotle and Locke and Marx and Nietzsche, and countless others, saturate society to this day, whether or not we have read a single word that they wrote.

(John Locke – supplier of crucial ideas to the ideal of liberal democracy – came close to being a Trinity person. John Dryden was his contemporary at Westminster School. He took a closed scholarship to Trinity. Locke took a Westminster scholarship to Christ Church. Had Locke come here instead of Dryden, we would have had as alumni Bacon, Newton and Locke, the three people whom Thomas Jefferson called 'my trinity of the three greatest men the world [has] ever produced'. Letter to Benjamin Rush, 16 January 1811.)

And the humanities study literature in all languages, and the work of the fine arts and music, universal and timeless human creations. We join in the efforts of the human imagination to unravel the tangled texture of human life and to explore our relation to the sensual world, our first habitat, and our relation to a putative world beyond all our worlds.

In the silent symposium in the ante-chapel, there are three other seated figures whose voices we want to hear, discussing all these things — Whewell (tough-minded polymath); Tennyson (most human of poets); and Barrow (mathematician and enlightened theologian).

I will end on a personal note. The research-and-writing side of my academic life has been devoted to changing the fundamental ideas that explain the *international world*. In their traditional form, those fundamental ideas imagine a *horizontal* relationship of so-called states as quasi-persons, with a will and interests that they defend through diplomacy and war.

For forty years, I have been extending our best ideas of social co-existence at the national level to the international level *mutatis mutandis*.

I propose a *vertical* model of the human world as an inclusive social form, extending from the family up to the whole of humanity, pursuing the common interest of us all, not merely the self-interest of states – horizontal at all levels, not merely at the level of the state.

You may think that my project is a rather *optimistic* project, given the state of the international world this very evening, which is remarkably similar to the state of the international world a century ago, and in countless centuries before that.

I should say that I have also long since predicted a new Renaissance and a new Enlightenment in the 21st century, when the world will be flooded with new and better ideas.

A rather *daring* prediction, you may think, given that the human race, in the early 21st century, is descending into a form of *mental poverty* that may be even harder to correct than the *material poverty* that has afflicted most human beings for most of human history.

Terrible legacy of the *nihilism* of the 20th century. Dead minds in dead souls.

Global consciousness has not so far succumbed to my future-changing wiles. So far.

But I take heart from the precedent of Rousseau. Voltaire and Hume thought Rousseau's ideas were crazy. But, when the French Revolution came, ideas from Rousseau's Kuhnian mental revolution suddenly became necessary ideas.

And Rousseau's ideas are part of the *ideal constitution* of liberal democratic societies today. And such ideas may or may not be present in the future of China. China's future is now an important part of our future.

Society appropriates the ideas that it needs when it needs them. A society cannot be better than its best ideas. Like Bacon and Newton, we can be beneficiaries of intellectual benefactors in the past and benefactors of intellectual beneficiaries in the future.

And now the world is changing dramatically and fundamentally. Especially in the face of something that people call *globalisation*, reality is crying out for new human values, new and better ideas about social systems of every kind, new and better ideas about democracy and capitalism and religion.

I see, or imagine that I see, reality converging asymptotically with what I have been saying for so long. Will the human mind re-enlighten itself in the 21st century?

The future will give its verdict, after I am dead and gone.

We make the future. We are the future's past. The future is our judge.