

**In memory of Michael Wills (1944 – 2008)
whose favourite book was Charles Darwin's
*Origin of Species***

**2009 marks the 200th anniversary
of the birth of Charles Darwin,
and the 150th anniversary
of the publication of the
*Origin of Species***



Sculpture of Charles Darwin as a young man, created by Anthony Smith, as part of the College's celebrations.

Introduction: Charles Darwin (1809-1882)

To many people, the name Charles Darwin evokes an image of the stereotypical Victorian scientist; a learned old man with a beard. While to an extent true, it is important not to forget that the famous voyage of *HMS Beagle*, during which time Darwin began to formulate his theories of natural selection, commenced in 1831, when Darwin was only twenty-two years of age. The Darwin who accompanied captain Robert FitzRoy on surveys of South America, the Galapagos and Pacific Islands was a young man, recently graduated from Cambridge, full of enthusiasm for the investigation of the world around him.

This was the same young man who, while studying here at Christ's College, participated fully in the life of a student. From Darwin's letters and diaries, many of which are included in this exhibition, we learn of his struggles with exams, his adventures with the 'Glutton Club', and his exploits riding, shooting wildfowl, and 'beetling' in the nearby fens. It was here in Cambridge that Darwin's lifelong passion for botany was ignited, and here that his interest in geology was aroused.

It is fitting, therefore, that as well as celebrating the works of the seasoned scientist, we should remember Charles Darwin as a young man. The Old Library and College archives contain some unique documents covering Darwin's time at Cambridge, the *Beagle* voyage, and his family connections (many of which relate to the College), and a comprehensive range of books that he published throughout his life time.

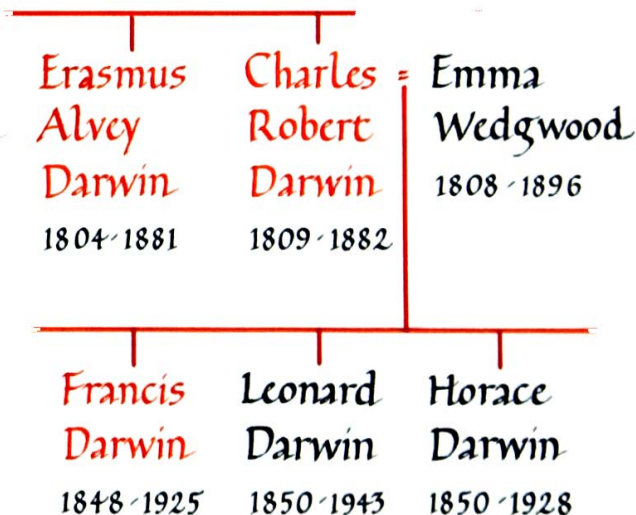
Chronology of Darwin's Life

1809, 12 th February	Charles Darwin born in Shrewsbury, the son of Robert Waring Darwin and Susannah, nee Wedgwood.
1818	Susannah Darwin dies.
1825, 22 nd October	Matriculates at the University of Edinburgh.
1827	Leaves Edinburgh in April. Admitted to Christ's College on October 15 th .
1828	Becomes friendly with his cousin William Darwin Fox at Christ's. Attends John Stevens Henslow's botany classes.
1831	Passes BA examinations on 22 January without honours and remains at Cambridge for a further two terms to fulfil residence requirement. Invited by Henslow to join the <i>Beagle</i> voyage in August.
1832 - 1836	Voyages on board <i>HMS Beagle</i> .
1838, 11 th November	Proposes marriage to his cousin Emma Wedgwood.
1839, 29 th January	Marries Emma Wedgwood. First child, a son William, born later in the year.
1842	Settles with his wife and family in Down House, Kent. <i>The structure and distribution of coral reefs</i> published.
1844	<i>Geological Observations on the Volcanic Islands visited during the Voyage of HMS Beagle</i> published.
1846	<i>Geological Observations on South America</i> published.
1848 November	Robert Waring Darwin dies.
1851	Eldest daughter Annie dies, aged ten.
1856	On Charles Lyell's advice begins writing up his views for a projected work called <i>Natural Selection</i> .
1859, 24 th November	<i>On the Origin of Species by means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life</i> is published in London by John Murray.
1864, November	Awarded the Copley medal of the Royal Society of London.
1868	<i>The Variation of Animals and Plants Under Domestication</i> published.
1871	<i>The Descent of Man, and Selection in relation to Sex</i> published.
1872	<i>The Expression of the Emotions in Man and Animals</i> published.
1877	Awarded Honorary LLD from Cambridge University.
1882	Dies 19 April, aged seventy-three. Buried in Westminster Abbey, 26 April.

The Darwin Family Tree

Charles Darwin belonged to a prominent English family, descended from Erasmus Darwin and Josiah Wedgwood, which has produced at least ten Fellows of the Royal Society. Commissioned specially for this bicentenary year, the Darwin family tree marks the start of our exhibition. Also on display is the family tree of the Fox family, showing William Darwin Fox, Charles' cousin and close friend at Christ's College.

1. The Darwin Family Tree.
(Specially Commissioned, 2009)
2. *The Fox Family Tree*
Parchment original. Kindly loaned by Mr. Gerald Crombie.

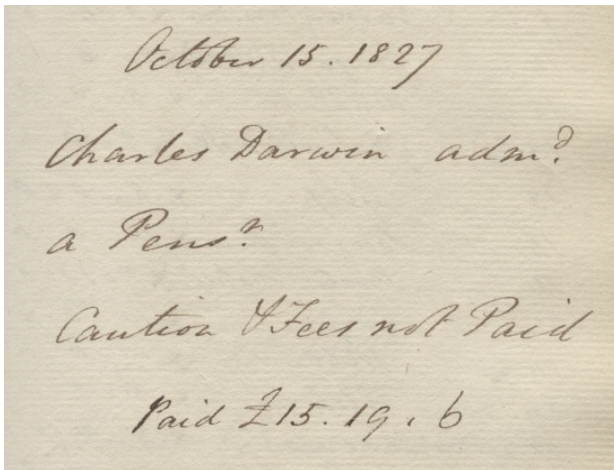


*Extract from the Darwin family tree
(exhibit no. 1).*

Darwin at Christ's College

“Upon the whole, the three years I spent at Cambridge were the most joyful of my happy life.”

The Darwin family had long been associated with Christ's College when Charles was admitted as a pensioner in 1827. Both his elder brother Erasmus and second-cousin William Darwin Fox also studied here at Christ's, and the young Darwin became firm friends with his cousin.



October 15. 1827
Charles Darwin adm?
a Pens?
Cautions & Fees not Paid
Paid £15. 19. 6

Darwin's entry in the Christ's College Admissions Book,
October 15th, 1827 (exhibition no. [?]).

3. **Christ's College Admissions Book, 1815-1828.**

Christ's College Archives T1.4

4. **Christ's College Students' bills, 1821-1832.**

Christ's College Archives T.11.25

5. Letter from Charles Darwin to William Darwin Fox.
[12] June 1828, from Shrewsbury. 4 pp. (1 bifolium).
MS. Fox 1
6. Letter from Charles Darwin to William Darwin Fox.
[30 June 1828], from Shrewsbury. 4 pp. (1 bifolium).
MS. Fox 2
7. Letter from Charles Darwin to William Darwin Fox.
[8 October 1830 (postmark)], from Cambridge. 4 pp. (1 bifolium).
MS. Fox 33
8. Letter from Charles Darwin to William Darwin Fox.
12 May 1831, from Cambridge. 4 pp. (1 bifolium).
MS. Fox 40
9. Facsimile of final examinations sat by Darwin for the fifth and sixth
classes of the poll degree, Jan. 14th- 20th, 1831.
University of Cambridge.

“The logic of ... Natural Theology gave me as much delight as did Euclid”

At the time that Darwin came to study here, the University curriculum covered natural and moral philosophy and classics, with the aim of preparing young men for politics, for the bar, or, as in Darwin's case, for the Church.

10. *Christ's College Examination papers 1824-1836.*
11. Simson, Robert (1687-1768)
The elements of Euclid. (London: Printed for F. Wingrave, F.C. & J. Rivington [et al.], 1814)
L.5.24
12. Darwin, Charles (1809-1882)

Charles Darwin: his life told in a autobiographical chapter, and in a selected series of his published letters, edited by his son, Francis Darwin.

(London: John Murray, 1908)

O.14.35

13. Darwin, Charles (1809-1882)

More letters of Charles Darwin: a record of his work in a series of hitherto unpublished letters, edited by Francis Darwin and A.C. Seward.

2 volumes. (London: John Murray, 1903)

O.13.6-7

14. Darwin, Charles (1809-1882)

The autobiography of Charles Darwin, 1809-1882: with original omissions restored, edited with appendix and notes by his grand-daughter Nora Barlow.

(London: Collins, 1958)

O.13.11

Also displayed in this exhibition are maps of Cambridge and the surrounding county, as the young Darwin would have known them. The map of the city has been specially commissioned, based upon contemporary sources including Baker's map of 1830. The map of the county of Cambridgeshire is an original (c. 1805) by the celebrated English cartographer, John Cary.

15. Cary, John (c.1754 – 1835)

A new map of Cambridgeshire : divided into hundreds, exhibiting its roads, rivers, parks &c.

(London: 1805)

Other Sciences

Charles Darwin was more than simply 'a scientist'; he was a botanist, a naturalist, a geologist, an entomologist, a perceptive and diligent observer and recorder of the world around him, and, perhaps above all else, an obsessive collector. Darwin wrote on many different subjects, from vegetable mould to animal expressions, His work challenged accepted scientific thought, becoming a crucial factor in the intellectual, social and religious transformations that took place in the West during the nineteenth century. A selection of his published works are displayed here, alongside works by other influential figures in the field.

16. Darwin, Charles (1809-1882)
The descent of man, and selection in relation to sex.
Second edition. (London: John Murray, 1874)
O.13.16
17. Darwin, Charles (1809-1882)
The different forms of flowers on plants of the same species.
(London: John Murray, 1877)
O.14.5
18. Darwin, Charles (1809-1882)
The effects of cross and self fertilisation in the vegetable kingdom.
(London: John Murray, 1876)
O.13.23
19. Darwin, Charles (1809-1882)
The expression of the emotions in man and animals.
(London: John Murray, 1873)
O.13.18

20. Darwin, Charles (1809-1882)
The formation of vegetable mould through the action of worms with observations on their habits.
(London: John Murray, 1881) O.13.25
21. Darwin, Charles (1809-1882)
Insectivorous plants.
(London: John Murray, 1875) O.14.6
22. Darwin, Charles (1809-1882)
The movements and habits of climbing plants.
Second edition. (London: John Murray, 1875) O.13.21
23. Darwin, Charles (1809-1882)
The power of movement in plants, assisted by Francis Darwin.
(London: John Murray, 1880) O.13.22
24. Darwin, Charles (1809-1882)
The variation of animals and plants under domestication.
Second edition. 2 volumes. (London: John Murray, 1875) O.14.2-3
25. Darwin, Charles (1809-1882)
The various contrivances by which orchids are fertilised by insects.
Second edition. (London: John Murray, 1882) O.13.24
26. Darwin, Charles (1809-1882)
Queries about expression for anthropological enquiry.
In: Annual report of the Board of Regents of the Smithsonian
Institution ... 1867
(Washington DC: Government Printing Office, 1868) O.11.16a

Commemoration and Celebration

Darwin fundamentally altered the accepted view of mankind's position in the world. From the publication of the *Origin* to the present day, Darwin's work has been contested and criticised, accepted and acclaimed, in almost equal measure. As we mark the 200th anniversary of his birth, we also look back to previous celebrations of his life and work. On display here are a selection of commemorative memorabilia, giving an indication of the strength of Darwin's influence.

27. ***The Darwin-Wallace celebration held on Thursday, 1st July, 1908, by the Linnean Society of London.***
(London: Linnean Society, 1908)
0.13.8
28. British Museum (Natural History). Special guide No. 4.
Memorials of Charles Darwin. A collection of manuscripts, portraits, medals, books ... to commemorate the centenary of his birth and the fiftieth anniversary of 'The Origin of Species'.
(London: Printed by order of the trustees of the British Museum, 1909)
29. Shipley, Arthur E.
Charles Darwin [Lecture given at Cambridge].
(Cambridge: University Press, 1909)
30. Christ's College Magazine, Easter Term, 1909.
Darwin Centenary number. Vol.XXIII, no.70
(Cambridge: Printed for the Editors at the University Press, 1909)
0.13.28.1a
31. Rutherford, H.W. (introduction by Francis Darwin)
Catalogue of the library of Charles Darwin.
(Cambridge: University Press, 1908)
0.13.271

Darwin at sea – the *Beagle*

“ ... you are the very man they are in search of ... ”

In 1831, Darwin joined *HMS Beagle* as a naturalist, upon the recommendation of his Cambridge professor of botany, John Stevens Henslow. The voyage had a profound influence upon Darwin's life and science; his thoughts were meticulously recorded in his journals and letters, many of which are still held by the college.

32. Darwin, Charles (1809-1882)

The structure and distribution of coral reefs: being the first part of the geology of the voyage of the Beagle, under the command of Capt. Fitzroy, R.N. during the years 1832 to 1836. (London: Smith, Elder & Co., 1842)

BB.5.4

33. Darwin, Charles (1809-1882)

Geological observations on coral reefs, volcanic islands, and on South America: being the geology of the voyage of the Beagle, under the command of Captain Fitzroy, R.N., during the years 1832 to 1836, [by] Charles Darwin, naturalist to the expedition. (London: Smith, Elder & Co., 1851)

O.13.1

34. Darwin, Charles (1809-1882)

Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. Beagle round the world, under the command of Captain Fitz Roy, R.N. Second edition. (London: John Murray, 1876)

O.14.8

35. King, Philip Parker (1793-1856)
Narrative of the surveying voyages of His Majesty's ships Adventure and Beagle, between the years 1826 and 1836, describing their examination of the southern shores of South America, and the Beagle's circumnavigation of the globe. [by Philip King, Robert Fitzroy, and Charles Darwin]. 3 volumes.
(London: Henry Colburn, 1839)
BB.5.1-3
36. Charles Darwin to William Darwin Fox [letter].
May 1832, from Botofogo Bay, near Rio de Janeiro. 4 pp. (1 bifolium).
MS. Fox 46
37. Charles Darwin to William Darwin Fox [letter].
23 May 1833, from Maldonado, Rio Plata. 4 pp. (1 bifolium).
MS. Fox 46b
38. Charles Darwin to William Darwin Fox [letter].
25 October 1833, from Buenos Aires. 4 pp. (1 bifolium).
MS. Fox 46b

“I have always felt that I owe to the voyage the first real training or education of my mind ... Everything about which I thought or read was made to bear directly on what I had seen and was likely to see; and this habit of mind was continued during the five years of the voyage. I feel sure that it was this training which has enabled me to do whatever I have done in science”

The autobiography of Charles Darwin, 1809-1882

The Origin of Species

No book has changed our understanding of ourselves more than Darwin's *Origin of Species*. It caused a sensation from its first day of publication in 1859, and went on to become an international best-seller. The idea that living things gradually evolve through natural selection profoundly shocked its Victorian audience, calling into question what had for many been the unshakeable belief that life on Earth was created by a divine being.

39. Darwin, Charles (1809-1882)

On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life.

(New York: Heritage Press, 1963)

40. Darwin, Charles (1809-1882)

The foundations of the origin of species: two essays written in 1842 and 1844, edited by his son Francis Darwin.

(Cambridge: University Press, 1909)

O.13.2

41. Darwin, Charles (1809-1882) and Wallace, Alfred.

On the tendency of species to form varieties; and on the perpetuation of varieties and species by natural means of selection.

In: Journal of the Proceedings of the Linnean Society, Zoology, vol. III.
(London: Longman, Brown, Green [et al.], 1859)

BB.5.12

42. ***A critical examination of some of the principal arguments for and against Darwinism.***

(London: Edward Bumpus, 1876)

O.14.13

43. Suckling, H.J.
Anti Darwin.
Second edition. ([Twickenham]: Ward and Downey, 1888)
BB. 5.15
44. Wallace, Alfred Russel (1823-1913)
Darwinism: an exposition of the theory of natural selection with some of its applications.
(London: Macmillan, 1889)
0.14.15
45. ***Man is but a worm.*** [Cartoon].
Punch, December 6, 1881.
46. Darwin, Charles (1809-1882)
On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life.
(London: John Murray, 1859)
BB.5.5



Iguana, by Michael Wood

Cambridge Connections

Throughout his life, Darwin felt a particular affection for Cambridge, but other members of his family had links to the city too. Darwin's grandfather, the poet Erasmus Darwin, studied at St. John's College, and the Cambridge Botanic Garden features in one of his poems (exhibit 47). Horace and Ida Darwin founded the Cambridge Instrument Co.

47. William Darwin Fox (1824-1826)

Diary: October 19 1824 – June 13 1825 and Account Book from ditto to October 1826. Owned by Mr. Gerald Crombie, on permanent loan to the Cambridge University Library.

Cambridge. DAR 250: 5

48. Darwin, Erasmus (1731-1802)

The botanic garden: a poem, in two parts.
(London: Printed for J. Johnson, 1795)

O.2.34

49. Fox, Julia. [Watercolours]. 28x21 cm.

- i. *Tipula crocata*, red admiral butterfly, common bee. 1828. [Cuttings book, p. 2]
- ii. Great copper butterfly, clouded yellow butterfly, *empis borealis*, *pentatoma caerulea*. 1829.
[Cuttings book, p. 5]
- iii. Eyed hawk moth. 1829.
[Cuttings book, p. 10]
- iv. Anchor faced wasp, cinnebar moth, wood leopard moth and its caterpillar. 1840.
[Cuttings book, p. 9]

Lent by Mr. and Mrs. Crombie

Darwin's Influence

One hundred and fifty years after its publication, Darwin's *Origin of Species* is as widely acclaimed as ever, and continues to influence scientific thought. Some of the most recent editions of Darwin's work are on display, along with facsimiles of texts from Darwin's youth – books on botanical illustration, for example, from which Charles and his siblings would have used to refine their artistic skills.

50. Van Wyhe, John.

Darwin.

(London: Andre Deutsch, 2008)

51. Larkum, Anthony.

A natural calling: life, letters and diaries of Charles Darwin and William Darwin Fox.

(Berlin: Springer Verlag, 2009)

52. Brookshaw, George.

A new treatise on flower painting, or every lady her own drawing master.

(London: Printed for Longman, Hurst [et al.], 1818) Facsimile.

53. Blunt, Wilfrid and Stearn, William T.

The art of botanical illustration.

New edition. (Woodbridge, Suffolk: Antique Collectors' Club in association with the Royal Botanic Gardens, Kew, 1994)

(2000 reprint)

54. Darwin, Charles (1809-1882)

The expression of the emotions in man and animals and The autobiography.

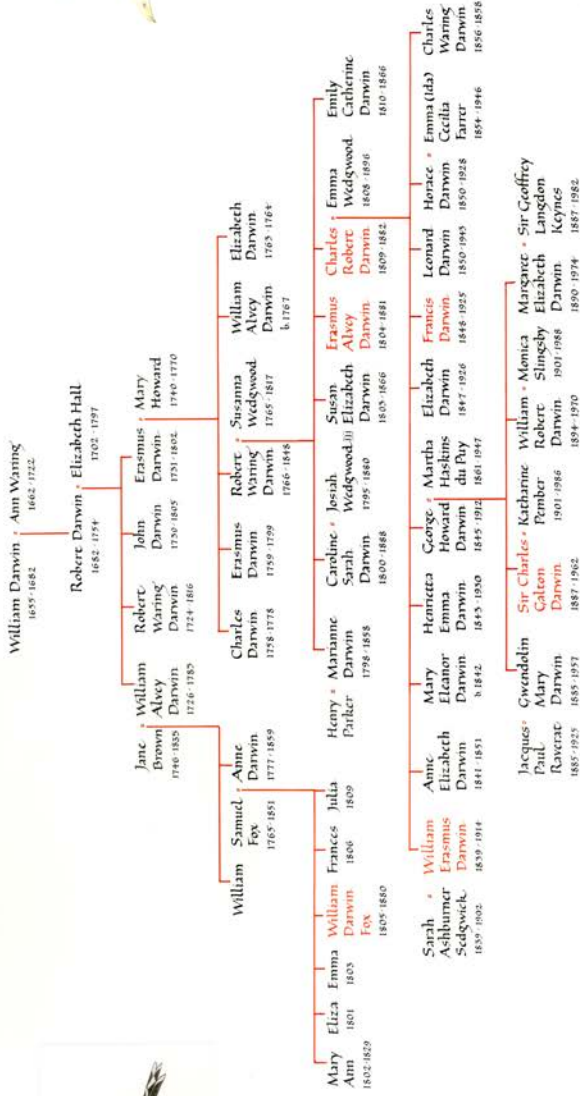
(London: Folio Society, 2008)

55. Darwin, Charles (1809-1882)
On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life.
(London: Folio Society, 2006)
56. Darwin, Charles (1809-1882)
Journal of researches into the natural history and geology of the countries visited during the voyage of H.M.S. Beagle round the world under Captain Fitz Roy, R.N.
(London: Folio Society, 2003)
57. Darwin, Charles (1809-1882)
The descent of man and selection in relation to sex.
(London: Folio Society, 2008)
58. Stephens, James Francis (1792-1853)
The nomenclature of British insects.
(London: Baldwin and Cradock, 1829)
(Facsimile reproduction)



A family tree for Charles Darwin

showing family members connected with Christ's College



'Whilst this planet has gone cycling on according to the fixed law of gravity from so simple a beginning endles forms most beautiful and wonderful have been and are being evolved'

From 'On the Origin of Species' by Charles Darwin



'We must, however, acknowledge, as it seems to me that Man, with all his noble qualities, still bears in his bodily frame the indelible stamp of his lowly origin.'

From 'The Descent of Man' by Charles Darwin

