

Trinity College Chapel, Michaelmas 2009  
"God and some Fellows of Trinity"  
22 November 2009: "Adam Sedgwick"

## **ADAM SEDGWICK**

**Martin Rudwick**

As you came through the ante-chapel this evening, you may have walked over the black marble slab which is the College's memorial to Adam Sedgwick. With a very Trinity sense of what's important, all it records about his career is that for 17 years in the mid-19th century he was Vice-Master. It doesn't mention that he was also professor of geology in the university for more than 50 years, and one of the most prominent Cambridge scientists of his generation. In fact his most enduring memorial is the Sedgwick Museum in Downing Street, the splendid Victorian pile that houses one of the world's finest research collections of fossils as well as being a great attraction for young dinomaniacs. Sedgwick's huge Victorian reputation might have survived better if he'd had the right politics at the right moment. But in the event it was William Whewell the Tory who was appointed Master of Trinity, and who therefore had the power, later, to order his friend Sedgwick the Whig to expel from the College his faithful companion Mrs Shindy (not his mistress but his dog).

If you ever visit Dent in the far west of Yorkshire you'll see another memorial to Sedgwick, the village's most famous son. It's a huge unshaped chunk of Shap granite: remarkably austere by the usual standards of Victorian taste. But it expressed the primordial quality of the man: blunt, direct, unpolished by genteel southern manners, a Yorkshireman to the core. And the choice of stone was appropriate for the Adam whom his friends called "the first of men", because at least at the start of Sedgwick's career granites had seemed to scientists to be as primordial in the history of the Earth as Adam was in the traditional history of mankind.

To mention the biblical Adam, in the context of our Victorian geologist Adam, almost inevitably brings to mind well-worn historical stereotypes: "Geology versus Genesis", "the conflict of Science with Religion" and so on. In fact it was only towards the end of Sedgwick's life that arguments of this kind became acrimonious. For Sedgwick and most of his contemporaries, what were much more important were the inner tensions they felt, as they tried to live their lives coherently and honestly, as both scientists and Christians. He himself exemplified what at the time was a prominent kind of figure: the scientist and FRS who was also a religious believer. It's at this point that his life may still have something to say to us.

"Sedgwick", commented one of his friends, "is one of those men who, if they ceased to

believe in God, would tell you so directly". But in an age when many intellectuals were racked by religious doubt, "Sedge", as he was known here in Trinity, remained deeply committed to his Christian faith. He was no great theologian, but nor was he a man of unthinking piety or merely conventional religious observance. On the contrary, the way he set out the case for religious faith in an age of science was immensely influential in the early Victorian world, far beyond Trinity and Cambridge.

In 1832 it was Sedgwick's turn to preach at the Commem service here in chapel a week before Christmas. Characteristically, he had put off writing his sermon until a few days before, probably because he preferred to spend his time among the rocks and fossils in his museum, or else out in the countryside on his horse Caliban, which he said was even uglier than himself. But the sermon was a sensation. It got a leader in the Times; some of the undergraduates petitioned him to publish it; and it went through four editions in three years. It's not difficult to see why, because Sedgwick had used this chapel as a launch pad for what became a long campaign for the reform of Cambridge teaching, and not least for giving the natural sciences a more prominent place (a project in which he collaborated to great effect with his friend Whewell).

In his sermon, Sedgwick didn't mention the huge technological potential of the sciences, because that was hardly yet apparent, at least not here in Cambridge. What concerned him far more was their value in the formation of intellectual character. Their study, he said, "is well suited to keep down a spirit of arrogance and intellectual pride"; instead, it ought to lead to "simplicity of character, humility, and love of truth". Here he certainly practised, or rather exemplified, what he preached. But equally certainly he was convinced that the simplicity and humility he admired were best grounded in a trusting belief in God. "Where wast thou, when I laid the foundations of the earth," God had demanded of Job; and Sedgwick commented that "before such an interrogator, we can only bow in humble adoration".

But that "humble adoration", Sedgwick believed, demanded of scientists the full use of their scientific talents. His own research, which took him every summer into the wilds of Wales or his beloved Lake District, aimed at understanding the vast history of the Earth that God had made. It was he who coined the name "Cambrian" for some of the oldest rocks then known, and the very oldest fossils; and "Cambrian" is still used by geologists today with its meaning almost unchanged.

By the 1830s the vast timescale of the Earth's history had long been accepted by scientists, including the many who, like Sedgwick, were deeply religious people. But the geologists' ideas were not yet so widely tolerated outside scientific circles, particularly here in England (in contrast to the rest of Europe). When the young and lively British Association for the Advancement of Science met in York, the then Dean of York accused the scientists invading his city of undermining religious belief. But Sedgwick publicly demolished him so effectively that the Dean was reduced to publishing a pamphlet entitled "The Bible defended against the British Association".

Obviously Sedgwick was no fundamentalist, no intellectual ancestor of modern American creationists. For him the history of the Earth was no brief chronicle starting in October 4004 BC, but rather a grand and awe-inspiring story of events that dwarfed the totality of human history, in a way that was quite literally unimaginable.

Yet Sedgwick wanted no cheap victory over those whose imaginations were more traditional. A Dean of York could well look after himself; but when Sedgwick had a less sophisticated audience he was acutely aware of his pastoral responsibilities as a Christian intellectual. Preparing some lectures for a popular audience in Norwich, where he was a part-time canon at the cathedral, he told a friend that "Geology introduces some tender topics which require delicate handling". But he added immediately, "I must speak truth, but by all means avoid offence if I can". He wanted to convince ordinary religious people that they could welcome the latest findings of scientists like himself, without abandoning what was religiously valid and valuable in their traditional understanding. The seven days of creation in Genesis could no longer be regarded as literal days; but that didn't alter the religious significance of the story, as a poetic image of a world brought into being - and sustained in being - by God, who at every stage (as our first reading reminded us) "saw that it was good".

But how was this vision of the world as God's world to be sustained, if the progress of the sciences was bringing more and more phenomena into the realm of purely natural explanation? Like other thinking Christians in his day - and ours - Sedgwick had to steer a course between opposite shoals. On one side were the religious fundamentalists, who, supposedly in the name of the bible, rejected the scientific enterprise out of hand, and who insisted (to quote that Dean of York) that each "magnificent era" of the geologists "was really and truly but one vulgar day". But there was an equal danger on the other side, from those who can fairly be called atheistic fundamentalists - more strident in our day than in Sedgwick's - who rejected even the possibility of God with equally intolerant and dogmatic certainty.

Sedgwick was alarmed that some of his colleagues here in Trinity seemed to be moving towards that kind of scepticism, by denying that the natural world gave any clues at all to the reality of God. He rejected what he called that "cold and unnatural conclusion", precisely for its coldness and narrow rationality. As we heard in our second reading, he believed the natural world signalled the presence of God "by addressing the imagination" as well as "by informing the reason". "It speaks to our imaginative and poetic feelings," he insisted, "and they are as much a part of ourselves as our limbs and our organs of sense". And this was where Sedgwick believed his beloved science of geology would find its ultimate significance: "it tells us that God has not created the world and left it to itself, remaining ever after a quiescent spectator of his own work". This was the "one main point", as he called it, to which all his scientific work was ultimately directed: the world of nature disclosed a caring God.

But Sedgwick and his scientific contemporaries knew that that image of the natural

world was threatened, above all by those who were claiming that the human species itself had been "called into being", as he put it, not "by a provident contriving power [but] by a transmutation of species". This idea, later to be called evolution, was rejected by Sedgwick as "a theory no better than a phrensied dream". He rejected it with passionate vehemence because it seemed to him to eliminate the caring God of nature, and because it would reduce human beings to the animal level, and so deny their capacity to know God and to respond to God in love.

On Christmas eve 1859, more than a quarter-century after his famous Trinity sermon and exactly a century and a half ago next month, the 74-year-old Sedgwick was sitting in his rooms on C Great Court, writing to thank a former student for sending him a copy of a newly published book. "I have read your book with more pain than pleasure", he wrote. "Parts of it I admired greatly, parts I laughed at till my sides were almost sore; other parts I read with absolute sorrow, because I think them utterly false and grievously mischievous. You have *deserted* . . . the true method of induction, and started off in machinery as wild, I think, as Bishop Wilkins's locomotive that was to sail with us to the moon".

The former student (as you may have guessed) was Charles Darwin, the book was *On the Origin of Species*, and the science-fiction space vehicle was natural selection. Sedgwick's words may sound extreme to our ears; yet his letter was written, as he told Darwin, "in a spirit of brotherly love [and by] a son of a monkey and an old friend of yours". But their long friendship could not gloss over Sedgwick's dismay at what his younger colleague had done. For unlike many earlier speculations about evolution, this one came from a pillar of the scientific establishment, from a man who had started his career - with decisive help from Sedgwick - as a respected geologist. Darwin's book was not unexpected; but Sedgwick recognised it at once as an intellectual earthquake, which would shake the foundations of his own world-view. He knew it was bound to undermine the plausibility of the way he interpreted the long-term history of the Earth and of life. Viewed from Darwin's perspective, that history could no longer be regarded *unproblematically* as a disclosure of God's continuing loving care for his world. The perennial problems of suffering and death, perhaps even of evil, now had cosmic dimensions beyond the petty timescale of human existence.

This realisation contributed, I think, as much to the sadness of Sedgwick's old age as his increasing infirmities, or even the gradual loss of his friends and contemporaries, as he outlived almost all of them. Like many religious people before him and since, he saw one of his most treasured images of God crumble into implausibility. Yet even in that sadness the desolation was not absolute. As we heard in the reading from his sermon, his confident language about the "proofs" of God from the sciences had been tempered by the recognition that the "religion of nature" was ultimately no more than a suggestive pointer, a signal to our imagination more than to our reason; and he had conceded that its light seemed to fade away just where our need for light was greatest. "But here", he had added, "our heavenly Father deserts us not; he lights a new lamp

for our feet, and places a staff in our hands, on which we may lean securely 'through the valley of the shadow of death'".

Forty years after Sedgwick gave that great sermon, as he faced that valley for himself, those older and more traditional images of God - images that had nourished him throughout his life - proved not to have crumbled. He found he did have a staff in his hand, a lamp even, which he believed to come from beyond his own resources. On his last Advent Sunday he wrote to his favourite niece, "I must now prepare for my sacrament, my oath of loyalty to the banner of the Cross. . . May God give us grace to accept his offers of love and help in every hour of need". It's fashionable nowadays to dismiss as morbid the Victorians' apparent obsession with death; but perhaps they made better sense of it, and knew more about dying well, than we do in our modern furtive embarrassments.

Beyond the crumbling of other images of God - even those he had spent his life constructing devotedly in the spirit of scientific truth - beyond those images that were losing their plausibility, Sedgwick found there were deeper resources that he could draw on. These resources nourished his imagination, not because they were old but because they were well-trying. They were resources of imagery made available to him by a tradition of practice sustained through the centuries by men and women who have tried, as he did, to live their lives within the compassion of God. For Adam Sedgwick, "the first of men", that compassion proved in the end to be only dimly discernible in the world of nature. In the end, at his end, he found it more clearly visible in the one whom the New Testament writers had called "the second Adam", the focus of the second creation story in our first reading: the *Logos* of God, the Word made flesh, who had promised to be with him through his valleys of suffering and even death, and who had offered to bring him to his full humanity within the being of God.

And so, as we reflect on the life of Adam Sedgwick, I think he might have wanted me to use a conventional ending that in his case has more than merely conventional force: Thanks be to God.

A reading from Adam Sedgwick's "Discourse on the Studies of the University", 1833

What are the laws of nature but the manifestations of [God's] wisdom? What are material actions but the manifestations of his power? Indications of his wisdom and his power co-exist with every portion of the universe. They are seen in the great luminaries of heaven - they are seen in the dead matter whereon we trample - they are found in all parts of space, remote as well as near . . .

Contemplations such as these lift the soul to a perception of some of the attributes of God; imperfect it may be, but suited to the condition of our being. . . The external world proves to us the being of a God in two ways; by addressing the imagination, and by informing the reason. It speaks to our imaginative and poetic feelings, and they are as much a part of ourselves as our limbs and our organs of sense. . .

By the discoveries of a new science . . . we learn that the manifestations of God's power on the earth have not been limited to the few thousand years of man's existence. The Geologist . . . sees a long succession of monuments each of which may have required a thousand ages for its elaboration. . . He finds strange and unlooked-for changes in the forms and fashions of organic life during each of the long periods he thus contemplates. . . [Geology] tells us that God has not created the world and left it to itself, remaining ever after a quiescent spectator of his own work: . . . and thus affords a proof, peculiarly its own, that the great first cause continues a provident and active intelligence. . .

This is the true end to which the religion of nature points. Her light may be but dim, and beyond the point to which she leads us there may be . . . a cold and dismal region, where our eyes behold none but the appalling forms of nature's dissolution: but here our heavenly Father deserts us not; he lights a new lamp for our feet, and places a staff in our hands, on which we may lean securely "through the valley of the shadow of death", and reach and dwell in a land where death and darkness have heard the doom of everlasting banishment.