

Darwin and Christian Faith

Dr Paul Marston

Dr Paul Marston is a Senior Lecturer at the University of Central Lancashire, where his teaching includes a course on “The Darwinian Revolution” focusing on Charles Darwin and his theories. His PhD focused on Adam Sedgwick, professor of geology and an early Darwin mentor. Paul is also a longstanding evangelical Christian, a lay minister in the evangelical Free Methodist Church, and author of various books including *God and the Family*, and (with Ichthus leader Roger Forster) the currently in print *Reason, Science and Faith*, and *God's Strateav in Human Historv* (both Winf and Stock).

Introduction

This is an essay about Charles Robert Darwin (1809-1882). He is a man about whom vast amounts (of very varying quality) have been published. There are some good detailed biographies of Darwin,¹ and this will not attempt to parallel them. Rather it seeks to sketch some of the scientific and religious backgrounds against which Darwin came, and to explore his own changing views on religion (including his oft reputed “death-bed conversion”).

Various sections will deal with useful background (scientific and religious) against which Darwin must be seen. His own scientific and personal development will be very sketchily dealt with, and the focus kept on his religious development.

Geology and Timescales

Scientific Development

Our first task will be to outline the history of the development of geology, and assess Christian reactions to it. After this we will return to consider alternative models suggested today to fit what happened.

There were ancient questions about fossils and strata. Fossils had been known for a long time (eg Xenophanes (c570-480BC), Avicienna (980-1037) etc. - but there was no obvious means to tell that they were organic in origin. (To earlier ages in fact the word 'fossil' meant anything dug up). It is not obvious that a fossil differs in kind from a mineral vein or crystal. There is no obvious reason: (i) why or how organisms should turn to stone (ii) how they could become buried in solid rock (iii) why fossils like shells should be found up mountains (though some, after Tertullian, suggested Noah's flood).

Ussher's famous date of 4004BC in 1650 was more recent than earlier commentators (who put it around 6000 or so BC), but there was no evidence to contradict such a view in 1650, and Isaac Newton was one of many interested in such Scripturally based chronologies. There was no clash with science on this, because there was no obvious way for science to date the origins.

Earth science based on observation basically dates from the mid seventeenth century.² We might distinguish three main important areas of actual field-work:

- i. Structure (i.e. recognition that strata had a structure).

¹ Those by Moore and Desmond, Browne and Bowler are perhaps the best to date.

² Porter (1977) p. 10.

- ii. Composition (i.e. mineralogy, what the rocks were made of).
- iii. Fossils (in the modern sense of living remains turned to stone).

On structure, Steno (1631-1686), who later entered holy orders, was one of the first to suggest study of strata on the obvious presupposition that they indicated an order of deposition.

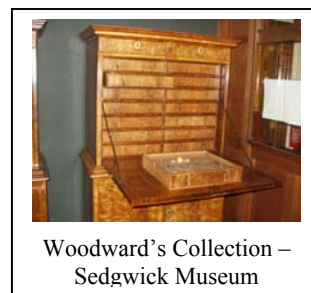
In the systematic study of the structure of mineralogy and rock composition John Woodward (1665-1728) founded a system that, though not profound, makes Porter describe him as ‘remarkable’ and ‘prophetic’ in pointing the way forward.³

Fossils had long puzzled observers. Some looked like living creatures, others didn’t, and opinions on their origins varied. Woodward began a useful collection of fossils and minerals, still intact in Cambridge. At that time there was no obvious reason why living creatures should ‘turn to stone’, and no obvious reason why fossils should not (like minerals and crystals) be chemical products of the rocks themselves.⁴ Nevertheless, the consensus view by the early eighteenth century was that fossils were the remains of once living creatures.⁵

Naturalists at that time also faced the wider problem of constructing a theory to explain how strata formed, why fossils were found on tops of mountains and how (since they were all Christians of varying orthodoxy and piety) this fitted Genesis. It should, however, be noted that they all generally took a Baconian approach, not tailoring nature to the Scriptures, nor feeling any great theological pressure to do so, but simply developing their theology and science together in seeking an ultimate unity of knowledge.⁶ Though, of course, individuals sometimes failed in the application of this approach to which they were committed, science ‘confirmed’ Scripture but did not begin from it.⁷

One suggestion was that most of the earth’s surface structure was laid down during the one Noarchic flood. Two Cambridge scholars on what Porter describes as ‘on the liberal and rationalistic wing’ of the church put forward such theories.⁸ Both Burnet’s (1681) and Whiston’s (1696) theories proposed non-supernatural mechanisms, though neither were practical naturalists. Theologically, Whiston was unorthodox, whilst Burnet took Genesis very allegorically. They found few followers scientific or theological.

A third ‘flood-geology, was that of Woodward, *An Essay Towards a Natural Theory of the Earth* (1693). Woodward suggested that in the flood the stone, minerals, chalk etc ‘lost their solidity’ and were ‘sustained in the water’, eventually resettling in the order of different specific gravity’. Contemporary Christian naturalists like the pious Ray, Lhwyd, Nicholson, Baker, etc, found this to make neither scientific nor theological sense. They pointed out that neither the strata nor fossils are in order of specific gravity, it would have required far more water than the Bible implied, the shells would also have dissolved (leaving no fossils) etc.⁹ Woodward was forced to introduce supernatural miracles supposing that normal gravity was suspended etc. This (though modern ‘flood geologists’ usually resort to similar stratagems) all rather defeats the original



Woodward’s Collection –
Sedgwick Museum

³ Porter (1977) p. 56.

⁴ Davis A Young (1982). p. 28.

⁵ Porter (1977) p. 166.

⁶ Porter (1977) p. 64.

⁷ Porter (1977) p. 70.

⁸ Porter (1977) p. 70.

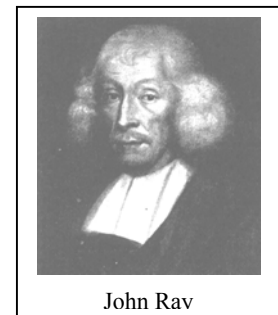
⁹ Baker to Woodward on 15th April 1700 (Camb MS no 35); John Edwards to Woodward on 4th February 1697; Ray to Lhwyd on 8th June 1696.

object of constructing a scientific theory of the flood - given enough miracle *any* theory can be made compatible with observation.

More biblically minded critics also pointed out that the Bible referred to the same rivers before and after the flood, that the curse dated from the fall of Adam and not the flood, and that the Bible implied a longer period than the 14 days in May suggested by Woodward to account for fossil leaves.¹⁰ Woodward was a pioneer in observational geology, but his actual system was scientifically impossible and biblically unsound.

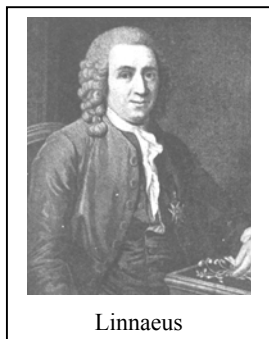
There was also another important model which gained some support, due to Robert Hooke (1635-1703). Though Hooke believed in the Bible and the widespread effects of Noah's flood, he believed that marine fossils were found on mountains because the earth's surface was in a constant cycle of uplift and fall - a series of catastrophic earthquakes over a long period of earth history. His system prefigured the later one of Hutton (whom some have suggested knew of it) and also some ideas of William Smith.¹¹

It should actually be noted that in general (and Woodward was an exception) 'most theorists were not field-workers, and most field-workers did not write theories'.¹² Field workers - like Ray and Lhwyd, were all too aware of the shortcomings of theories. Davis Young rightly portrays how Ray puzzled about how to construct one.¹³ Earthquakes might raise sea floors - but not to the extent needed for mountains. A single flood of short duration could not account for distributions of rocks and fossils without great ad hoc introductions of miracle. Thus, though most naturalists suspected that a worldwide flood might have something to do with fossils on mountains, ideas (like Woodward's) that all the Strata were laid down in one universal flood were never part either of scientific or of Christian orthodoxy. Men like Hooke, Ray and Lhwyd believed no less in the flood than Woodward, but could not believe it the sole agent for laying down the strata.



John Ray

In the eighteenth century, the most important figure in biology was probably Carl Linné or



Linnaeus

Linnaeus, the man who adapted Ray's system of organic classification into the one which is still used today. Linnaeus like Ray, specifically rejected the possibility that all the fossils could have been laid down in the Genesis Flood.¹⁴ Such, in fact, was the effect of accumulating evidence that one modern study states that by 1750 Woodward's theories: 'were so undermined that they could no longer be accepted, even by those geologists who emphasised the flood's role.'¹⁵ One of the few prominent 18th century 'flood geology' naturalists was Alexander Catcott, who held a tense mixture of Woodwardian and Hutchinsonian ideas.¹⁶ Hutchinson rejected Woodward as insufficiently 'literalist', and Hutchinsonians continued as a minority (much as modern young-earth creationists). They were never, however, regarded as mainstream or orthodox. John Wesley, for example, was himself interested in 'scientific' literature and encouraged

¹⁰ *Ibid* p. 23.

¹¹ See Yushi Ito (1988). Like later writers, Hooke's belief in an ancient earth was based on strata thickness. Ellen T Drake (1981) suggests Hutton was aware of Hooke's writings

¹² Porter (1977) p. 24.

¹³ Young (1982) p. 30.

¹⁴ J Ray *Reflections on the Study of Nature* Tr Smith 1786.

¹⁵ R Rhappaport (1978).

¹⁶ M Neve and R Porter (1977).

his preachers to be. He read (with them) various books on Hutchinson's system, and his growing criticism culminated by 1758 in saying: 'I am more and more convinced that they have no foundation in Scripture or sound reason.'¹⁷

By the late eighteenth century *all* schools of geology had concluded that the world was much older than previously thought. There were, however, two major areas of controversy:

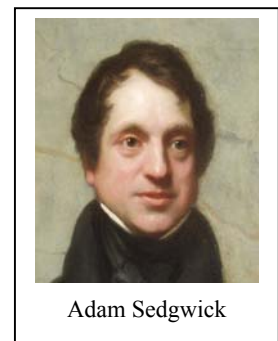
1. *Aqueous vs Igneous*: 'Neptunism' held that virtually all rocks had been laid down by the agency of water, except relatively recent volcanic rock. 'Vulcanism', held that a number of rocks (e.g. basalt, granite) were formed from molten lava - ie were igneous in origin.
2. *Progressivism vs Steady State*: This concerned whether the process showed a beginning ('primitive' rocks which contained no fossils), or was simply endlessly cycling with no trace of any beginning.

Neptunism was generally progressivist, vulcanism could be either. In these movements the figureheads (though not the founders) came to be Werner and Hutton. Hutton argued that even granite was igneous, and was a strong advocate of a 'steady state' theory. He did not necessarily reject catastrophes as part of geological history, but saw them as part of a steady-state system.

Hutton himself was deistical, but there was no lack of Christians (eg Rev. Playfair) amongst his most prominent supporters. His steady state system merely says there is no apparent trace of a beginning; God could, of course, have created the whole thing instantaneously as an ongoing system. It was never a simple issue of theological differences, and (though many were also interested in theology) the arguments were, with few exceptions, based on observational evidence.

In the early 19th century there were two further developments. The first was the recognition by English engineer William Smith, that particular strata could be systematically identified by their fossils. It should be noted that Smith's ideas began from the practical experience of work in mines, cuttings, and road surfaces (which were just bare rock and not covered). The flat strata around Bath where he lived showed fairly clearly how different fossils appeared at different layers. Smith was not a theoretician, and his approach was structural rather than thinking in terms of 'dating'.¹⁸ No particular 'theory' was assumed, and certainly no concept of evolution.

The written dissemination of Smith's idea owed much to the writings of Brongniart and Cuvier. Cuvier was a renowned French Protestant who experienced religious renewal. He also opposed and rejected the contemporary theories of evolution (due to Laplace) as unempirical. Cuvier also developed an influential idea (based mainly on data from around the Paris Basin) that there had been successive widespread floods. In England, William Buckland (a Dean who wrote about the design of God in creation and whose wife attended an evangelical church¹⁹) developed this into a notion of successive worldwide floods, of which the flood of Noah might be the last.²⁰ This form of 'catastrophism' (i.e. successive 'catastrophes') became popular. A leading advocate for it was the Cambridge Professor of Geology, Adam Sedgwick. Its leading opponent was probably the Scottish naturalist John Fleming, who rejected it (in favour of a tranquil flood) on both geological and biblical grounds.²¹ Both were



Adam Sedgwick

¹⁷ John Wesley, *Works*, 3rd Edition 1872 (1986 printing), II, p 454; see also p 388, 389, and 441.

¹⁸ See also, Hugh Torrens (1988) pp. 83-93.

¹⁹ E O Gordon (Ed) (1894), p. 111.

²⁰ W Buckland (1823).

²¹ See Paul Marston (1984) p. 396.

highly competent scientists. Theologically, Sedgwick identified his views with those of Charles Simeon - acknowledged as one of the foremost evangelical leaders of his generation²² - whilst Fleming was part of the evangelical revival which split the Church of Scotland. On *both* sides of the debate, then, leading protagonists were firm Evangelicals.

The standard 1820's geology textbook was co-authored by W D Conybeare (whose 1839 book on the Christian Fathers shows a highly orthodox theology) and Phillips (who held to the orthodox 'gap theory' of Genesis).

Of the first three decades, then, of the nineteenth century, we can make the following clear generalisations:

1. No serious geologist believed the world 6000 or so years old, or that the strata were laid down in one big flood.
2. No school of geology or leading geologist assumed or even believed in organic evolution - although the idea had been put forward both in Britain and in France.
3. Christians (including Evangelicals) were prominent in the development and dissemination of the ideas of geology.
4. Their ideas developed not because of some anti-Christian agenda, but simply because of what they saw in the rocks.

By around 1830 various controversies had become settled amongst serious geologists:

- A. Neptunism had been right in believing the rocks to show a one-way history rather than an endless cycle (as Hutton had thought)..
- B. Neptunism had been wrong in supposing that mineral type indicated age of rock - granite, for example, was fossil-free not because it was 'primitive, (ie before organic creation), but because it was igneous (ie solidified from molten rock, which could be of any period).
- C. Neptunism had been wrong, and Vulcanism right, in the igneous origin of basalt, granite etc, and igneous rocks played a major part in earth history.
- D. The association of fossil type with age was accepted.
- E. The successive worldwide flood theories were abandoned, and Fleming's slow processes were accepted.

Sedgwick's own field work, for example, led him to a public admission in a Presidential Address to the Geological Society in 1831 that his former views on (B) and (C) had been wrong. Dean Buckland, Reader in Geology at Oxford, made the same admission in footnotes in a work of natural theology of 1836.²³ These ideas were the basis of the work from 1830-1855 which saw the development of the geological column still accepted by geologists today.

We need at this point to mention the work and influence of Charles Lyell, a lawyer turned geologist about which more baloney has probably been written (by Christians and non-Christians) than any other figure in geological history. Lyell put forward two distinctive theories:

- i. 'Rate-uniformity': he assumed that rates of all processes had been constant, and actually tried to work out time spans based on it.²⁴
- ii. 'Steady-state': Lyell assumed that all the genera of animals had always existed in a steady cycle of species change - there was no 'progression' of animal forms.

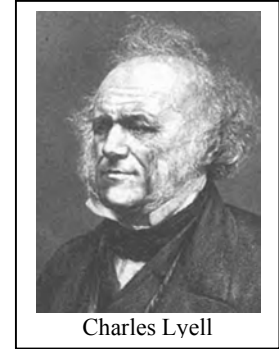
²²Marston (1984) section 2.3; the letter quoted by Evangelical Carus in *The Churchman* of February 1889 contains Sedgwick's reference to Simeon.

²³ W Buckland (1836).

²⁴ See M Rudwick (1977).

On (i), his sympathisers never numbered more than a small minority of geologists - the general view (well expressed by Sedgwick) was that it was a gratuitous assumption. Lyell's attempts at actual time spans were never accepted, and by the 1860's even he admitted it was hopeless.

Lyell's steady state theory fared even worse, he won no notable converts, and this has led Michael Bartholomew in his detailed studies to call Lyell a 'singular figure'.²⁵ Lyell's famous *Principles of Geology* (1830-33) was a best selling introduction, but neither of his distinctive ideas convinced the geological world. What was more influential was its version of geological history - a version which was really propaganda. Porter calls it 'mythic history'²⁶ but it remains influential.



In *Reason, Science and Faith* we show in detail a number of other key points on Lyell:

1. Lyell was fairly theologically orthodox (though not naturally devout), and his *Principles* took an anti-evolution line because of his views on the specialness humankind.
2. Lyell was not especially important to the development of geology

Actually the Evangelical John Fleming had been leading an assault on Bucklandian catastrophism in 1825-6 when Lyell was still a catastrophist,²⁷ and Fleming was justifiably angry when Lyell later tried to claim the credit for its demise.²⁸ Fleming, Scrope and Prevost, were probably at least as influential as Lyell on professional geologists like Sedgwick. Sedgwick's own field observation was the *real* reason for his change of mind which occurred between 1827 and 1830 ie *before* Lyell's book was published.²⁹ In any event, what was distinctive in Lyell's system remained an oddity, and some modern evangelical geologists have doubted if even Lyell himself fully accepted it.³⁰ Lyell's excessive belief in constancy of rates was not accepted by the majority of those who established the geological column.

The geological column, then, was essentially completed by 1855 (later changes were merely verbal) - four years before Darwin published his *Origin of Species*, and three key points need to be made about this:

1. It did *not* assume evolution, and key geologists were vehemently anti-evolution.
2. It did *not* assume uniformity of process rates and most geologists were catastrophists.
3. It did *not* depend on a circular 'dating the rocks from the fossils and the fossils from the rocks'.

These three points are demonstrated in detail in our *Reason, Science and Faith*. On issues of methodology Adam Sedgwick (the most successful stratigraphic geologist of all time) is especially important. His method was a complex interaction of three dimensional stratigraphy checked against fossil horizons - no circularity was involved and at no stage in his long career did he accept evolution let alone assume it as part of his method.

Interpreting Genesis 1-3 in the Age of Geology

What was the effect on biblical interpretation of the various stages of development in geology that started in the last part of the seventeenth century?

²⁵ M Bartholomew (1980), M Rudwick (1972), A Hallam (1983). p 54, Peter J Bowler, (1976), p 5.

²⁶ R Porter (1976).

²⁷ See Hallam (1983) p. 46.

²⁸ Flemings letter to Sedgwick of 15th November 1831 is in the Cambridge Sedgwick collection.

²⁹ See Paul Marston (1984) section 7.3, especially p 415.

³⁰ R Van De Fliert (1978).

John Wesley, who died in 1791, could not really be blamed for still believing the world was 6,000 years old. It was really by about the start of the nineteenth century that geology had concluded (on empirical grounds) that the great thickness of strata indicated an ancient earth. During the period (say) 1819-1833 there was still one school of geology that believed that over long time periods there had been successive inundation's - the last could be identified with Noah's flood. That in turn was overthrown empirically by the early 1830's.

So how did Bible-believing Christian leaders react to this development of geology and the geologists in their midst? Four basic alternatives were on offer:

1. **A Flood Geology:** Put forward an alternative geology with all or most strata ascribed to one flood, so that a young earth (c 6000 years) can be kept.
2. **The Age-day View:** The 'days' were taken to be long time periods.
3. **The Gap theory:** That between Gen 1:1 and Gen 1:2 there was actually a long gap (into which dinosaurs etc could fit), then 'the earth *became* without form and void'. The rest of Genesis 1 describes its reconstitution.
4. **The Framework View:** Basically following Augustine & co in a belief that the 'days' are purely schematic.

The first of these was taken up in books by the so-called U.K. 'Scriptural Geologists' listed in Table 1 below.

Table 1: UK 'Scriptural Geologists'	
1822 1825	Granville Penn (1761-1844): <i>Comparative Estimate of Mineral and Mosaic Geologists (2 eds)</i>
1826	George Bugg (1769-1851) <i>Scriptural Geology (1826-7)</i>
1829	Andrew Ure (1778-1857) <i>A New System of Geology</i>
1833	Frederick Nolan (1784-1864) <i>Analogy of Revelation and Science Established</i>
1834	Henry Cole (1792?-1858) <i>Popular Geology Subversive of Divine Revelation</i>
1837	Thomas Gisbourne (1758-1846) <i>Considerations on Modern Theories of Geology</i>
1837	Samuel Best (1802-1873) <i>After Thoughts on Reading Dr Buckland's Bridgewater Treatise</i>
1833 1837	George Fairholme (1789-1846) <i>General View of the Geology of Scripture</i> <i>Mosaic Deluge</i>
1837	William Rhind (1797-1874) <i>Elements of Geology and Physical Geography</i>
1838	James Mellor Brown (1796-1867) <i>Reflection on Geology</i>
	John Murray (1786?-1851)

1838	<i>A Portrait of Geology</i>
	George Young (1777-1848)
1838	<i>Scriptural Geology</i>
	William Cockburn (1774?-1858)
-44	<i>Letters etc</i>
1849	<i>A New System of Geology</i>

When the *Geological Society* was founded in 1809, its emphasis was on empirical research rather than overall theory. As people realised in the 1820's and particularly in the 1830's that actually a geological consensus was now being reached, some reacted by rejecting it and looking for an alternative. Flood-geology was essentially a phenomenon of the 1830's, at a time when the full evidence for the new geological consensus could easily not be known by figures who were (as most of them were) slightly out of date with their mugged-up science.

But how did Evangelicals in the 1820's and 30's react? Support was given Scriptural Geology by the Calvinist editor of the weekly paper *The Record* - whose dour controversial tone was deeply distasteful to many Evangelicals.³¹ Its attitude was abhorred by major evangelical leaders like Simeon, Sumner and Henry Venn.³² Sumner himself, regarded by Toon as one of the few whose evangelical credentials were above reproach, castigated Ure without hesitation.³³ In any event, a modern study can state: 'the following of the Scriptural geologists, for all their vociferousness and the plenitude of their tracts, was small and consistently so.'³⁴ Mortensen, who is highly sympathetic to these 'Scriptural Geologists' in his recent PhD thesis, nevertheless shows how by 1850 (note: nearly a decade before Darwin published his book on evolution) *all* the major orthodox commentaries had abandoned any support for such schema.³⁵ Ronald Numbers' monumental book identifies only the *very* obscure Lord brothers as advocating flood geology in the U.S.A. after 1850 (Lord's magnum opus being in 1851).³⁶

Actually, my own PhD thesis (Sec 6.2) shows that, in the crucial 1820's and 1830's, mainstream geology was accepted by both Anglican and non-Anglican Evangelicalism, as well as the High Church – ie all those in the church who regarded the whole Bible as inspired. This point is important, for it seems not always to have been well understood even in some modern historical works.³⁷ In this period, the mouthpiece of the moderate evangelical Anglicanism of Simeon, Wilberforce, Sumner, and the so called 'Clapham' group central to British Evangelicalism, was the *Christian Observer*. Though it would print letters from 'Scriptural Geologists' (and even from the more extreme Hutchinsonians who rejected Newton), its editorial line consistently supported mainstream geology and the position of clerics like Conybeare and Sedgwick who were geologists. On the other hand it equally clearly rejected any suggestion (such as that made by Powell at Oxford) that the Bible might contain historical or scientific mistakes. Amongst Church of Scotland Evangelicals, key leaders like Thomas Chalmers, and geologist Hugh Miller, were equally clearly committed to the value of geology. Amongst leading non-Anglican (or 'Dissenter') Evangelicals, John Pye Smith wrote his book *On The Relation Between the Holy Scriptures and Some Parts of*

³¹ See G R Balleine (1908), p 163.

³² F K Brown(1961), p 129; A Ashwell (1880-2) p. 219; E Stock (1899-1916) 4, p. 60.

³³ See P Toon (1979) p. 4.

³⁴ J D Yule (1976), p 328.

³⁵ Mortenson (1996).

³⁶ Numbers (1992) p. 28.

³⁷ Eg Thackray & Morrell (1981) which exaggerates "broad church" influence and minimises the significant evangelical contribution in science.

Geological Science in 1839. His acceptance of mainstream geology was continuous (his correspondence with geologist John Phillips is extant in Oxford and we have read it) and a final version was issued just after his death in 1854.

The most common views amongst leading Evangelicals between 1815 and 1859 (when Darwin published his book) were the age-day and gap theory. The exact origins of these two views are hard to discover. The idea of the ‘days’ as millennia was very early in Christian and Jewish thinking (eg it is mentioned by Irenaeus), but there would have been no possibility to associate them with *geological* ages until geology reached this point in the eighteenth century. The age-day theory can actually be traced back to Buffon in *Epoques de la Nature* (1778), but was influentially revived by the Evangelical G S Faber in his *Genius and Object* (1823), and had its most illustrious pre-1859 geological advocate in Hugh Miller in his *The Testimony of the Rocks* (1857). Miller actually portrays the days as visionary or prophetic - but argues that they are also indicative (with some caveats) of time periods in history.

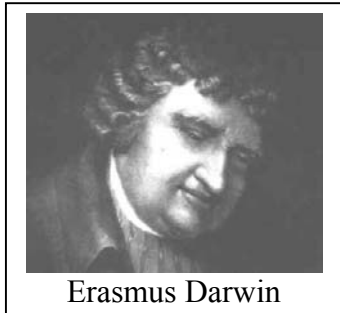
The gap-theory is traced by Ramm to some figures in the seventeenth century,³⁸ and work in progress by Michael Roberts may in due course produce further evidence of its early occurrence.³⁹ In the nineteenth century it owed its popularity to Chalmers in *The Evidence and Authority of the Christian Revelation* (1817), to John Pye Smith’s *On the Relation between the Holy Scriptures and Certain Parts of Geological Science* (1839) (and in later works like G H Pember’s *Earth’s Earliest Ages* (1876)). Influential geological advocates were Buckland in *Geology and Mineralogy Considered With Reference to Natural Theology* (1836) - supported by high church scholar Pusey. Amongst the evangelical geologists, in America Hitchcock supported it, and in Britain Sedgwick also tended towards it though later was more wary of committal.⁴⁰

Variants of the age-day and the gap-theory dominated Evangelicalism in the years before Darwin (though in *Reason, Science and Faith* we also look at ideas in J H Kurtz (1842) and P H Gosse (1857) which never caught on much).

A popular view is that when Darwin published *Origin of Species* in 1859 most Christians believed the world to be about 6000 years old. It is quite simply incorrect. Leaders of all branches of the church had long since abandoned any such view and it was not generally considered credible by then. What the ‘person in the street’ believed is harder to decide.

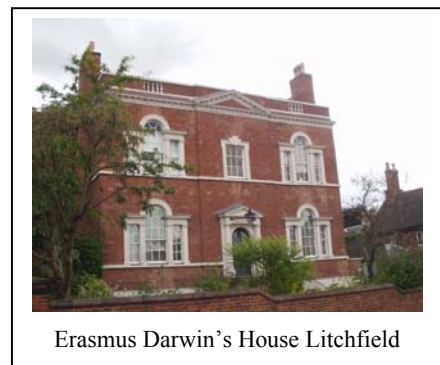
Evolution Before Darwin

(1) Romantic Evolutionary Deism



Erasmus Darwin

Erasmus Darwin (1731-1802) was born near Nottingham, went to Chesterfield school, then Cambridge University where he studied classics, mathematics and medicine. In 1756 he qualified as Doctor of Medicine from Edinburgh after two years study there. He moved to Litchfield where he lived for 25 years giving



Erasmus Darwin's House Litchfield

³⁸ B Ramm, *Op Cit* p 172.

³⁹ A paper was presented to the CiS conference in Autumn 1997.

⁴⁰ See Paul Marston, (1984) p 529 etc. Davis Young summarises such attempts at concord in (1992) p 55 etc and in (1987).

medicine free to the poor and for fat fees to rich. He became a very eminent Doctor and a friend of Wedgwood and Watt the new breed of inventors/industrialists. He influenced Shelley, Keats and Coleridge and was involved in scientific societies. His major works were *The Botanic Garden* (1789-91) *Zoonomia* (1794-6) *Phytologia* (1800) and *The Temple of Nature* (1803). A gargantuan man - large of appetite - he had 14 children (from two wives + 2 illegitimate). Socially and politically he was a revolutionary freethinker, Deistic in religion he admired the Unitarian Priestly. His view of mind was reductionist and materialist. He was Charles Darwin's grandfather, though died before Charles was born His system of evolution was romantic rather than empirical, it was fanciful and hypothetical, and was not generally regarded as at the forefront cutting edge of science in the early 19th century. Erasmus summarized his ideas:

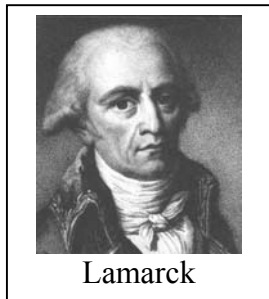


The Temple of Nature

Would it be too bold to imagine, that in the great length of rime, since the earth began to exist, perhaps millions of aged before the commencement of the history of mankind, would it be too bold to imagine, that all warm-blooded animals have arisen from one living filament, which the first great cause endowed with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions and associations; and thus possessing the faculty of continuing to improve by its own inherent activity, and of delivering down those improvements by generation to its posterity, world without end.

When I quote this in lectures I usually add “Amen” at the end – it sounds so much like a liturgy! This is not a science of mechanisms and empiricism, but a visionary deism.

(2) French Transformationism



Lamarck

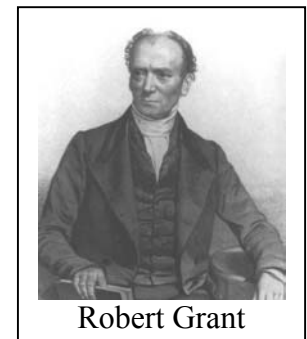
The founder of this school was Jean-Baptist de Monet Chevalier de Lamarck (1744-1829)

“Lamarckianism” was a system of evolution based on use and disuse of organs + interior forces. There was a kind of ingbuilt upwards movement in organic life. Other members of the school included Etienne Geoffroy St Hilaire (1772-1844). He applied term 'evolution' (applied to embryonic development) to the process of transformation From 1834 time his works began to be more mystical and vague - dominated by idea of unitary universe. From 1832-1837 Geoffroy's son Isodore produced work on monstrosity - seen as source of evolution.

(3) The British School

In the first half of the nineteenth century there developed at Edinburgh and then in University College London a school of comparative anatomy based on the French ideas (ie Lamarck/Geoffroy). This school was:

- * Politically radical - standing for the abolition of all privilege
- * Atheistic - often actively ridiculing the idea of God and design in nature
- * Materialistic - reducing mind to matter
- * Evolutionist - linking even invertebrates and vertebrates
- * “Disreputable” – largely marginalized as Richard Owen became dominant in anatomy.



Robert Grant

The Edinburgh group were involved in giving private tuition on a large scale because the official medical lecturers (as sometimes happens in complacent Ivy League institutions)

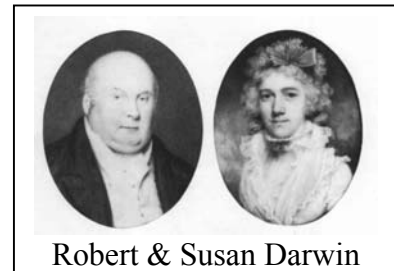
were out of date, boring, and uninspiring. A leading figure was Robert Knox (1793-1862), who in 1828-29 had 504 students in his “unofficial” private tuition group. In 1820 he came under suspicion (although later cleared) of involvement in the infamous Burke & Hare murders for cadavers, and in 1842 left for London where he experienced various failures to get an academic post. Publications in *Lancet* etc. Another key figure was Robert Grant (1793-1874) who in 1814 graduated as MD from Edinburgh

1815-1820 and had studied medicine and anatomy at continental universities eg Paris. Grant became a lecturer on invertebrate animals in Knox’s extramural anatomy school in 1824. Grant seems not to have flouted any transmutationist (ie evolutionary) views as much as the flamboyant Knox and there may be some doubt as to how far Grant held the evolutionary views in the earlier 1820’s⁴¹ or whether he really was the anonymous author of an article in Jameson’s journal in October 1826 which took a Lamarckian view. In any event, in 1827 he received recommendations from the fairly scientifically conservative John Barclay and Robert Jameson to obtain the post of Professor of Zoology Comparative Anatomy in the newly formed University College, London. He was also recommended by the conservative evangelical scientists John Fleming and David . In 1827, then, Grant became professor of comparative anatomy and zoology in University College London. A reserved person, Grant was seen as increasingly eccentric in his formality of dress as he lectured, and increasingly anachronistic and out of date in his approach. Loosely connected with this group was Robert Chambers (1802-1871) the son of cotton manufacturer who was a bookseller and publisher. In 1844 he wrote *Vestiges of the Natural History of Creation* anonymously - by 1860 it had sold over 60,000 in the UK, plus foreign edition. The book bore the marks of a self-taught person, and was slated by scientific critics from the evangelical Adam Sedgwick to the agnostic T H Huxley. Its position was basically materialist, though its evolutionary schema was deistic.

Outline of Darwin’s Life and Religion

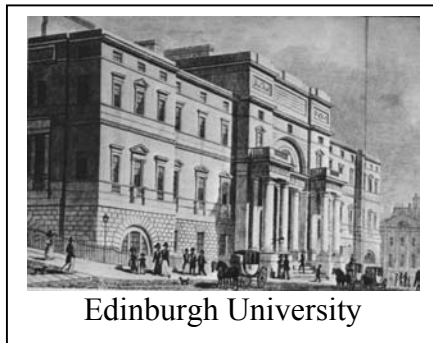
Charles Darwin 1809-1881

Erasmus Darwin’s son Robert Wareing Darwin was also an eminent doctor, and married a member of the Wedgwood family. Their son, Charles Darwin, was born in Shrewsbury in 1809. Robert Darwin had Darwin brought up like his devout mother as an Anglican (ie an Episcopalian or member of the Church of England) although his own freethinking views were more towards Unitarianism.



Robert & Susan Darwin

The Darwin’s were very affluent, and Charles had a good education (though was an average pupil).



Edinburgh University

In 1825 he went to Edinburgh University with the intention that he would follow the family medical tradition. The anatomy courses there were gruesome and boring, and he disliked and eventually abandoned medicine.⁴² He attended, however, courses by two of the leading British exponents of the two schools of geology in the 1820’s. One was Thomas Charles Hope’s chemistry lectures. Hope was not research-active but spent much money and time on his renowned flamboyant and visual lecture courses. Hope included geology and mineralogy, which his syllabus shows were treated from the Huttonian (vulcanist) viewpoint. The other course was given by Robert Jameson, covering zoology, botany,

⁴¹ Desmond and Moore seem to imply that he did, whilst Browne doubts whether they were more than half formed.

⁴² Browne (1995) describes this well.

paleontology, geology, mineralogy and “the philosophy of zoology”. both Jameson and the course, complete with field trips, were justly renowned. Charles found Jameson’s style very boring, but (in spite of his later statement that he abandoned it) he persevered as his notebooks show. Jameson was a Neptunist, and was also the one to introduce (and translate) Cuvier’s ideas of successive inundations. Jameson famously remarked to a Royal Commission in 1827:

It would be a misfortune if we all had the same way of thinking. Dr Hope is decidedly opposed to me, and I am opposed to Dr Hope, and between us we make the subject interesting.”⁴³

Darwin read both Jameson’s course *Text Manual of Mineralogy* (1821) and the 5th edition of his translation of Cuvier’s geological discourse *Essay on the Theory of the Earth* (1827). Darwin was reading other science books. He studied the evangelical John Fleming’s *Philosophy of Zoology* which took a vitalist rather than materialist view of living organisms, and bought and possibly read John Barclay’s *Treatise on Life and Organisation* (1822) which gave a similar view (though his actual notes in his own copy date from a later period). Barclay was critical of Erasmus Darwin and other evolutionists for a mechanical materialist view of animals.

In 1823 a student natural history society, the Plinian Society, had started, and Darwin joined this with enthusiasm. An important figure in this was graduate and tutor Robert Grant, who is reputed also to have sat in on Jameson’s lectures. Grant was in his early thirties, a very reserved bachelor who lectured in full evening dress (and indeed continued to wear frock coats to lecture long after no one else did!). Reports⁴⁴ show him as ostensibly melancholic and humourless, a kind of loner devoted to his subject with excessive zeal. Darwin remarked:

I knew him well. He was dry and formal in manner, but with much enthusiasm beneath his outer crust. In any event the young Charles became friendly with Grant and learned much on invertebrates through him in numerous field excursions. At some stage Charles had read and annotated his grandfather’s *Zoonomia* which he admits “I greatly admired at this time” - and it is hard to believe he did not discuss it with Grant.

On 27th March 1827 Darwin’s first proper scientific paper was delivered to the Plinian Society on an obscure marine invertebrate *Flustra*. This led to a cooling of relations with Grant, as Darwin’s daughter related some forty years later. Rushing to tell Grant of his discovery, he “was confounded on being told that it was very unfair of him to work at Prof G.s subject and in fact he would take it ill if my father published it.” Three days before Darwin’s “big moment” Grant read a notice on *Flustrae* to the senior *Wernerian Society* (which accepted only graduates) in which Darwin’s work was subsumed with little or no notice. Grant may have seen this as a Professorial programme (similar disputes have not been uncommon in the history of university science), and Darwin was probably not original. In any event, relationship with Grant cooled, and the evidence seems to be that Darwin did not embrace the older man’s transmutationism at this time.⁴⁵ Darwin’s religion during this time was formally Anglican. His private notes show, of course, that he was interested in materialism, he could hardly not be at Edinburgh at this time where it was in hot dispute. Darwin toyed with materialism in private notebooks – but seems not to have gone far into it.

He realized, however, that medicine was not for him, and it was decided that he would go to Cambridge. Oxford and Cambridge at that time were Anglican (ie Episcopalian or C of E) institutions and a degree gave the possible intention of entering the Anglican Ministry. In

⁴³ Cf Secord (1991) He later claimed he stopped going – but his notebook shows otherwise! See also Desmond & Moore (1991) p. 42.

⁴⁴ See Browne (1995) Ch. 3., Desmond & Moore (1991) ch 3.

⁴⁵ Browne certainly reaches this conclusion.

preparation, he read and appreciated the evangelical John Bird Sumner's⁴⁶ *Evidences of Christianity*.⁴⁷ He was delighted with the logic of William Paley's *Evidences for Christianity* when he read it as part of his Cambridge degree.⁴⁸ That degree was an ordinary BA, rather than the academic Mathematical Tripos, and he was not required to do a great deal of work. He spent much time with his cousin William Darwin Fox who was four years older and in his final year. Fox was gentle, unassuming, with a love of natural history curiosities and an intention of becoming a country parson. Living fairly indolently, the pair were both passionate beetle collectors, and Darwin an accomplished etymologist.

For some time devout Christians had been in the forefront of Cambridge science. The renaissance of Cambridge science was pioneered by ardent evangelical Isaac Milner (Jacksonian Professor 1783-92), and continued by his later successor the evangelical William Farish, a close friend of the doyen of evangelicals Charles Simeon. Edward Daniel Clarke, professor of Mineralogy in this period, was also a supporter of the Bible Society. Trinity Fellow Adam Sedgwick (who had attended Farish and Clarke's lectures) had become Woodwardian Professor of Geology in 1818, began annual lectures in 1819, and went on to become a key stratigraphic geologist. Trinity and John's colleges were central to the rise of Cambridge to a dominant position in British science. The great polymath William Whewell (1794-1866) who



Christ's College

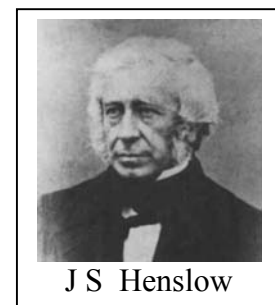


The magnificent St John's College - presumably Darwin "walked" here with Henslow

invented the word "scientist" in the early 1830's, became a Fellow of Trinity in 1817 and Prof of Mineralogy in 1828. In 1813 John Herschel (1792-1871) had passed out senior wrangler from neighbouring St John's College and become an FRS at the age of 21 – going on to win the Copley medal for mathematical papers by 1822 when he took over his father's telescopes and work. In 1826 George

Biddell Airy (1801-1892) became Lucasian professor, and in 1828 Plumian professor of astronomy. Others in the circle, like Joseph Romilly, John Stevens Henslow, Richard Sheepshanks, and George Peacock, also went on to scientific interest and honour. Sometimes dubbed "the Cambridge Network"⁴⁹, the brilliant group had great effect in science. The British Association for the Advancement of Science (BAAS) was founded in 1831 by a group in which these men were central. Thackray and Morrell started a fashion for calling this Cambridge Network "Broad Church"⁵⁰ – but this is misleading. They were not bigots, but their theology was generally conservative and moderately evangelical.

Darwin was greatly influenced by Professor John Stevens Henslow with whom he came to spend much time. Henslow had been a Professor of Mineralogy, and then of Botany, but was also at home in mathematics and



J S Henslow

⁴⁶ Sumner went on to become Archbishop, but was one of few on whom everyone agreed he was an Evangelical.

⁴⁷ Desmond & Moore (1991) p. 48.

⁴⁸ Desmond & Moore (1991) p. 78.

⁴⁹ A term in S F Cannon *Science in Culture* (1978) and A Thackray & J B Morell *Gentlemen of Science* (1981). These books wrongly label them as "Broad Churchmen" ie liberal in theology. Actually, there was a strong evangelical/conservative strain in their undoubted piety.

⁵⁰ Thackray and Morell (1981); Browne (1995) p. 120 unfortunately repeats this – it is examined and refuted comprehensively in my own PhD. Browne's description of Adam Sedgwick on whom my PhD centered) as a "liberal Anglican Priest" is nonsense.

theology.⁵¹ He was a knowledgeable scientist, did much to advance science in school curricula, and was also a devout Christian of whom Darwin himself remarked that he cared so much for the biblically based 39 articles of the Church of England that “he would be grieved if a single word... was altered.”⁵² Ironically, Darwin once rushed through to Henslow with a similar “eureka” moment he had been so disappointed with in Grant. Henslow, in contrast, was encouraging, showed no professional jealousy, and was easy for any young scientist to be with. Darwin adulated him – seeing him as the epitome of professional and personal perfection in a man.



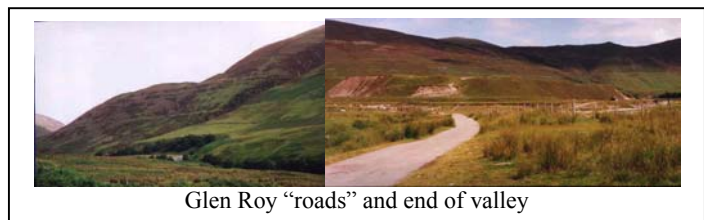
Christ's College First Court
Where Darwin Stayed

Though never himself devout, Darwin was fairly orthodox in his theological beliefs at this time. He later never wavered from the assertion that:

“As I did not then in the least doubt the strict and literal truth of every word in the Bible, I soon persuaded myself that our Creed must be folly accepted.”

This is, of course, hyperbole. These Anglican Dons believed that *all* the bible was inspired, but were certainly not “literalists” - any more than the mainstream of Christian teachers ever had been. Though, of course, the miracles and resurrection in the gospels were taken literally, Dons like Henslow and Sedgwick (or figures like Paley and prominent evangelicals like Sumner) were not “literalists” on Genesis 1-3 and ALL of them believed by this time that the world was very old. We have to be very careful of some of the material on this presented eg by Janet Browne, who does not seem to understand well the religious climate of the times nor the non-literality of the evangelical tradition. Darwin’s qualms as he thought about ordination were not about orthodoxy, but about whether he could really, when asked in the ordination service, claim that he had been “inwardly moved by the Holy Spirit” to ordination. To graduate, however, he had to make no such claim, but he *did* have to assent to the 39 articles of the Church of England, which certainly took the classic approach of the Christian church and held to the inspiration and authority of Scripture. Darwin did so without qualms.

Darwin left Cambridge in 1831, and completed his science education with a brief geological tour of Wales with leading geologist Professor Sedgwick in 1831.⁵³ So strong is the “Darwin myth” than in a new Channel 4 TV programme broadcast September 2002 “Origins”, Darwin was portrayed by Steve Jones (a geneticist wheeled in by TV companies when real historians of science won’t sing the tune they want!) as a radical advocate of glacial action facing contemporary prejudice in favour of bones being washed about by Noah’s flood. Though *years later* Darwin did, of course, see that those Welsh valleys had marks of glacial action, he was far from a trendsetter on glacial action. He continued to argue in the 1850’s that the parallel “roads” around Glen Roy were raised marine beaches long after the evidence of glacial causality was obvious, and in spite of obvious glacial remains at the valley head. To contemporaries, he was not “St Darwin the infallible” – but just another geologist (good but fallible). alongside others. A comparison of the journals of Darwin and



Glen Roy “roads” and end of valley

⁵¹ Secord (1991) also notes Henslow’s excellent previous work in geology.

⁵² Darwin’s *Autobiography* p. 65.

⁵³ Cf Desmond & Moore (1991), and Browne (1995) – who unfortunately repeats the old myths fostered by Thackeray and Morrell (1981) of a ‘broad church’ Cambridge Network.

Sedgwick on this trip shows just what one might expect. That of Sedgwick is professional, detailed, and technical – that of Darwin more speculative and less technical. He was a young inexperienced geologist completing his scientific education.⁵⁴

At the opposite extreme from the “St Darwin” approach of adulators, in some of the literature it has been suggested that Darwin was some kind of dilettante “amateur” in science in 1831.⁵⁵ This is also totally misleading. Actually, the terms “amateur” and “professional” in science have virtually no meaning in 19th century (or earlier)

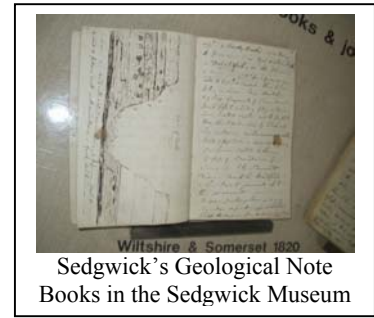
England. Professorships were not enough to maintain a middle class lifestyle, and holders were expected to either practice medicine or hold a church living (eg Sedgwick was a Canon) even to maintain a moderate bachelor lifestyle. There were no “science degrees” at Oxford or Cambridge (at least until 1851 – and these were for the less able!). There were, of course, those who were accepted/accredited as scientists and those who were not, but there was no “scientific career structure”. Figures like A R Wallace and T H Huxley – brilliant though they were – struggled to make enough to live on from their science. Figures like Charles Lyell and Charles Darwin were supported from private means – but were no more “amateurs” than (say) Robert Boyle or Isaac Newton. In 1831 Charles Darwin was one of the best-trained young naturalists in Europe. He had studied under Hope, Jameson, Grant, Henslow and Sedgwick – and had read a great deal more and done a lot of fieldwork on his own and under individual supervision. Darwin had also seen the radical change in geology between 1825-1831. The old Neptunist-Vulcanist controversy (still in Edinburgh) was falling away by 1831 when Sedgwick delivered his famous recantation. Darwin was about to launch on a geological “career” – and he did so under the new paradigms.

In religious terms, he had understood materialism, but had come out on the orthodox side. The men he adulated were not the Edinburgh materialists, but the devout Cambridge Dons – Henslow in particular – whose scientific and personal qualities he so admired. Darwin himself had felt no great inward calling to the ministry, but was fairly orthodox in his religious views. He was not a transmutationist (overt or crypto) and certainly did not go off on the HM S Beagle to look for evidence for evolution. His own evolutionary speculations began after his return from that trip, as we shall see, in 1836.

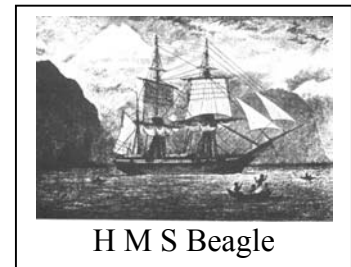
Charles Darwin 1831-1842

From 1831 to 1836 Darwin was on the HMS Beagle as a gentleman companion to the Captain Robert Fitzroy, and as an unofficial naturalist. We have noted that he had received a first rate training as a naturalist. He was unofficial because the official naturalist was a comparatively low-prestige post and Darwin was a gentleman – but he was not “amateur” in any sense we would think today.

He had been advised by Henslow to get and read Lyell’s newly published *Principles of Geology* but “on no account to accept the views therein advocated.” Henslow was, of course, was partly joking. Browne suggests that Henslow and Sedgwick objected to Lyell’s idiosyncratic “steady state” model on theological grounds – but she really does not understand the fundamental Baconian views of the Cambridge Dons who regarded such issues as to be settled by observation not theology. They were, of course, entirely right. Modern geology has emphatically



Sedgwick's Geological Note Books in the Sedgwick Museum



H M S Beagle

⁵⁴ This comparison was made in my PhD in 1984.

⁵⁵ This has some origins on Himmelfarb (1959), but is rampant in young-earth creationist literature.

rejected both Lyell's unidirectional model and his uniformitarian assumption that all the processes always went at the same pace. Both Sedgwick and Henslow valued the work as a general introduction to geology, but rejected its idiosyncracies. Darwin exaggerated his indebtedness to Lyell, but he did, on the journey, see evidences for the slow changes in land elevation over long periods of time. Darwin was fundamentally a geologist at this time, and specimens sent home were presented to the Geological Society by his mentors Henslow and Sedgwick. He achieved a geological reputation in his absence.

In Christian terms he remained orthodox:

Whilst on board the *Beagle* I was quite orthodox, and remember being heartily laughed at by several of the officers (though themselves orthodox) for quoting the Bible as an unanswerable authority on some point of morality. I suppose it was the novelty of the argument that amused thee. But I had gradually come by this time, ie 1836 to 1839, to see that the Old Testament was no more to be trusted than the sacred books of the Hindoos....By further reflecting... that the more we know of the the fixed laws of nature the more incredible do miracle become, - that the men of the time were ignorant and credulous to a degree almost incomprehensible to us,- that the Gospels cannot be proved to have been written simultaneously with the events,- that they differ in many important details///I gradually came to disbelieve in Christianity as a divine revelation.... But I was very unwilling to give up my belief; I feel sure of this, for I can well remember often and often inventing day-dreams of old letters between distinguished Romans... which confirmed in the most striking manner all that was written in the Gospels. But I found it more and more difficult, with free scope given to my imagination, to invent evidence which would suffice to convince me. Thus disbelief crept over me at a very slow rate but was at last complete. The rate was so slow that I felt no distress, and have never doubted even for a single second that my conclusion was correct. I can, indeed, hardly see how anyone ought to wish Christianity to be true; for if so the plain language of the text seems to show that men who do not believe, and this would include my Father, Brother and almost all my best friends, will be everlastingly punished. And this is a damnable doctrine.⁵⁶

After he came home in 1836 he began speculating on transmutation (evolution), whilst confirming his reputation as a geologist. It seems fairly clear that his belief in evolution, and invention of the ideas of natural selection, arose at this time and not before or during his voyage. He lived in Gower Street – near to Robert Grant whom he apparently never went to see.

Darwin was now (1838) speculating on materialist ideas. This is not just or even primarily about evolution. His notebooks around this time begin to reflect an essentially materialist and deterministic view of human beings. He was concluding that freewill was an illusion and the brain was mechanistic. He read Comte's *Positivist Philosophy* and moved away from the old Cambridge spiritual view of humankind. He read and agreed with the work of his brother's girl friend, Harriet Martineau, who held that "right" and "wrong" are culturally conditioned, not spiritual endowments.⁵⁷ This kind of moral relativism was common amongst the very radical Whig dissenters and Darwin's observation of alternative cultures on his *Beagle* trip had made him ripe for it. He courted in 1838 (and in 1839 married) his cousin Emma Wedgwood, a devout Christian, and opened his heart to her about his increasing unorthodoxy on religious issues.



Gower Street

⁵⁶ F Darwin (1887) III p. 308 omits the last sentence which is included in the later version of the work [Barlow (1958)].

⁵⁷ As usual with such relativists, however, he contradicted himself by saying that he believed that "man in the distant future will be a far more perfect creature than he now is" F Darwin (1887) I p. 312

He was not, of course, an atheist at this time, and no serious commentator believes he was. For example :

...despite his recognition of the materialist implications of selectionism for human nature, he continued for some time to believe that the natural world was created by a rational God.⁵⁸

... Darwin was no atheist. He accepted that all this resulted from God's natural laws, and if it looked like leading to a godless conclusion, a "Man... would earnestly pray "deliver us from temptation".

Harriet Martineau was a Unitarian, believing that matter itself was endowed with spirituality. God was seen as setting it all in motion. Yet in his notebooks Darwin was exploring the obvious metaphysical implications of a consistent positivist creed. A person can be "congratulated for doing good" but the act is actually purely conditioned and "deserves no credit". Moreover "wickedness is no more a man's fault than bodily disease!". Had his Anglican friends known his views, it would not have been his evolution but his deterministic materialism that would have shocked them.

But he still had no *mechanism* for evolution. Darwin claimed that in 1838 the reading of Malthus essay on population pressures triggered his recognition that "natural selection" was the evolutionary mechanism he had been looking for. Whether this was true, or he had earlier seen the idea in Patrick Mayhew as some suggest, by 1838 the framework of his later theory was in place.

Darwin claims in the long passage quoted above that with his loss of belief he "felt no distress". Yet Moore and Desmond are probably right in their assessment:

Darwin was approaching the Victorian dilemma, becoming 'destitute of faith, yet terrified of scepticism.' His new Malthusian evolution might have been implicitly secular, but it was not atheistic. How could it be, he asked, when God's laws produced so 'high a mind' as ours?⁵⁹

This, always, was a tension in Darwin's evolution. As a process it was blind, pointless, directionless. New species were simply better adapted to particular environmental niches. There were, rationally, no "higher animals". Yet what Victorian gentleman, faced with all the feelings of adulation towards a perfect gentleman like Henslow or an angelic wife like Emma, could not feel that there "really were" such things as "higher faculties"? Who could really throw off any notion of purpose or morality or meaning – or indeed the choices we feel ourselves to freely make?

Meantime, the devout Emma was lovingly expressing to him her concerns, urging him to:

Read our Saviour's farewell discourse to his disciples which begins at the end of the 13th Chap of John... it is the part of the New Testament I love the best...

Emma was always concerned for the eternal destiny of her beloved Charles – but by this time he believed neither in a soul nor an afterlife. It deeply concerned him, and continued to concern him for the rest of his life as she too was concerned for her husband. Placing Emma on the Christian spectrum is not easy. Moore and Desmond say:

Emma's Christianity was a simple evangelical prescription to gain everlasting life by believing in



Charles and Emma

⁵⁸ Bowler (1992) p. 83.

⁵⁹ Moore and Desmond (1989) p. 268

Jesus...⁶⁰

If we may digress a little on Emma at this point, Edna Healey's book on her claims in contrast that the basis of her thought was still Unitarian; she had attended a Unitarian chapel in London with Fanny and Hensleigh, and still wished there was one at Downe. She had little in common with the Evangelicals, who 'imagine they feel shame for an inherently sinful nature...' [Healey (2001) p.333]

There is perhaps some truth in this, though we are not reassured by Healey's claim elsewhere that in 1859:

Most Christian believers accepted in blind faith the literal truth of Genesis: at the Creation, God made each species distinct and immutable; two by two, the animals marched ino=to the Ark, and centuries later were still unchanged. (p.251)

Nothing in Healey about the fact that by 1859, as already noted, there was not theologian or scientist of any note who believed animals unchanged since a recent creation. She also has poor old Wilberforce "routed" by Huxley in 1860 – though virtually no modern historian of science sees it this simply.

But then, Healey, though well educated, is neither a historian nor a theologian.

Late in life she "partly agreed with" Balfour's *Foundation of Belief*, which is an attack on agnosticism and naturalism, pointing out that Science cannot

maintain its claim to be true, to be knowledge of reality, without postulating the idea of something not less real, which is the harmony of mind and the world. In later years she did not like the high church vicar at Downe, and went to a neighbouring parish – which was more evangelical.

Tantalisingly Healey tell us that almost the last essay Emma rad was by Leslie Stephen (she does not say which), a man who had lost his Christian faith and was working out an alternative "evolutionism" to Spencer, based on a conception of social vitality rather than one of hedonism.

In any event, Emma was devout, and in som esense or other remained so. Charles' later claim to have "felt no distress" over their differences is unconvincing. It was very stressful.



Emma Memorial –
St Marys: Downe

Charles Darwin 1842-1851

By 1842 Darwin, Emma and their two children moved to Downe (or Down) in Kent, away from the turmoil of London in the 1840's. He lost his third child Mary as a baby born shortly after their arrival, and continued to



Down House Front

write and work as a naturalist. By 1842 also, Darwin's evolutionary ideas were fully formed and sketched – though he did not yet announce it publicly.

In early 1844 Darwin communicated some of



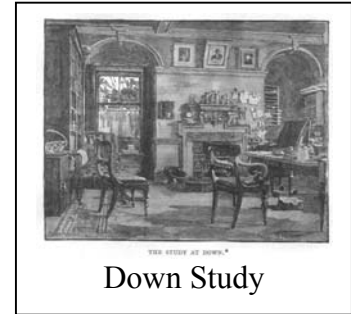
Down House Back Garden

his ideas on transmutation to the young botanist Joseph Hooker, newly back from a stint as assistant surgeon on a navy vessel (the mid decks equivalent of Darwin's trip – open to poorer men like Hooker and T H Huxley to further their scientific careers). Darwin famously wrote:

I am almost convinced (quite contrary to the opinion I started with) that species are not (it is like confession a murder) immutable.

⁶⁰ Moore and Desmond (1989) p. 281.

Darwin probably felt this for a number of reasons. He remained both indebted to and deeply fond of Sedgwick and Henslow, and believed that the Cambridge circle would be deeply offended by his materialistic evolution (as his letter to Sedgwick even in 1859 when the *Origin* was published showed). Secondly, he was aware that his devout wife could be hurt by the publication of his views. Thirdly, in the 1840's there was deep resentment amongst much of the population (including nonconformist Christians) about the power, patronage, and wealth of the Established church. Only Anglicans could graduate from or hold posts at Oxford or Cambridge, and much of the science patronage was controlled by the Church of England. In cities, the poor lived in squalor, whilst the church collected tithes. Atheism and atheistic transmutation were a favourite theme of the radical agitators – and the last thing Darwin wanted was to be associated with the rabble in the very turbulent 40's.



Hooker (whose background was evangelical) was moderate in response. He would be interested to see any evidence, though had as yet seen nothing to convince him. Meantime, Darwin ought at least to become an expert at *something*. Darwin did. He spent years studying barnacles.

In 1844 Robert Chambers published anonymously a tract of evolutionary Deism *The Vestiges of the Natural History of Creation*. Chambers was self-taught – and it showed. The work was savaged in reviews as bad science not only by the Christian Sedgwick, but by the agnostic Huxley. Darwin remarked of it:

the writing and arrangement are certainly admirable, but his geology strikes me as bad, and his zoology far worse.⁶¹

It tried to combine materialism (which was more the base of Sedgwick's objections than the evolution as such) – whilst keeping a deistic God who set it all up. Darwin realized that he would have to have a better case than he did before announcing his own theory.

His religious faith seems to have continued to decline. Moore and Desmond suggest that

Just as his clerical career had died a slow “natural; death”, so his belief in “Christianity as a divine revelation” had withered gradually. There had been no turning back once the death-blow fell. His dithering had crystallized into a moral conviction so strict the he could not “see how anyone ought to wish Christianity to be true.” If it were, “the plain language” of the New Testament “seems to show that the men who do not believe, and this would include my father, brother and almost all my best friends, will be everlastingly punished. And this is a damnable doctrine.

Hard heartfelt words, they recalled the bitter months and years after the Doctor's death. But what about the wider issues? How could belief in God and immortality be justified given the conflicting evidence? “Inward convictions and feelings” were unreliable because the human mind had evolved. Blind nature had given them a survival value, like other instincts. So while he sometimes felt himself a theist, at others he distrusted his own feelings, let alone anyone else's.⁶²

His evolutionary views, coupled with his hardening materialism, certainly played some part in this decline. But emotional issues were probably also important. The death in 1851 of his favorite daughter Annie (aged ten) destroyed any vestige of belief in a benevolent creator:

For him the death marked an impasse and a new beginning. It put an end to three years deliberations about the Christian meaning of mortality; it opened up a fresh vision of the tragic contingency of nature... Annie's cruel death destroyed Charles's tatters of belief in a moral, just universe. Later he would say that this period chimed the final death-knell for his Christianity, even if it had been a long drawn-out process

⁶¹ Letter to Hooker in F Darwin (1887) I p. 333.98.

⁶² James Moore and Adrian Desmond *Darwin* p. 623.

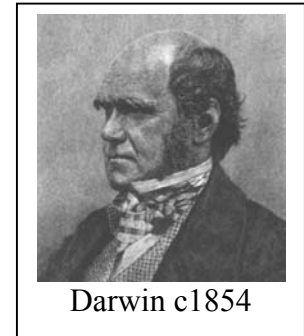
of decay.⁶³

This death was the formal beginning of Darwin's conscious dissociation from believing in the traditional figure of God.... Little by little, his theological doubts turned into conviction.⁶⁴

The thought, moreover, of his unbelieving father (who had died in 1848) in an everlasting hell of incessant torture brought a moral revulsion to what he thought was the teaching of Christianity as we noted in his words above.⁶⁵ There were then (as indeed now) conservative evangelicals who believed hell to be eventual annihilation rather than everlasting conscious torment⁶⁶, but most simply take it that timeless suffering is involved without even looking into what the New Testament actually says and without thinking of the enormity of the implications of what they believe. Darwin *did* think about it, and it horrified him.

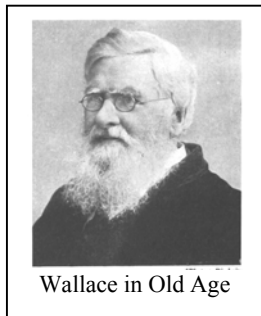
Charles Darwin 1851-1859

Darwin continued with his scientific study, slowly moving from geology to biology. He studied not only Barnacles, but the effects of pigeon breeding – looking for the breeder selection parallels to natural selection. But still few knew of his theories. He was working on his big book on natural selection, but was not yet ready to publish. As well as Hooker, the evangelical American botanist Asa Gray now also knew of Darwin's ideas – in a detailed letter – but was sworn to secrecy. Darwin was unready to publish, but safeguarding his priority.



Darwin c1854

In 1858, as is well known, his hand was forced by the arrival of a paper from the young naturalist. A



Wallace in Old Age

R Wallace. Wallace, unlike Darwin, was not rich, and was earning his living by collecting beetles in various jungles. He had written a paper that, in essential outline, gave all the elements of Darwin's theory – and he unknowingly chose Darwin to send it to in the hopes of publication! Wallace was a socialist, believing in a progressive reality, and he later became a convinced spiritualist. He was neither Whig nor materialist – yet his theory seemed essentially the same as Darwin's. Darwin was in a dilemma. If he published it, the theory would be known as the “Wallacian theory of evolution”. If Darwin instead published something himself, Wallace might think he had stolen the idea. Darwin, as requested, sent it on to Lyell, but with

a note bewailing his dilemma. Lyell and Hooker fixed up a compromise. To the Linnean Society in 1858, on Thursday 1st July 1858, Darwin's 1842 and 1844 sketches were presented together with Wallace's paper. Neither man was present.

The paper caused little stir, but now Darwin was feverishly preparing a small book. Charles Lyell was supportive, but was struggling with the problem of the implications of any human evolution (and never was quite reconciled to this being purely naturalistic). Thomas Henry Huxley – a rising force in science and virulently anti-clerical – embraced the theory. Herbert Spencer the philosopher already believed in evolution for philosophical reasons. A common “enemy” was the great comparative anatomist Richard Owen. Owen was not particularly anti-evolution, but he firmly believed that God had designed animals in various archetypes (however they were produced). Owen was very much part of the Anglican establishment – though he had in fact furthered Huxley's career.

⁶³ Moore and Desmond (1989) p. 386.

⁶⁴ Browne (1995) p. 503.

⁶⁵ Both Moore and Desmond (1989) and Browne (1995) note this.

⁶⁶ This has long been my own view, and recent works by conservative evangelicals like Fudge (1982) and Wenham (1996) and in Fudge and Peterson (2000) lay out clearly the reasons for this.

Darwin's book *The Origin of Species* finally appeared in mid November 1859.

In religion, Darwin no longer believed in a benevolent creator. In 1876, however, he wrote in his autobiographical sketch (quoted below) that a compulsion to "look to a First Cause" meant that he had "deserved to be called a Theist" at the time he wrote the *Origin of Species*. Quite how far we can take his ageing memory at face value (he even qualified it with "as far as I can remember") is uncertain. It is true, however, that *The Origin of Species* ends with these words:

There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

The sixth edition (1872) carried the same words as the 1st edition (1859).

We have to make it abundantly clear that any religious controversy which broke out over *The Origin of Species* was *not* about biblical literalism – however tiresomely such myth is repeated by ill-informed books and TV programmes. No serious scientist *or theologian* in the 1860's thought the "days" literal, or the earth young.⁶⁷ Hostile reviewers like eg the evangelical Cambridge geologist Adam Sedgwick⁶⁸ objected to its unscientific and non-inductive base, and to its implicit materialism – not to its lack of supposed "literality". In the famous clash in the debate in the 1860 British Association for the Advancement of Science at Oxford, Bishop Samuel Wilberforce accepted an ancient earth no less than Thomas Henry Huxley. His objection was to an apparently purely materialistic human evolution – and again because the theory lacked proper evidence. The ancient age of the earth was universally accepted, and not seen as Anti-Christian! As we have already noted. When, later, Lord Kelvin argued on grounds of physics that the earth could not be as old as Darwin claimed, he was arguing for it being "only" some 20 million years, not 6,000. Young-earth creationists today want to claim such scientists as "creationists" or "bible believers" – but on eg the *Answers in Genesis* website increasing numbers they list have to have a little star to signify what they call "old-earth compromiser". The galaxy of devout Christians who were great scientists of the period did not, of course think in any such terms of "compromise" – any more than the committed Catholic Galileo, devout Lutheran Kepler, or pious Puritan Jeremiah Horrocks felt they were "compromising" when they concluded or assumed by 1630 that the earth was moving. All such scientists held a high view of the inspiration of Holy Scripture, but simply did not believe that it was meant to address issues of whether the earth moved or was old. Francis Bacon had only made explicit (c 1600) a view always held and long expressed in terms of "two books". Theology was the human interpretation of God's word the Bible, science the human interpretation of God's works of nature, both were fallible but in the end both would point to the same God. Sedgwick was *explicitly* Baconian, but this general approach (vilified by modern young-earth creationists) was all but universal amongst scientist Christians through history. Darwin was fearful that he would be condemned by some churchmen as a materialist, but not because he was a "non-literalist".

Charles Darwin 1859-1882: Design or Purposeless?

From 1859 until his death aged 73 in 1882, Charles Darwin continued as a revered naturalist. Further works included:

1868: *The Variation of Animals and Plants Under Domestication* (2 vols)

1871: *The Descent of Man* (2 vols)

1872 *The Expression of the Emotions in Man and Animals*

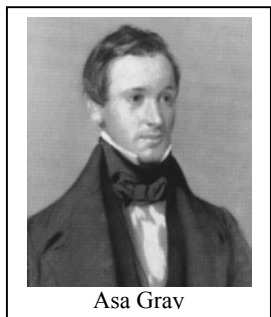
⁶⁷ The only possible exception is Phillip Gosse, who thought God had made it to look indistinguishable from an old universe and earth and so is a special case with ideas totally at variance with modern young-earth advocates.

⁶⁸ In *The Spectator* 24th March 1860.

These works made explicit his degree of commitment to the evolution of emotions, conscience, and all elements of human experiences. There was no “gap” in his view between man and animals. Darwin wavered, however, on the issue of the all-sufficiency of natural selection as an agent. His strongest advocates, Huxley amongst them, were even more non-committal to natural selection as sole agent. The *fact* of evolution they believed, the *mechanism* was less certain to them. Darwin fell in with this, writing to Nature in 1880 insisting that he had always advocated a multi-causal approach. Natural selection was in decline, and in fact, after Darwin’s death a form of neo-Lamarckian evolution resurged and dominated for decades.⁶⁹

On the religious front, actually, in the late 1850’s and early 1860’s Darwin’s ‘inner circle’ included a number of highly religious men. Adrian Desmond rightly remarks that even the crusade of the X-club was never simply a matter of Church-baiting rationalists triumphing over religious obscurantism, but a more subtle attempt, jointly undertaken by ‘agnostics’, deists and some Christians, to professionalise science and put it at the disposal of the mercantile middle classes.⁷⁰

The key evolutionists in the 1860’s were from almost every conceivable religious viewpoint. A R Wallace, who independently formulated and consistently supported the theory of evolution by natural selection, became a lifelong spiritualist. In England the circle of close supporting naturalist friends around Darwin and Huxley included the Unitarian W B Carpenter (1813-85) who proposed Huxley for his FRS, and the Broad Churchman W H Flower (1831-99). There was the Methodist W K Parker (1823-90), whose ‘lifelong almost rustic piety was reminiscent of Faraday’s’ with an ‘exuberant belief in Old Testament miracles’ and an ‘abiding sense of the Divine presence.’⁷¹ There



Asa Gray

was J W Hulke, a ‘deeply religious Calvinist’ who was Huxley’s formidable ally.⁷² Then, in those early years, there was Professor of Zoology St George Mivart, an Evangelical who became a Roman Catholic in 1844 during the revival of Anglo-Catholicism. A keen evolutionist he was almost one of Darwin’s inner circle, and a close friend of Huxley; his later move to belittling natural selection was a bitter blow to the group.⁷³ In America, the foremost supporter of Darwin was indubitably the Harvard botanist Asa Gray (1810-1888), who was the first one outside the English circle to whom Darwin revealed his theory. The Encyclopaedia Britannica says of Gray:

Gray was one of the few persons whom Darwin kept fully informed concerning the publication of his *Origin of Species* (1859). Gray was a devout Christian, however ...

Livingstone states of Gray:

his convictions were thoroughly evangelical. He stated that the Nicene Creed encapsulated the heart of his faith. Moore states: a moderate Calvinist and an adherent of the fundamental doctrines of evangelical Christianity.⁷⁴

Darwin’s leading American proponent, then, was an Evangelical. On the other hand the leading scientific anti-Darwinian in America was probably Agassiz. Agassiz was a theist but no Evangelical, and Livingstone suggests that he found Unitarianism congenial to his views.⁷⁵ Agassiz believed so strongly in special creation that he opposed racial intermarriage because he thought the different races had been made separately. This is ironical since young-earth creationists often laud Agassiz as

⁶⁹ see Bowler (1983).

⁷⁰ Desmond (1982) p. 17.

⁷¹ Desmond (1982) pp. 51-53.

⁷² Desmond (1982) p. 134.

⁷³ Desmond (1982) p. 137 and see Moore (1979) p. 117.

⁷⁴ Livingstone (1987) p. 61.

⁷⁵ Livingstone (1987) p. 58.

a ‘creationist’ and ‘Bible-believing’ champion of orthodoxy, and Henry Morris (following Price’s lead) decries evolution for its supposed connection with racism and imperialism.⁷⁶ But let us note that in America the foremost scientific figures on both sides believed in a God and accepted orthodox geology, but Darwinian-evolution was defended by the Evangelical (Gray) and attacked by the theologically-liberal racist (Agassiz). Since we are focusing on Darwin, we need not look at the continuation of that pattern later in the century at this point.⁷⁷

Darwin himself was well aware that his “followers” included men like Gray who combined it with varying kinds of Christian belief including the conservative and evangelical. He would never have seen the issue as a simple “evolution versus Christian faith” – any more than did his contemporaries (cf even Charles Hodge below). Darwin insisted that one could accept his scientific theories and believe in God. Even in 1879 a member of his family wrote on his behalf to a German student:

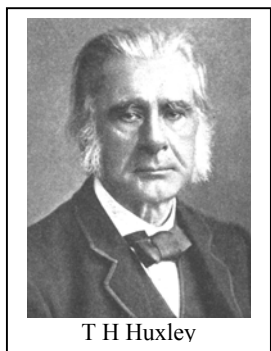
He considers that the theory of Evolution is quite compatible with the belief in a God; but that you must remember that different persons have different definitions of what they mean by God.⁷⁸

Adding himself:

Science has nothing to do with Christ, except in so far as the habit of scientific research makes a man cautious in admitting evidence. For myself, I do not believe there ever has been any revelation. As for a future life, every man must judge for himself between conflicting vague probabilities.

To a sermon of leading Tractarian E B Pusey Darwin responded in the late 1870’s that the *Origin of Species* had no “relation whatever to Theology”, though Darwin also claimed that when he wrote it his own “belief in what is called a personal God was as firm as that of Dr Pusey himself.” Darwin usually refused to be drawn, holding that what he believed was of “no consequence to any one but myself”. In 1879 Darwin wrote a biography of his grandfather Erasmus Darwin, and returned to his own biographical notes. In response to a letter at this time:

He replied that a man undoubtedly can be “an ardent Theist and Evolutionist,” look at Charles Kingsley and Asa Gray. For himself, Darwin had “never been an Atheist in the sense of denying the existence of a God,” but Darwin still felt profoundly uncertain. If Darwin had to wear a label, Huxley’s suited better. “I think that generally (and more and more as I grow older), but not always, that an Agnostic would be the more correct description of my state of mind.” Even in his clear-headed confusion, Darwin was agnostic about his agnosticism on occasions...⁷⁹



T H Huxley

By “Agnostic” Huxley had signified not so much that one was simply unsure about whether there was a God, and not that one could never know. Huxley actually believed that there was a “something” – but that the something was “the passionless impersonality of the unknown and unknowable”.⁸⁰ John Hedley Brooke, however, argues that Darwin meant the term in a sense rather different from Huxley - in actual fact Darwin wavered, was undecided, and could speak differently on different occasions not from deception but from uncertainty.⁸¹

Perhaps the absolutely central issue is that of design. If God is in any sense a “creator”, then the universe must in some sense be “designed”. If there is no design in the world then there is no creator-God. It is for this reason that the Presbyterian theologian

⁷⁶ Morris (1984b) p. 463, (1984) p. 45, etc.

⁷⁷ It is looked at in our *Reason, Science and Faith*.

⁷⁸ F Darwin (1887) p. 307.

⁷⁹ More and Desmond p. 636 (and see n30 for refs)

⁸⁰ Cited in Desmond (1994) p. 519.

⁸¹ See eg Brooke’s ‘Darwin’s Science and His Religion’ in J Durant (Ed) (1985). My present treatment is also based on personal discussion with the author, now an Oxford Professor on interactions of science and theology.

Charles Hodge wrote in an 1874 work *What is Darwinism? It is Atheism*. Hodge had no objection to evolution by natural selection as advocated by Asa Gray (with God directing through the mutation process). But he detected in Darwin himself an implication of *lack of design*, and this, by definition, meant it was atheism. Actually, Darwin struggled over the question of design. On the one hand natural selection seemed to open the door to the possibility that creatures could have evolved purely accidentally, and Darwin felt a moral revulsion against the idea that suffering and death could form a part of a design plan. On the other hand Darwin found it hard to escape a conviction that the universe as a whole must be more than a product of un-designed chance. His friend Gray (and, according to Darwin, Lyell) thought that perhaps God worked through designing the variations worked on by natural selection. In 1861 Darwin wrote to him:



Darwin's Sandy Walk
Favorite Walk in Downe

If anything is designed, certainly man must be: one's "inner consciousness" (though a false guide) tells one so; yet I cannot admit that man's rudimentary mammae, bladder drained as if he went on all four legs, and pug-nose was designed.⁸²

Darwin was, after all, a determinist who denied libertarian freewill but wanted to maintain morality, a believer in purposeless chance evolution who wanted to believe there was some point to it all. So naturally enough Darwin was, as he repeatedly wrote to Gray in the early 1860's, 'in a muddle'. It was as big a muddle as Daniel Dennett, Richard Dawkins, and those like them are in today – trying to maintain meaning and morality in a purposeless, deterministic, and reductionist reality. The heart of his problem was not evolution, but deterministic materialism: but, unlike them, Darwin realised it.

By the *Descent of Man* (1871) Darwin could write:

The birth of the species and of the individual are equally part of that grand sequence of events, which our minds refuse to accept as blind chance. The understanding revolts at such a conclusions, whether or not we are able to believe that every slight variation of structure... have all been ordained for some special purpose.

When the Duke of Argyll (a disciple of Richard Owen) suggested that it was impossible not to see design in nature, the ageing Darwin famously responded during a long talk in 1881:

Well that often comes to me with overwhelming force, but at other times,' and he shook his head vaguely, adding 'it seems to go away.'⁸³

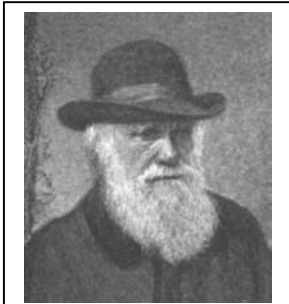
In 1876 Darwin wrote his autobiographical sketch "Recollections of the Development of my Mind and Character" – intended for his own family rather than for publication. It has to be treated with caution. Some of the things Darwin says in it are economical with the truth, a reconstruction of history with a faltering memory of what Darwin was actually thinking (or even actually did) in younger days. It was also reworked, especially the passages on religion, in 1881. But we may still note that in one passage Darwin speaks of:

the extreme difficulty or rather impossibility of conceiving this immense and wonderful universe, including man with his capacity of looking far backwards and far into futurity, as the result of blind chance of necessity. When thus reflecting I fell compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and a deserve to be called a Theist. This conclusion was strong in my mind, as far as I can remember, when I wrote the 'Origin of Species;' and it is since that

⁸² F Darwin (1887) vol 2 p. 382.

⁸³ F Darwin (1887) vol 1 p. 316.

time that it has very gradually, with many fluctuations, become weaker. But then arises the doubt, can the mind of man, which has, as I fully believe, been developed by a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?



Darwin 1879

I cannot pretend to throw the least light on such abstruse problems. The mystery of the beginning of all things is insoluble by us; and I for one must be content to remain an Agnostic.

In 1881 he also received William Graham's *The Creed of Science*.

Graham argued that many traditional beliefs (God, freewill, morals and immortality) could survive the present materialism. Darwin enthused about it to Romanes⁸⁴, and wrote to Graham of an inward conviction that 'the Universe is not the result of chance' – repeating, however, earlier doubts about the capacity of the human brain, if it were really a product of natural selection purely for survival, to arrive at truth in such matters.⁸⁵

On 11th August 1881 Darwin replied to the militant atheist, anatomist, and politician Edward Aveling⁸⁶ who had sent some collected articles (*The Student's Darwin*) for which Darwin had declined a dedication. Darwin:

replied with a cool thanks, admitting that he could hardly stop writers from taking his views 'to a greater length than seems to me safe.'⁸⁷

Darwin refused to be cast in the role of all-knowing guru, and declined to take sides on religious issues.⁸⁸ Darwin felt that his religious views were his own affair, and resisted attempt to hijack him for militant atheism.

As briefly noted, figures like Leslie Stephen and Herbert Spencer developed ideas of "evolutionism". There was a parallel religious version from ex-evangelical Preacher Henry Ward Beecher and the so called "Social Gospel", which contributed to the over-reaction of early Fundamentalism into a world-abandoning individualistic pietism. Where did Darwin fit into this kind of notion? Well, as noted, he does (as might be expected from a Cambridge man and Victorian gentleman) struggle with accepting that it is all meaningless and purposeless. Thus, on the one hand, he does recognize that actually evolution simply selects the "fittest" to survive, without regard to moral, aesthetic, or any other meaningful idea of superiority. On the other hand, to call it "progress" seems at times too much of a temptation. But he never tried to construct a "system" like Leslie, Spencer or moderns like E O Wilson. He probably saw evolution as all embracing as does Dawkins, but did not try to defend ethics or meaning as extensively or unsuccessfully. He remained "in a muddle", but in a more private and less thought out and therefore less complete muddle than figures like Wilson, Dawkins or Ruse today.

In any event, Darwin's beloved elder brother Erasmus Darwin died on 26th August 1881. Charles contemplated his own death – finding that he was now worth over a quarter of a million pounds⁸⁹ and rewriting his will. In the midst of this grief and concern, a telegram came (dated 27th September 1881) from Aveling, requesting that he and another militant atheist and materialist, the renowned Dr Ludwig Büchner be allowed to visit whilst in the area. Emma, appalled at having to entertain

⁸⁴ The letter dated 27 June 1881 is cited in Moore and Desmond (1989) p. 653.

⁸⁵ F Darwin (1887) vol 1 p. 303. 316.

⁸⁶ Aveling married Karl Marx's daughter Jenny, though treated her appallingly.

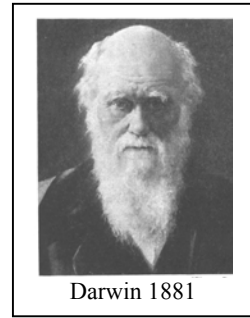
⁸⁷ Moore and Desmond (1989) p. 655.

⁸⁸ Moore and Desmond (1989) describe this on p. 635.

⁸⁹ This incidentally renders ridiculous the suggestion of one writer that Darwin's family suppressed his scientific recantation because they needed the money from sales of books!

notorious atheists, suggested that their friend the Rev Brodie Innes also be invited. Moore and Desmond describe thus the dinner on 28th September:

The table became an embodiment of Darwin's life-long dilemma. It was less a lunch, more a last supper; everybody he had loved, everything he had feared, every paradox of his career had come together in a penultimate act. Here, his disapproving evangelical wife, his kindly Tory vicar, his genetically weak children, and his atheistic disciples Büchner to his right and Aveling on the left...



Darwin himself brought up the subject of atheism after the men adjourned. Darwin objected to Aveling's atheism, preferring to be called "agnostic". Aveling, in turn, felt that "agnosticism" was only a less militant atheism anyway.

In October Darwin's last book (*Worms*) appeared, and Darwin was still traveling around. Darwin was ill, with heart trouble, but still working (and apparently still pushing Graham's book with guests). In March 1882 Darwin was diagnosed with angina, and generally succumbed to despair and illness – though at times revived. On Saturday 15th April 1882 Darwin became very ill, under constant nursing from his beloved wife Emma, his daughter Henrietta, and his son Francis (Frank). Darwin assured Emma that he was "not in the least afraid to die", and in the final throes of illness positively wished for it. In final pain and nausea Darwin cried out "Oh God" and "Oh Lord God", and at 3.25 "I feel as if I should faint". Darwin died in Emma's arms around 4pm on Wednesday 19th April 1882.

He was buried in Westminster Abbey. Was this appropriate for an agnostic? Few raise any questions today when many who have lived and died effectively as agnostics are buried with Christian rites. Few voices, and none of "importance" were raised to question Darwin's burial place. Darwin was, after all, a respectable married man. Darwin was, after all, a respected national scientific hero. The fact that Darwin disbelieved most of the content in rites performed was unimportant.

Death-Bed Conversion?

Introduction

Sometimes stories are circulated that Darwin had a 'death-bed conversion', and renounced the wicked theory of evolution.⁹⁰ More importance is usually given to such stories than they would warrant even if true. Usually someone denouncing evolution as wicked gives a knowing (and sometimes patronizing) smile and says: "Did you know that even Charles Darwin himself renounced his theories of evolution and experienced Christian conversion at the end of his life?" Actually, even if it were true, this would actually prove very little. Critics would simply put it down to senility, and the views of one elderly man in 1881 are hardly crucial. But is there any possibility that it is true? What basis is given for it?

There are various stories, usually of very much later second or third hand accounts. These are gathered together by Croft (1989) and Moore (1995), and I have mostly used them as presented there. As we shall see, however, there is good reason to reject or amend the conclusions of both

⁹⁰Eg a British 'daily reading' booklet carried the story yet again in late 1998. This was derivative on Pearce (1993), which in turn was totally derivative on Croft (1989). A young person attending Soul Survivor in Autumn 2001 told me several people had told her of Darwin's "conversion" and renouncement of evolution. The myth is deepset.

these authors. Croft draws conclusions from his data which are both unwarranted and wildly unlikely, whilst Moore seems over critical of the main “witness” in the affair.⁹¹

The main account carrying any plausibility is of a visit or visits to him by the temperance campaigner and evangelist Lady Elizabeth Hope, sometime in the Autumn of 1881, a few months before his death. To assess this we need some historical background.

Background⁹²

Lady Elizabeth Hope was the daughter of General Sir Arthur Cotton, and they were devout members of the C of E.. Returning from India, the family eventually settled in Dorking near to Darwin’s Wedgwood relatives and some 15 miles from Darwin’s Downe home. Darwin himself visited Dorking yearly between 1873 and 1880. She and her father were active in the temperance movement, and were in the circle that included Dwight L Moody, and his eminent British supporters. So Moore comments that she had by 1875:



Lady Hope 1887

Become an accredited evangelical activist. She was close to Moody and his family; she certainly knew Denny and Anderson.⁹³

At the age of 35 she married Admiral Sir James Hope, a 69 year old widower who shared her concerns about the gospel and temperance. She moved to his Scottish estates but continued her evangelical activities.

Now known as Lady Hope of Carriden, Elizabeth continued her ministry with a noble sense of duty. In pubs and school rooms, cottages and castles, she preached and prayed and read the Bible, with drunkards, the destitute, and the dying. Month by month she sent back anecdotes of the work to her little flock in Dorking, and sometimes she came down to visit them. From Dorking she would go further afield. Kentish villages held a special attraction for her...” All these village haunts lay within a few miles of Down.⁹⁴

Darwin himself had become indirectly involved in the gospel and temperance movement through an Irish member of the Brethren church James Fegan. Fegan had been working with young lads amongst the rather wild hop picking seasonal workers in Kent. Fegan asked Darwin for the use of the old schoolroom at Downe where the Darwin family had set up a temperance reading room. Darwin replied:

You have more right to it than we have, for your services have done more for the village in a few months than all our efforts for many years. We have never been able to reclaim a drunkard, but through your services I do not know that there is one drunkard left in the village.⁹⁵

Fegan later wrote:

Parslow, the old historic butler of the Darwin family, was brought into the light, and into Church fellowship, through my services; so was Mrs Sales, the housekeeper in the Darwin family, and other servants; so that I was in close touch with the Darwin household. It may further interest you to know that whenever I held a mission in Downe, even after I had ceased to reside there, the Darwin family used to do what I have never known another family in their position do – alter their dinner hour so that their household might be free to come to my services.⁹⁶

⁹¹ This is not, of course, to impugn the integrity of either. L R Croft was earlier this year very helpful to one of my students doing a double degree project on Darwin, whilst James Moore is an old acquaintance.

⁹² One website is http://en.wikipedia.org/wiki/Elizabeth_Hope -I note it references my essay!

⁹³ Moore (1995) p.45.

⁹⁴ Moore (1995) p. 45.

⁹⁵ Fullerton (1930) p. 30.

⁹⁶ Fegan to S J Pratt 22nd May 1925, quoted in Moore (1995) p. 114

In early July 1881 James Fegan collapsed from heatstroke, and went away to convalesce. Moore suggests that “It is likely that Lady Hope was his fill-in” though whether she was an “official” fill-in or simply seizing the opportunity is uncertain. Lady Hope’s husband had died the previous month, and she was back staying with her parents in Dorking. We know well that being the kind of person she was, she was likely to have arranged something, and holding meetings near Downe is very likely. If the Darwin visit (or two visits) took place, this would have been around 29th September to 2nd October 1881.

Lady Hope did not make very much of it at the time, and continued to campaign tirelessly. She remarried, and became involved in a number of philanthropic Christian projects, which continued after the death of her second husband. She was not a good business manager (though there seems no suggestion of any impropriety), and eventually went bankrupt in 1911. Now aged seventy, and with no obvious income, she went to New York in 1913 – continuing to preach in missions and set up “clubs” for drunkards. In 1915, knowing that she now had breast cancer, she recontacted the Moodys. It was from 1915 that she began to speak of her encounter with Darwin. Why did she so long delay? In Britain it would probably have cut little ice, and (as a member of the aristocracy) added little to her credibility. Now, however, she was bankrupt, she probably considered Darwin dead long enough to avoid any family embarrassment, and she was playing to the particular agendas of her American hosts. There is nothing especially sinister or underhand in this, but it was a useful thing to milk as well as an encouragement to her hosts. Moore unfortunately fails to note that the “fundamentalists” of this time were usually open to the possibility of evolution⁹⁷ – and that even William Jennings Bryan (the great Democrat orator involved in the infamous “Scopes trial” of 1925) was concerned with *human* evolution⁹⁸ – not arguing for biblical literalism or against evolution in general. But an impoverished but still feisty member of the British Aristocracy could do worse than claiming to have some inside knowledge of the religious views of the great naturalist himself.

Accounts

The various accounts of the incident include:

1. *Various personal reports of conversations with Lady Hope around 1915*
2. *A newspaper article in the Watchman-Examiner*
3. *Lady Hope’s own account in a letter dated around 1919-1920.*⁹⁹
4. *Various derivative reports and accounts – each of which changed parts of the story*

Part of human nature is that people “read into” accounts things which are not there. Though William Jennings Bryan (a brilliant lawyer) was careful not to read into the story more than was there, many others plainly were not. In my own experience newspapers are worse than average on this. I have given written press releases to papers, only to find that they have “improved” it by using descriptions that are vaguely possible interpretations of what was given them, but are in fact partly fictitious. This seems to have happened with the Watchman-Examiner (eg a sofa is transformed into a bed as death-beds are more dramatic!).

So here is Lady Hope’s own account in a letter published much later:

Dear Sir

⁹⁷ In our *Reason, Science and Faith* we note that the “big four” professors (Strong, Orr, Wright and Warfield) who wrote in *The Fundamentals* all accepted evolution as the most likely explanation of organic origins (with caveats on mankind) – and these represented Baptists, Church of Scotland, Congregationalists and Presbyterians,

⁹⁸ His concern in a letter quoted by Moore is explicitly *not* with the *Origin of Species*, but with Darwin’s materialist vies on the descent of humankind. It would be this, not any recantation of evolution in general, which would be crucial.

⁹⁹ Moore (1995) quotes this, from Bole (1940) who received her letter.

I happened to be staying with friends of mine in a quiet village in Kent; and was told that very near their house was the residence of Dr Darwin. Indeed, I was shown the large gate that opened on to his carriage drive: and I heard that he was scarcely able to leave the house, or even his room. I forget in what year I was there, but it must have been some time before his death.

At this time I was holding cottage meetings in the village, and also some drawing room meetings in the large houses. These meetings were all on Gospel and Temperance lines, and consisted in every case of at least. the reading of Scripture, with conversation about it.

It was at luncheon one day that the lady with whom I was saying said to me:

“Dr Darwin has heard that you are here; and he would like very much to see you. He asks if you could come over this afternoon.”

So it was arranged that I should call at three P.M. I should like to give you my impressions when I first saw him.

*As the door was opened on the landing upstairs, I saw him lying on a sofa beside a very fine bay window, which overlooked a most extensive view of cornfields, gardens and scattered cottages. It was a large room with a high ceiling, and there on the sofa I saw him reaching out his hand to me. His magnificent open forehead, crowned with white hair, the earnest almost intense look in his eyes, and his pleasing expression impressed me greatly. He had a large book open, in front of him, and one hand was on the page – it was a Bible. Raising his hand, he said emphatically:
“This is the Epistle of Hebrews; the Royal epistle I call it. Isn’t it so? And oh, this Book, this Book, I never tire of it.”*

And he began to comment on some of the great Gospel truths, which I only regret extremely, I cannot give verbatim. He spoke of Christ in this way:

“He is the King, the Saviour, the Intercessor, dying, living,” and discoursed rather freely, and with great animation on different parts of the subject.

“But what about Genesis, the very first book in the Old Testament? Your name is always associated in one’s mind with certain doubts about that history – the Creation, I mean your views?”

*Here his whole aspect changed. A look partly of anger, and partly of great distress, was on his face, as he closed his hands, throwing them forward, while he said with a sort of groan or sigh:
“I was young then. I was ignorant, I was enquiring, searching, trying to find knowledge, I wanted the truth and there... and then.” He hesitated, as if he was quite overcome, and burst out with a louder voice, apparently in great displeasure, “They went and made a religion out of it.”*

He sank back quite exhausted, after this outburst, and closed his eyes. Then we talked again quietly. It was either on this occasion or another about the same time, that he suddenly turned and said to me with a bright smile:

“Have you been in my garden? No? Then you have not seen my summer house. It is quite a large one. I should think it would hold about thirty people!

“Now, I want to know if you would have a meeting there and talk to my people. You see there are servants and laborers and some tenants, for there are farms on the estate; and then there are all my neighbours.

“Would you be willing to do this for me? Of course you would sing some hymns, not the sad old drony ones, but those others.” (The Sankey hymns). “Oh yes,” he was smiling so brightly, “I cannot go myself; but this window would be open, and I can hear them all.”

There was such an animated, earnest expression on his face as he said this.

“What shall I speak on” I asked.

“Oh on the Lord Jesus Christ,” he answered most earnestly.

Of course I was willing indeed.

But it never took place, I feel sure there was a lack of sympathy on these lines in the house.

But I can only repeat to you the imperishable memories of that glowing face, and those impassioned sentences.

Lady Hope.

Now we note that she does **not** claim any reporting verbatim here, but what *is* actually claimed?

1. *The frail 72 year old Darwin invited her to tea, and when she arrived was reading the book of Hebrews.*
2. *Darwin commented that Hebrews was a ‘Royal book, and was able to discourse on some of the themes in it.*
3. *Darwin said that he would like her to speak to his people and neighbours, and to preach the gospel.*
4. *Darwin expressed a liking to hear the modern Sankey hymns.*
5. *Darwin expressed regret that some of his earlier questions about the Creation accounts had been made into an alternative religion.*
6. *Others in the house were less enthusiastic about her.*

How can we assess Lady Hope?

Was Lady Hope at all a reliable witness? James Moore is generally critical of her:

Years of tract and novel writing had made her a skilled raconteur... The distinction between fact and fancy in her writings was never well defined. In her dotage now, she was even less likely to be hard-headed about history...

To be a raconteur is one thing but to confuse fact and fiction is another. Moore provides us no kind of independent evidence that she confused fact and fancy, nor that she was in her dotage (rather than Darwin in his – after all, Darwin was about the same age in 1881 as she was in 1915!). Her sincerity and general veracity seems not to have been questioned by anyone. Although a poor business manager she seems high-minded, and Fegan (who refused to give a commendatory letter) seems to have objected to her flamboyance and “extravagance” rather than any dishonesty. So is Moore’s critical view of her based on the Darwin story itself? He says:

Much in Lady Hope’s story is certainly fictitious. Darwin was not “almost bedridden for some months before he died”, was not “always studying” the Bible, and he had no particular feeling for its “grandeur”. He would never have asked Lady Hope to speak to anyone about “CHRIST JESUS... and his salvation.” The notion of him “joining in with the singing” of gospel hymns from his bedroom window is preposterous.

However, the story cannot be dismissed as pure invention either. It contains startling elements of authenticity. Darwin’s bedroom did overlook a “far-stretching scene of woods and cornfields”. The sunsets in that direction were so beautiful that the boys used to climb into the pigeon loft by the kitchen garden to watch them. Darwin also habitually retired to his room at three in the afternoon, where he lay down, smoked a cigarette, and had Emma or Bessy read to him until he fell asleep...out of the bedroom window, about four hundred yards away at the end of his thinking path, the Sandwalk, there was indeed a summer house, from which singing might possibly have been heard on a still and pleasant day. But it was tiny, far too small for “thirty people”. Decades later, Lady Hope’s imagination seems to have conflated the hymn-singing of Fegan’s orphans at Down house with the Bible reading in the old schoolroom, and

placed the proposed event in an unlikely corner of Darwin's property...¹⁰⁰

The term "fictitious" is surely much too strong. Some of the phrases Moore cites are actually in the Watchman-Examiner newspaper article (and his comments come just after it) and *not* in Lady Hope's own letter account as quoted above. We will note this, and consider the plausibility of various parts of her own story below, but my own conclusion would be that they cannot so easily be written off.

Moore's positive evidence that *some* visit took place is, however, convincing. Lady Hope *could* perhaps have gleaned a certain amount from Life and Letters and quizzed Darwin's friends in Kent to make it all up. But to suggest that someone in her position would stoop to such blatant dishonesty (even if she had the resources thirty years later in New York) seems ridiculous. It is one thing to misremember or to "colour up" a story a bit, but another to make up a completely fictitious event which never happened. From what little we know Lady Hope was a genteel, caring, charming, committed and feisty Victorian lady. She sounds like a mixture of Elizabeth Bennett, Mother Teresa, and Catherine Booth (with a hint of Jackie Pullinger). She made mistakes and went bankrupt – but this was from her "going out on a limb" on genuine philanthropic projects out of a Christ-like heart of compassion (it was not from over-spending on a lavish personal lifestyle). She was one of a very rare kind, and, frankly, it was no wonder if the elderly Charles Darwin (deeply committed though he was to his Emma) got a bit carried away when he met her!

Was there an eleventh-hour conversion?

An obvious first question, however, is whether it is conceivable that Charles Darwin had any kind of last minute re-conversion to Christian faith. The answer is clearly "no!" It would be ludicrous to suggest that Darwin concealed such a conversion from his devout wife, who agonized over his spiritual condition, especially as in his dying days Darwin himself could not bear the thought of final separation from her at death. That Darwin should conceal such a conversion but reveal it to a passing stranger is utter and total moonshine. Had Darwin told either his devout wife Emma, or pious daughter Henrietta, either or both would have been delighted to have announced it to the world. Also, James Fegan himself (in a letter in 1925) testified to Charles Darwin's honesty and said plainly:

There is no question that Mr Darwin died as he had lived – an agnostic – but he was a most honorable, chivalrous, and benevolent gentleman.¹⁰¹

Fegan repeated this in another letter and added:

Charles Darwin is the last man I can conceive of who, after finding that any had been misled by any theoretical suggestion of his, would pass away without the most public acknowledgement of his regret...¹⁰²

Fegan may have been unaware of Darwin's muddle, tension and ambivalence on some issues, but would surely have known about any radical change like conversion or renouncement of evolution? Charles Darwin would surely have told him and Fegan would have had even less reason to conceal any conversion than Francis or Henrietta. Any suggestion of some kind of "conspiracy of silence" amongst such people is plainly poppycock. In the final days of his life Charles Darwin was an agnostic. Darwin had expressed this agnosticism on 28th September 1881 to his visiting atheist admirers (whilst attacking their atheism), and Darwin said nothing about conversion to his beloved and doting wife who would have been ecstatic with joy had it happened. We can say with virtual certainty that no such "conversion" occurred. Unless Darwin changed in the literal final moments as

¹⁰⁰ Moore (1995) p.54.

¹⁰¹ Fegan to J A Kensit 1st May 1925 quoted in Moore (1995) p. 111

¹⁰² Fegan to S J Pratt 22nd May 1925 quoted in Moore (1995) p. 115

he collapsed into unconsciousness, Charles Robert Darwin died a muddled, wistful, but confirmed agnostic.

Did any visit occur?

So what about the visit itself? Darwin's son Francis Darwin and daughter Henrietta Litchfield both hotly denied that Lady Hope had made such a visit. Fegan also stated that

the interview as described by Lady Hope, and the service she said she was asked to hold in the summer-house never took place. As a matter of fact, there never was a summer-house in which a service could be held in the grounds!¹⁰³

This is, however, not at all conclusive. Some of their reaction was to supposed "death-bed" versions of the story, and neither Francis nor Henrietta nor Fegan were at Downe during the actually relevant four days of 29th September-4th October 1881. Emma herself had died in 1896, and Henrietta was relying on the fact that her mother had not mentioned any such visit in a letter of 2nd October 1882. Moore notes, however, that Emma also wrote nothing to Henrietta about the dinner visit from the militant atheists Aveling and Büchner, which certainly did occur on 28th September. Emma was almost certain to have been present at any such visit from Lady Hope, but it may not have seemed very significant at the time, and she may have felt a certain antipathy to this young and charming lady to whom her husband spoke somewhat ingratiatingly. This, indeed, is reflected in the hint Lady Hope gives of animosity from others in the household.¹⁰⁴

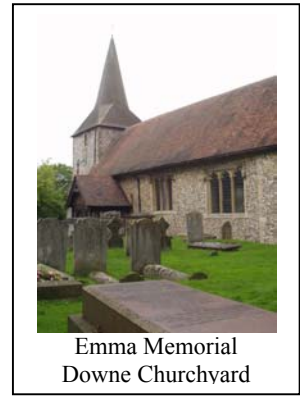
As for Fegan, he complains of Lady Hope's extravagance (though even this was in charitable projects), but also says that:

I have never had an unpleasant word with Lady Hope. Up to the end, we were on friendly terms, although, of course, I had considerable uneasiness about her sayings and doings....¹⁰⁵

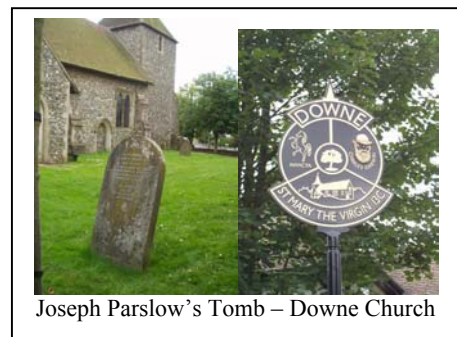
Fegan was, after all, a Victorian, and also a member of the Christian Brethren Church within which women were not allowed to speak, preach, pray in a mixed gender group, have any general authority, or even attend church hatless!¹⁰⁶ How could such a man, however spiritual, be quite at home with the feisty, independently minded, Church of England, Elizabeth? His comments are exactly as we might expect. He was sure that there was no death-bed (or even sick-sofa) conversion, and he knew that the stories he heard of the visit "as described by Lady Hope" were not true. He was prepared to accept Sir Francis Darwin's insistence that Lady Hope had made no visit. Yet he makes no suggestion that Lady Hope was anything but honest, and neither he nor Francis would have been in a position to know that no visit had occurred – since both were absent at this exact time.

So was such a visit likely? The answer is that it is very likely. To begin with Darwin was certainly very sympathetic to the causes of the gospel and temperance, though as Fegan said:

Mr Darwin gave his support, not because he believed the truths I sought to proclaim, any more than he believed the truths the South American Missionary Society was seeking to spread in Patagonia. He helped them and me because he recognized the



Emma Memorial
Downe Churchyard



Joseph Parslow's Tomb – Downe Church

¹⁰³ Fegan to J A Kensit 1st May 1925 quoted in Moore (1995) p. 109.

¹⁰⁴ As indicated below, one of her friends explicitly says Emma was present and cool at the idea of Elizabeth holding any meetings.

¹⁰⁵ Fegan to S J Pratt 22nd May 1925 quoted in Moore (1995) p. 113

¹⁰⁶ I was, of course, brought up amongst Brethren and Baptists.

results of the work they and I had done.¹⁰⁷

Some members of Darwin's own household (including butler Joseph Parslow) were reputed to have experienced evangelical conversion, and Darwin was well aware of the "good effects" of such preaching.

Secondly, Darwin was rather partial to titles – and Lady Hope was the daughter of General Sir Arthur Cotton, and herself a titled Lady newly widowed from Admiral Sir James James Hope.

Thirdly, Lady Hope was (at that time) a near neighbour, her respected parents were probably friendly with some of Darwin's own relatives, and she was an unusual and interesting lady.

Fourthly, as Moore suggests, actually Darwin may have invited Lady Hope to mollify his wife who had perhaps been upset by the unwanted visit of the atheists Aveling with Büchner to the dinner party described above. In the event, it may be that Emma thought Charles to have gone a bit OTT to please and impress this young and charming campaigner (knowing, as she did, his agnosticism). But Darwin was not to know that things would turn out like this, with Emma (when she saw his behaviour) perhaps less warm than expected.

Does the "Hebrews bit" make sense?

Imagine you are a frail 72 year-old, expecting an invited visit for an Autumn tea at 3 pm from a lady who is a genteel, aristocratic, charming, personable, and somewhat feisty preacher and temperance worker. When she arrives will you be reading (say) *Das Kapital*¹⁰⁸, or (say) the book of Hebrews? Not hard! Then when she arrives will you say: "Sorry but this really is a load of nonsense" or will you find something nice to say about it? We note that Lady Hope explicitly denies that she can remember his exact words, but that they were *to the effect that* it was a Royal Book. Darwin also went on to discourse on its contents. We must, of course, remember that Darwin was an establishment figure who once considered the ministry. Even an anti-clerical anti-Anglican figure like T H Huxley actually had his children christened (the godfather was also an agnostic!). Charles Darwin was neither anti-clerical nor anti-Anglican, and was uneasy with militant atheism. The Authorised King James Version and Shakespeare were part of his English heritage. With his Cambridge background, Darwin would also certainly have had a knowledge of what Hebrews was about and have been able to discourse on its themes. The animation with which Lady Hope suggests Darwin spoke is well in line with descriptions of Darwin's manner given by his own son Francis:

When he was excited with pleasant talk his whole manner was wonderfully bright and animated, and his face shined to the full in the general animation.¹⁰⁹

Whether Emma, who knew well enough her husband's views, felt uneasy at any rush of apparent enthusiasm in the actual presence of this magnetic young lady can perhaps be imagined. The suggestion that Darwin was "always reading the Bible" is certainly highly unlikely, but, again, this is in the newspaper account and not in Lady Hope's own letter as cited above.

Would Darwin have urged her to preach the gospel?

Moore claims: "He would never have asked Lady Hope to speak to anyone about "CHRIST JESUS... and his salvation." Well, Darwin presumably knew well enough that Lady Hope's message was temperance associated with a gospel appeal. Darwin also realized that just preaching temperance *without* any life-changing principle would not work. Fegan himself was quite clear on

¹⁰⁷Fegan to J A Kensit 1st May 1925 quoted in Moore (1995) p. 110. Darwin's donations to the local Sunday School (mentioned by Croft) can probably be seen in the same light.

¹⁰⁸ I say this in jest but Marx reputedly wanted to dedicate it to Darwin (who would have abhorred it), and Aveling did marry Marx's daughter.

¹⁰⁹ F Darwin (1887) i p. 111.

this: Darwin wanted him to preach Christ *because it worked* – just as Darwin donated to the preaching activities of the South American Missionary Society presumably *because they worked*. It is quite possible that Lady Hope could have tentatively asked what she was to talk on – fearing that Darwin would be against gospel preaching – and that Darwin confirmed that he fully accepted that her temperance message would be linked with the preaching of Christ. Whether Lady Hope had any impression that Darwin actually *believed* what Darwin urged her to preach, cannot be determined. Her own account does not actually *state* this – though it might easily be inferred that that was what was meant. As repeated by her over thirty years later, to be reinterpreted by friends, it could easily be mistaken to have this implication – but her actual words stop short of any such assertion.

Would Darwin have liked the hymns?

Moore states that “The notion of him ‘joining in with the singing’ of gospel hymns from his bedroom window is preposterous.” The hymns in question were by I D Sankey, a close associate of D L Moody. Darwin will have been aware of Moody and Sankey’s campaign in London in 1875, and in 1881 they were gain in the news for a campaign in Scotland. Fegan was using these hymns, and states that sometimes members of the Darwin family actually attended his services in the schoolhouse.¹¹⁰ In view of Darwin’s support it seems very likely that he himself had attended, and would indeed have heard the new hymns. It would be very likely that Darwin would express a preference for some of these rather more lively hymns to a personable young Lady whom Darwin knew to be associated with the group from whom these hymns sprang. Many agnostics enjoy hearing sacred music,¹¹¹ and Darwin does not actually say (in Lady Hope’s own version as against the newspaper article) that he will join in – just that he likes to hear them. In her account it was not a bedroom window, and Darwin might well have heard a group gathered around the summer house. Darwin probably didn’t actually use the words “dronery ones” – But Lady Hope admits she cannot quote verbatim.

What about the “Summerhouse”?

There *was* a summerhouse at the end of his favourite walk, and it *was* visible from the house. It was, however, small and dilapidated. There are several possibilities on this:

- ❖ Maybe Lady Hope misremembered, confusing “Schoolhouse” and “Summerhouse” (which may both have been mentioned during the conversation).
- ❖ Maybe Darwin himself was muddled, or was meaning that thirty people had gathered around it at some point

None of this makes the visit implausible, or the substance of her account fictitious.

Would Darwin have renounced his earlier views?

As it stands the wording of her account seems odd. It sounds almost as though Darwin had had a few wild ideas about evolution when young, but hadn’t thought much about it in recent years and had lost interest and regretted it all. In fact this was 1881 and his two books *The Descent of Man* (1871) and *The Expression of Emotions in Man and Animals* (1872) were published only a decade earlier when Darwin was over 60. Darwin would hardly have described their major themes as the immature and now rejected ideas thoughtlessly expressed when he was “young”. Darwin had been actively and openly supporting evolution continuously since 1858.



Darwin’s Gardens From House

¹¹⁰ Litchfield (1915) ii p. 244; cited in Croft (1989) p. 116

¹¹¹ I have atheist colleagues who will lustily sing Christmas carols or in *the Messiah* if required.

Although the wording is odd (and she disclaims verbatim memory), it is noteworthy that Darwin does *not* actually renounce evolution. Darwin simply says he regrets what some people have done with some of his carelessly expressed ideas in making them into a religion. Now this is much more likely for two reasons. Firstly, Darwin always insisted that his evolutionary views were compatible with some kind of Christian belief – ie they were *not* an alternative religion. Secondly, if this visit occurred, we remember, it was very soon after the visit of the militant (and anti-establishment) figure Aveling who had indeed transformed Darwinism into a religion and one which Darwin felt uneasy with. Darwin had only a few weeks earlier written to Aveling remarking (as we noted) that he could hardly stop writers from taking his words to a greater extreme than was safe. Darwin was plainly uneasy about such militant atheists using him as a founding or guru figure, and may well have regretted some of his earlier expressions. Was Charles also partly trying to reassure his wife Emma, sitting in the room (as etiquette dictated almost certainly she would be) for the visit? This was no wholesale renouncement of evolution, but a regret at the religious (and anti-establishment) misuse of his science. Lady Hope does *not* suggest either that Darwin renounced evolution, or that Darwin professed some kind of “conversion”. She merely says Darwin regretted some expressions of his theories.

It should, in any case, be reiterated that it would not have occurred to him that a theory of evolution was incompatible with Christian belief.¹¹² His leading American ally and supporter Asa Gray was an evangelical Presbyterian, and a number of theologians (including some conservative ones) had accepted the probability of evolution. Even just a few weeks before her visit, Darwin was lauding William Graham’s reconciliation of the two (though not himself convinced). The notion that biblical creation and evolution are *alternatives* may be rife in modern America, but it was not assumed in 1881. Darwin’s strongest critics (eg Sedgwick or Hodge – or even the later W J Bryan) objected to the materialism particularly as applied to human evolution. They did *not* object to evolution as such (even though some regarded it as scientifically unlikely). Darwin would, of it would have seemed to him absurd to suppose that this would involve renouncing evolution itself rather than just some of his materialistic assumptions.

The Family’s Reaction

If a conversation took place anything like the one Lady Hope described, Emma would surely have thought it embarrassing. This is not (as Moore hints) because she would have objected to personal evangelizing, and in any case there is no hint that Lady Hope attempted to “evangelise” Charles. It is more likely (as already suggested) that Charles may have got a bit carried away and OTT in the quest to be pleasing to this charming youngish Lady, and Emma knew that Darwin was still a firm if muddled agnostic. A discreet silence over the visit, but distinct dropping of the idea of Lady Hope taking meetings (made unnecessary by the return of Fegan very shortly afterwards) was very likely. We can also understand the fury of the remaining Darwins when, post-1915, rumours of Lady Hope’s encounter reached them. They would have found palatable neither the prospect of their Dad having made a bit of a fool of himself with a young woman, nor the ludicrous suggestion that Darwin had renounced his science which was what some were drawing from Lady Hope’s words.

Other Accounts of Lady Hope’s Visit

Even Lady Hope’s own account (as we have repeatedly noted) disclaims verbatim reporting, and is likely to have a perspective. Other second and third hand versions of it are likely to be less accurate still. Croft and Moore give a number of these. What is remarkable is that the more careful and first hand reports of her story fully back the above interpretation. Thus eg the letter of a high ranking Salvation Army officer F B Tucker says:

¹¹² He wrote this to an enquirer in 1879 cf F Darwin (1887) vol 1 p. 307.

Lady Hope was conducting meetings in the village shortly before Mr Darwin's death. She visited him in his home, and he said that he was very pleased to hear about her meetings. She expressed surprise, seeing that she had always understood that he held contrary views. He replied that a great deal more had been made of some of his views than he had ever intended, and that there was nothing like the Gospel – or words to that effect. Turning to the Bible, which was open before him, he referred to the wonderful depth and beauty of the Epistle to the Hebrews from which he was then reading. The above is, of course, quite different from the 'highly coloured' story which Mrs Litchfield contradicts. Lady Hope can hardly be held responsible for the embellishments of newspaper reporters, but one can scarcely believe that the facts as stated above can be pure fabrication...¹¹³

We may note again the "or words to that effect" – neither he nor Lady Hope claimed verbatim quotation. Again there is nothing beyond an expression of regret at the way some of his ideas have been used, and a declaration of the beauty/grandeur of the Hebrews Epistle.

In a letter from Annette Parkinson Smith to W J Bryan (June 12th 1922), we find a fair similarity to the letter of Lady Hope (who was now dead). Smith asserts that Lady Hope believed Darwin to have repudiated his theories (which is just possible though unlikely), but adds that Emma Darwin was present but unenthusiastic about a gospel meeting in the summer house (which would be plausible enough if she knew very well that the summer house was much too small to take 30 and was falling down, ie that Darwin was confused). Smith also suggests that two visits took place – which, again, is just about possible. It is also possible if not probable that in some respects Smith misunderstood Lady Hope.¹¹⁴

It is worth finally mentioning a different account, which may possibly relate to the Lady Hope story. A report appeared in the *Bromley and Kentish Times* in November 1958, dependent on one A H Nicholls who was converted by Fegan in 1881 and lived in Downe. One of his friends (Leonard Fawkes) sent the (now third hand) account as follows:

the lady who had nursed Darwin... who had been in attendance on Darwin prior to his death had informed him that he requested her to read the New Testament to him, and asked her to arrange for the Sunday School children to sing 'There is a green hill far away.' This was done and Darwin who was greatly moved said: "how I wish I had not expressed my theory of evolution as I have done... Knowing Mr. Nicholls as I did, I have no hesitation in believing that Darwin, like many of our wise men, found the simple Gospel of Jesus Christ more satisfying than evolution."

Moore thinks that this "lady" was Lady Hope, though I tend to agree with Croft that this is unlikely. What is extraordinary is that even in this garbled, third-hand, account, nearly eighty years later, all the actual story indicates is a liking for Sankey hymns and a regret at the way his theory had been used – only the third hand comment seems to have him choosing between the "simple Gospel" and evolution.

Assessing The Analyses

Moore's tendency to exaggerate Lady Hope's inaccuracies has been noted, but in general he seems right in supposing that the visit(s) did take place but involved no eleventh-hour conversion. Croft, in contrast, seems to clutch at straws to reach impossible conclusions about an eleventh hour conversion. He suggests that the fact that Darwin's Butler Joseph Parslow speaks of nursing him meant "a deep bond between them transcending that of a servant to his master" and suggesting that

¹¹³ Printed in *The Christian* 9 March 1922.

¹¹⁴ As a good example of this, in summer 2001 I sent an electronic "who is he" blurb on myself to *Soul Survivor* stating that "He has conducted seminars at Word Alive". It appeared as "He conducts seminars at Word Alive". This subtly turned two seminars into a regular occurrence – the "rewriter" (who also changed the spelling of my name) clearly unaware that the meaning had actually altered. This kind of thing happens all the time – there is nothing either sinister or unusual about it, and Lady Hope's story plainly suffered much more change from enthusiastic retellers.

Darwin's "deep respect" for his butler would surely mean that Darwin was "influenced". This is a bizarre argument. Darwin hardly ever mentions Parslow, and his deep forty-year love for Emma would certainly have been a far more powerful stimulus than the conversion of a probably uneducated and possibly formerly inebriate servant. Darwin knew that Fegan's preaching *worked*, what Darwin did not accept was that it was *true*. Then Croft suggests that the vague quotation made in 1958 as above from Nicholls is "one further piece of information which should be sufficient to dispel any remaining doubt". Having quoted it he says:

We now have two independent accounts that support the fact of Darwin's conversion. How can biographers continue to pervade it as a myth "Fabricated in the USA"?

Now since neither Lady Hope nor Nicholls claim that Darwin was converted, this conclusion seems very bizarre. Finally, Croft suggests that

There can be little doubt that towards the end, Charles Darwin underwent a spiritual renewal. Even Emma became aware of a change in his personality... in his last months he had become "more tenderly regardful" of those around him... this would also explain why, after his death, the family went through his private papers, erasing many of the anti-Christian statements he had earlier made.

This again seems a bizarre claim. Darwin's grandfatherly and gentle air had long been noted, and the suggestion that some amount of increased tenderness in a final illness must always be due to conversion is demonstrably untrue. The knowledge that one is soon to part from loved ones forever can well make an agnostic as family orientated as Darwin "more tenderly regardful" without implying any kind of religious conversion.

So then, does Croft think Emma knew and concealed the "conversion", or that she did not know? I am not sure. He implausibly cites Francis Darwin's assertion that "Darwin spoke little on these subjects..." to mean that Darwin "was reticent in discussing religion with his family". It actually neither means nor implies such thing. Croft then suggests that

it may well be that he could reveal his innermost feelings on his renewed faith more easily with a relative stranger, such as Lady Hope, or one of his servants. Darwin's family may, therefore have not been cognizant of the extent of his conversion.

It beggars belief to even suggest that Darwin would conceal any such "conversion" or "spiritual renewal" from the one in the whole world to whom Darwin would have most longed desperately to tell it, and tell it to a passing stranger (with his wife Emma in any case almost certainly sitting in at the meeting). However, Croft then goes on to suggest that

If one accepts Lady Hope's account, one must also presumably accept the accompanying claim that Darwin recanted his evolution theory...

Lady Hope, of course, said no such thing in any case, but once again the suggestion is absurd. Just weeks earlier Darwin was praising the work of Graham who robustly claimed that Christian faith was compatible with an evolutionary theory. He need not have recanted his theory even had Darwin experienced a full charismatic conversion complete with prophecy and speaking in tongues.

Finally (and by now we are totally confused about whether Croft thinks Darwin's family knew or not) Croft suggests that a conversion would explain the family censorship in his papers of "anti-Christian statements he had earlier made". In reality one need look no further that the sensibilities of a devout and grieving wife and daughter, and the fact that his autobiographical sketch had been intended for his family and not publication in the first place.

No one doubts the sincerity of L R Croft, but his conclusions in this book appear to be so wildly implausible, that it simply helps to explain why so many other newspapers and third hand reports saw only what they wanted to see and built up the tale of an eleventh-hour conversion.

Conclusion

Charles Robert Darwin was brought up as an Anglican with Unitarian leanings. At Edinburgh 1825-27 Darwin was well aware of the materialist controversies, but at Cambridge 1827-31 Darwin was fairly orthodox in Christian beliefs, though not naturally pious, and he assented to the 39 Articles of the Church of England when he graduated. On the Beagle he read the Bible and remained fairly orthodox, though was having more doubts. Any Christian belief waned after 1836 with a rising deterministic materialism, and after 1851 Darwin no longer even believed in a benevolent God. Darwin remained some kind of theist/deist until the 1860's, after which Darwin was self-confessedly muddled but belief in God further waned. Darwin thought to the end that evolution was compatible with some kind of Christian belief, but Darwin certainly had no eleventh hour conversion, nor personal spiritual renewal. Darwin died in 1882 as an agnostic, sorrowfully parting from his beloved and devout wife Emma, in a separation which both of them (for different reasons) believed to be final.

Bibliography

- Barlow, Nora (ED) *The Autobiography of Charles Darwin* (1958) Collins
- Bartholomew, M (1973) "Lyell and Evolution" *British Journal for the History of Science* Vol 6:23 (1973) p. 266
- Bartholomew, Michael (1980) 'The Singularity of Lyell' *History of Science* (1980) pp. 276-293
- Bole, S J (1940) *Battlefield of Faith*
- Bowler, Peter (1976) *Fossils and Progress* Science History Pub
- Bowler, Peter (Pb Edn. 1992) *The Eclipse of Darwinism* John Hopkins
- Bowler, Peter (1984) *Evolution: The History of an Idea* U of Ca Pr
- Browne, Janet (1995) *Charles Darwin, Voyaging* Pimlico
- Bryan, William Jennings (1921) *The Bible and Its Enemies* Chicago Bible Inst.
- Buckland, William (1820) *Vindiciae Geologicae* OUP
- Buckland, William (1823) *Reliquiae Diluvianae* John Murray
- Buckland, William (1836) *Geology and Mineralogy Compared with Reference to Natural Theology* Pickering
- Buffon, G I (1778) *Epoques de la Nature*
- Cannon, S F (1978) *Science in Culture* Dawson
- Clark, J W & Hughes T M (1890) *The Life and Letters of Adam Sedgwick* 2 Vols CUP
- Croft, L R *The Life and Death of Charles Darwin* (1989) Elmwood
- Darwin, Charles (1859) *On the Origin of Species* Murray [also 6th Edition 1872]
- Darwin, Charles (1871) *The Descent of Man and Selection in Relation to Sex* Murray
- Darwin, Charles (1872) *The Expression of the Emotions in Man and Animals* Murray
- Darwin, Francis (1887) *The Life and Letters of Charles Darwin* London
- Dawkins, R (1989) *The Selfish Gene* (2nd Edn.) OUP
- Dawkins, R (1995) *River Out of Eden* Penguin
- Dawkins, R (1986) *The Blind Watchmaker* Penguin
- Dawkins, R (1996) *Climbing Mount Improbable* Penguin
- Dawkins, R (1998) *Unweaving the Rainbow* Penguin
- Deluc, Andre (1809) *An Elementary Treatise on Geology*
- Dennett, Daniel (1991) *Consciousness Explained* Penguin
- Dennett, Daniel (1995) *Darwin's Dangerous Idea* Penguin

- Dennett, Daniel (1996) *Kinds of Minds* Weidenfeld
- Desmond, A (1982) *Archetypes and Ancestors* Blond & Briggs
- Desmond, A (1969) *The Politics of Evolution* U of Chicago Pr
- Desmond, A (1994) *Huxley* Michael Joseph
- Desmond, A & Moore, James R (1992) *Darwin* Michael Joseph
- Faber, G S (1823) *Genius and Object*
- Forster, Roger and Marston, Paul (1989) *Reason and Faith* Monarch
- Forster, Roger and Marston, Paul (1999) *Reason, Science and Faith* Monarch
- Gale, Barry (1982) *Evolution Without Evidence* Univ of New Mexico Pr
- Gillispie, Charles C (1951) *Genesis and Geology* Harper & Row
- Gordon, E O (1894) (Ed), *The Life and Correspondence of William Buckland*
- Gosse, P H (1857) *Omphalos*
- Gray, Asa (1861) *Natural Selection...* Trubner
- Gray, Asa (1880) *Natural Science and Religion* Scribner
- Herschel, John (1831) *A Preliminary Discourse on Natural Philosophy*
- Himmelfarb, Gertrude (1959) *Darwin and the Darwinian Revolution* Norton
- Hodge, Charles (1974) *What is Darwinism?* Scribner
- Hutton, James (1788 & 1795) *Theory of the Earth*
- Lhwyd, E (1699) *Lithophylactii Britannici Ichnographia*
- Lister, M (1688) *Conchites* London
- Litchfield, Henrietta (1915) *Emma Darwin: A Centuury of Family Letters 1792-1896* Murray
- Livingstone, David (1987) *Darwin's Forgotten Defenders* Eerdmans/Scottish Academic
- Marston, Paul (1980) *The Biblical Family* Cornerstone
- Marston, Paul (1984) *Science, Methodology and Religion in the Work of Adam Sedgwick* PhD Thesis Open University
- Marston, Paul (1984) *God and the Family* Kingsway
- Miller, Hugh (1849) *Footprints of the Creator*
- Miller, Hugh (1857) *The Testimony of the Rocks* (1st Edn. 1849)
- Moore, James (1995) *The Darwin Legend* Hodder
- Morris H M (1984) *A History of Modern Creationism* Master
- Morris H M (1984b) *A Biblical Basis for Modern Science* Baker
- Morris, H M and Whitcomb, John C (1961) *The Genesis Flood* Baker
- Mortensen, T J (1996) *British Scriptural Geologists in the First Half of the Nineteenth Century* PhD Thesis Coventry University/Wycliffe Hall
- Paley, William (1799) *Evidencs for the Christian Religion*
- Paley, Wiliam (1802) *Natural Theology*
- Pearce, E K Victor (1993) *Evidence for Truth: Science* Evidence Programmes
- Pember, G H (1876) *Earth's Earliest Ages*
- Porter, R (1977) *The Making of Geology* CUP
- Porter, R (1976) 'Charles Lyell and the Principles of the History of Geology', *British Journal for the History of Science* (1976), ix, 2, 32 9 91- 10 3
- Ray, John (1691) *The Wisdom of God Manifested in the Works of Creation*
- Ray, John (Tr 1876) *Reflections on the Study of Nature*
- Robertson, J (ed) (1905) *The Philosophical Works of Francis Bacon* Routledge
- Rudwick, M (1972) *The Meaning of Fossils* Elsevier
- Rudwick, M (1977) 'Lyell's Chronological Model', *ISIS* (1977) 9 2439 440-3,

- Rudwick, M (1974) 'Charles Lyell and His London Lectures on Geology', *Royal Society Notes and Records* (1974), 29, 231-263
- Rudwick, M (1982) 'Charles Darwin in London: The Integration of Public and Private Science', *ISIS* (1982), 73
- Russell, Colin A (1983) *Science and Social Change 1700-1900* Macmillan
- Russell, Colin A (1985) *Crosscurrents* IVP
- Secord, James A (1991) 'The discovery of a vocation: Darwin's early geology' *BJHS*, 1991, 24, 133-157
- Smith, John Pye (1839) *On The Relation Between the Holy Scriptures and Some Parts of Geological Science*
- Stillingfleet, E (1662) *Origines Sacrae*
- Taylor, Ian (1991) *In the Minds of Men* TFE (3rd Edition)
- Thackeray, A & Morrell, F J (1981) *Gentlemen of Science* Clarendon
- Toon, P (1979) *Evangelical Theology 1833-1856* Marshall,
- Torrey, R A (1907) *Difficulties in the Bible* Moody
- Wesley, John (1872 Ed) *Works* (Repr. (1986) Hendrickson)
- Whewell, William (1840) *The Philosophy of the Inductive Sciences*
- Whiston, William (1696) *A New Theory of the Earth*
- Young, Davis A (1992) *Christianity and the Age of the Earth* Zondervan
- Young, Davis A (1995) *The Biblical Flood* Eerdmans
- Young, Davis A (1987) 'Scripture in the Hands of the Geologists', *Westminster Theological Journal* (1987), 49, 1-34, 257-304