

Darwin in Cambridge

John van Wyhe
Bye-Fellow of Christ's College

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



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2009

Christ's College



Chalk and water-colour drawing of Charles Darwin in 1840 by George Richmond. Reproduced courtesy of the Darwin Heirlooms Trust.

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*In memory of Professor Malcolm Bowie FBA (1943–2007),
Master of Christ's College 2002–2006.*

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Preface

Charles Darwin was an undergraduate at Christ's College from 1827 until 1831. His second cousin William Darwin Fox was already at Christ's, and introduced Darwin to beetle collecting, and to John Stevens Henslow. Darwin's life in Cambridge is here reconstructed, from widely scattered sources, more completely than ever before. Here we can follow Darwin's daily life at Christ's from his attendance at lectures and chapel in the morning, riding and expeditions to the fens in the afternoons, and games of cards and social bantering in the evenings.

A few months after leaving Cambridge, Darwin received a letter from Henslow with the offer to travel on board HMS *Beagle* as a naturalist. The *Beagle* departed in late 1831. After its return in October 1836, Darwin returned to Cambridge for several months where he arranged his collections and regaled College diners with voyager's tales. In the spring of 1837 he moved to London, writing to his cousin Fox that "the only evil I found in Cambridge was its being too pleasant".

We hope this booklet gives some insight into this, the early career of the man who would transform the way we think about the natural world.

Professor Frank Kelly FRS
Master of Christ's College

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Early life 1809–1825

Charles Robert Darwin was born on 9 February 1809, the fifth of six children of a wealthy family in the small market town of Shrewsbury, Shropshire. Darwin grew up in a large comfortable house with many servants and many opportunities. His father, the portly financier and physician Robert Waring Darwin (1766–1848), was the son of the noted poet Erasmus Darwin (1731–1802). Darwin’s mother, Susannah Wedgwood (1765–1817), was the daughter of Josiah Wedgwood I, the well-known industrial potter. Darwin’s mother died when he was only eight years old. Although it has been claimed that her death profoundly affected him, there is almost no evidence of any feelings of any kind about her. In a household where he was raised and cared for by elder sisters and maidservants, his mother’s loss at such an early age was not as grave as it might otherwise seem.

Darwin was tutored at home before attending a day-school in Shrewsbury run by the Rev. George Case, minister of the local Unitarian Chapel. Until her death, Darwin’s mother took her children to the same chapel, although Charles was baptized in the Church of England- necessary for many forms of social advancement such as



Charles and Catherine Darwin c. 1816. Pastel drawing by Rolinda Sharples. Reproduced courtesy of the Darwin Heirlooms Trust.

later attendance at an English University. Darwin's free-thinking father apparently did not mind. Darwin later recalled:

By the time I went to this day-school my taste for natural history, and more especially for collecting, was well developed. I tried to make out the names of plants, and collected all sorts of things, shells, seals, franks, coins, and minerals. The passion for collecting, which leads a man to be a systematic naturalist, a virtuoso or a miser, was very strong in me, and was clearly innate, as none of my sisters or brother ever had this taste. (*Autobiography*, p. 22)

From 1818 to 1825 Darwin went to the boarding school in Shrewsbury, about a mile from the family home. It was said to be one of the best schools in England. He later recalled:

I remember in the early part of my school life that I often had to run very quickly to be in time, and from being a fleet runner was generally successful; but when in doubt I prayed earnestly to God to help me, and I well remember that I attributed my success to the prayers and not to my quick running, and marvelled how generally I was aided. (*Autobiography*, p. 25)

Darwin later felt that his time at school was wasted learning Greek and Latin classics by rote. He studied chemistry in a home laboratory in a garden "tool-house" with his elder brother Erasmus Alvey Darwin (1804–1881). The lessons he learned through carefully studying chemistry textbooks and carrying out experiments were important childhood training. He also loved reading, fishing and solitary walks.

[The chemistry] was the best part of my education at school, for it showed me practically the meaning of experimental science. The fact that we worked at chemistry somehow got known at school, and as it was an unprecedented fact, I was nick-named 'Gas.' I was also once publicly rebuked by the head-master, Dr. Butler, for thus wasting my time over such useless subjects (*Autobiography*, p. 46)

Perhaps just as beloved by Darwin was his passion for shooting partridges, pigeons, rabbits and rats. But here too an interest in natural history and systematic record keeping were evident. He loved learning about the habits and habitats of his prey, and kept an exact record of his victims by knotting a piece of string tied to a button hole. He later recalled:

One day when shooting [with friends] I thought myself shamefully used, for every time after I had fired and thought that I had killed a bird, one of the two acted as if loading his gun and cried out, "You must not count that bird, for I fired at the same time," and the gamekeeper perceiving the joke, backed them up. After some hours they told me the joke, but it was no joke to me for I had shot a large number of birds, but did not know how many, and could not add them to my list... (*Autobiography*, p. 54)

Edinburgh University 1825–1827

In October 1825 Darwin accompanied his brother Erasmus, to Edinburgh University to study medicine. Erasmus, a student at Christ's College, Cambridge since 1822, was continuing his medical studies. The instruction was through lectures and demonstrations. Darwin found the lectures "intolerably dull". Out of his own interests he also attended lectures on natural science. He praised most highly Thomas Hope's entertaining chemistry lectures, on which Darwin took copious notes which still survive. He also attended Robert Jameson's lectures on geology. Darwin later claimed that Jameson's old-fashioned geology and ungentlemanly sneers at the more recent theories of colleagues convinced Darwin, for a time, to ignore geology. Edinburgh University was undoubtedly an important formative influence on Darwin. It was markedly secular compared to the English universities and he learned important lessons about contemporary science which he retained throughout his life. Darwin later recalled in his *Autobiography*, p. 48: "My Brother staid only one year at the University, so that during the second year I was left to my own resources; and this was an advantage, for I became well acquainted with several young men fond of natural science."

One of the most influential of these young men was Dr Robert Edmond Grant (1793–1874), an expert on marine invertebrates. Darwin accompanied him on collecting trips in the Firth of Forth. "I also became friends with some of the Newhaven fishermen," Darwin recalled, "and sometimes accompanied them when they trawled for oysters, and thus got many specimens." Dissecting and observing his captures under a "wretched microscope" Darwin made several new observations. These he reported to the student Plinian Society although the papers were not published. Darwin also paid John Edmonstone (a former black slave from Guiana), to teach him to stuff birds' skins. This was essential to preserving specimens and would prove of great service during the *Beagle* voyage.

While at Edinburgh Darwin discerned that his father would leave him enough property to live in comfort, thus dispelling any real sense of urgency in learning medicine, which Darwin disliked. Most of all he was unable to stand the sight of blood or suffering, traits that he retained throughout his life. Therefore his father proposed instead that Darwin become a clergyman:

He was very properly vehement against my turning an idle sporting man, which then seemed my probable destination. I asked for some time to consider, as from what little I had heard and thought on the subject I had scruples about declaring my belief in all the dogmas of the Church of England; though otherwise I liked the thought of being a country clergyman. Accordingly I read with care *Pearson on the Creed* and a few other books on divinity; and 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 fully accepted.

As it was decided that I should be a clergyman, it was necessary that I should go to one of the English universities and take a degree; but as I had never opened a classical book since leaving

school, I found to my dismay that in the two intervening years I had actually forgotten, incredible as it may appear, almost everything which I had learnt even to some few of the Greek letters. I did not therefore proceed to Cambridge at the usual time in October, but worked with a private tutor in Shrewsbury and went to Cambridge after the Christmas vacation, early in 1828. I soon recovered my school standard of knowledge, and could translate easy Greek books, such as Homer and the Greek Testament with moderate facility. (*Autobiography*, p. 58)

It was essential to be proficient in Greek and Latin before entering Cambridge because the daily college lectures and private tutorials began at an advanced level. For Darwin becoming a clergyman would mean he could pursue his natural history interests like the famous parson naturalist Gilbert White (1720–1793), author of the remarkably popular *Natural History of Selborne*.

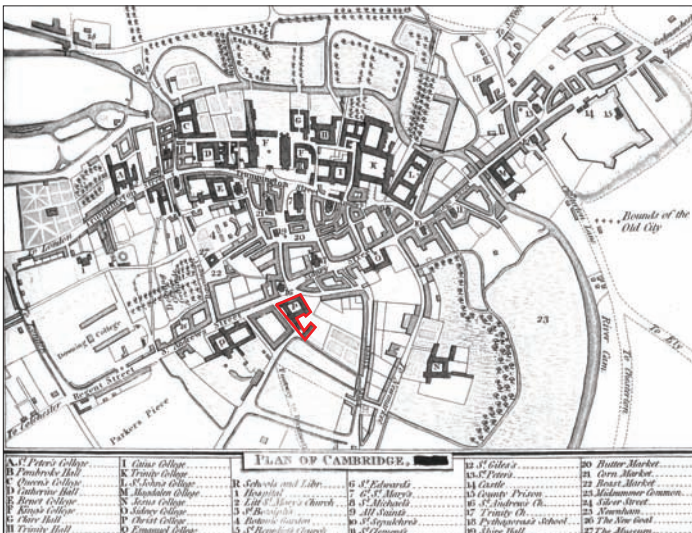
Coming up to Cambridge



View of Cambridge. Drawn by Richard Harraden, etched by Letitia Byrne 1809.

Cambridge in 1828 was a quiet market town on the broad flat plains of East Anglia, surrounded by fenland and reclaimed marshes. The town, with a population of 21,000, was about one and a half miles long from north to south and one mile wide. The university population, all male, was about 2000. It was said that Oxford was a university in a town and that Cambridge was a town in a university. In the centre of the town was the market place. The food and goods available here were of the highest quality in the kingdom – made possible by the demand of the seventeen colleges and their inhabitants. The university, which sent two members to Parliament, regulated the markets and issued licenses to trade with the university.

The colleges were like independent fiefdoms, each with its own head, usually called the Master, and a number of Fellows. There were about 400 college Fellows in Cambridge. Some of these served various roles in their college such as tutor, lecturer, steward, bursar or dean. Most of them were ordained clergymen. If a Fellow took a college living or married he lost his Fellowship.



Map of Cambridge from *The Cambridge guide*, [1830]. Christ's College is here in red.

Then there were the students. These were ranked in three or four types. The first were Noblemen, the eldest sons of Dukes, Marquesses, Earls, Viscounts or Barons, of which there were so few that they were often not counted as a separate type of student. The next type, Fellow Commoners, were usually the younger sons of noblemen or otherwise very wealthy students who ate with the Fellows and sat with them in chapel. The most numerous type of student was Pensioners or boarders able to pay all their own fees and expenses. The last group were Sizar; these depended on scholarships or other financial support and were often required to perform menial tasks in the college.

Undergraduates and recent Bachelors of Arts (B.A.s) were required to wear a cap and gown in the streets and precincts of the university, though there were times of day and activities (such as riding) when this was excepted. There were different gowns for the different types of students, and sometimes for different colleges.

Amongst the University officers were four proctors, appointed yearly from amongst the Fellows. The office of proctor, like other University offices, did not have a special gown. Proctors wore their usual college Fellows' gowns. Amongst their various duties they most notoriously tracked down students carousing with young women. The proctors had the authority to enter any house in Cambridge where they suspected such types might be concealed; they also had the power to imprison any such young women in the 'spinning house', the University's own prison.

The academic year, then as now, was divided into three terms. Michaelmas: October – December; Lent: January – March; and Easter: April – July. An ordinary Bachelor of Arts (B.A.) degree required three and a third years (or ten terms) residence in Cambridge and the successful completion of two examinations, except for noblemen who simply 'proceeded' to their degree after the required residence. Students were required to spend each night in their college rooms or in lodgings if living outside college, as a means of accurately recording their required residence. An 'exeat' from the college Tutor could be acquired to allow for temporary leave.

Attendance at college lectures and readings was usually compulsory and could be enforced by fines and other punishments. Study in Cambridge was, however, encouraged through the incentives of awards or prizes rather than the fear of punishment. Christ's College, for example, offered annual cash and book prizes for the best composition in Latin verse and prose. Another set of prizes was offered "for the best Latin dissertation on some evidence for Christianity...English Composition on some Moral Precept of the Gospel" ... and "the most distinct and graveful reader in, and regular attendant at, Chapel." (*Cambridge University Calendar* 1829, pp. 286–7). University lectures were, in contrast, optional. The curriculum was divided into three general areas of study: natural philosophy, moral philosophy and classics. A contributor to the *Monthly Magazine* called it a "very liberal system of education ... exquisitely adapted to rouse genius into energy and sluggishness into action" (*Monthly*

Magazine 1803, p. 27.) All this was to prepare young men for the church, for the Bar or for politics.

Why did Darwin come to Christ's College?

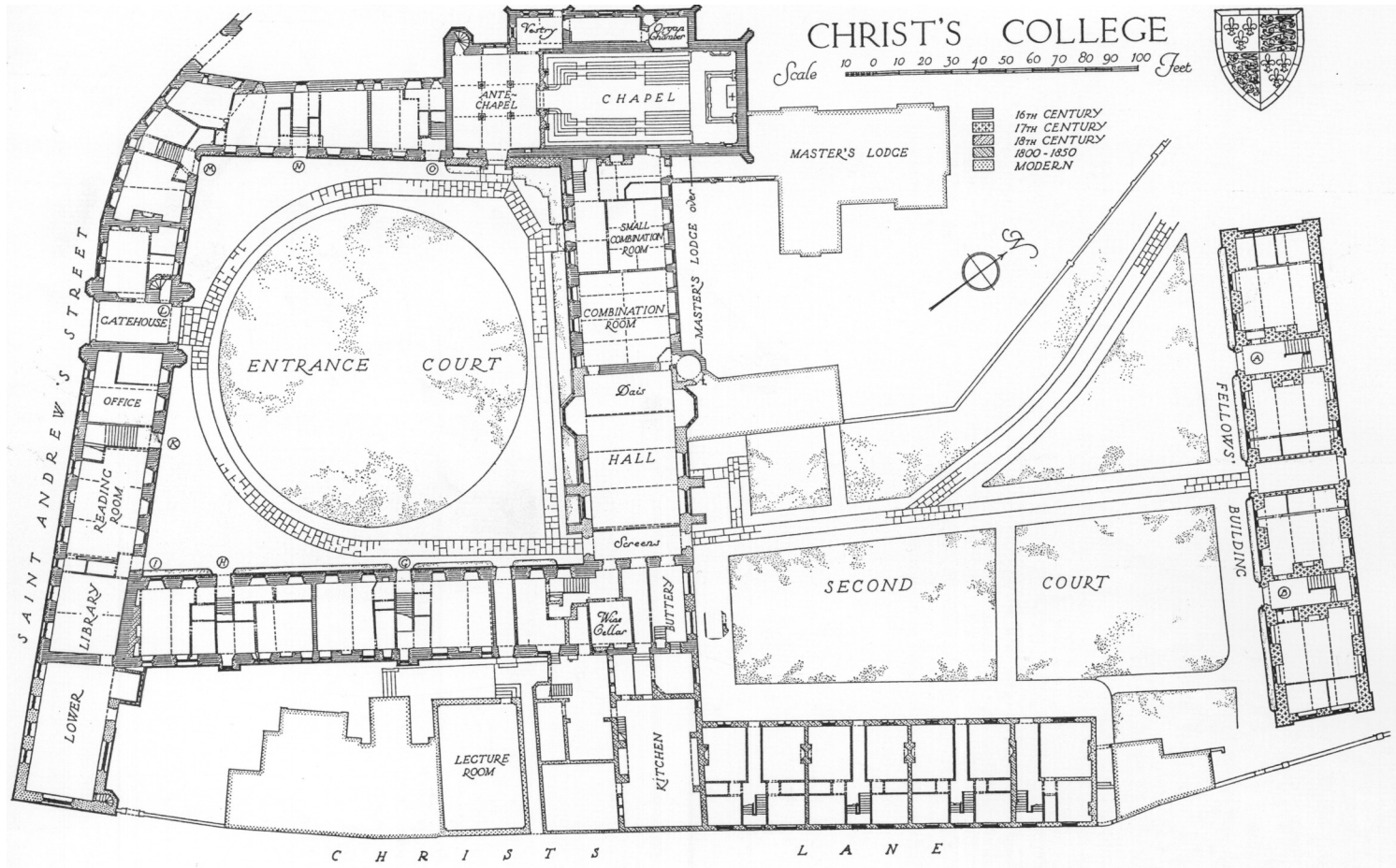
It has long been debated why Darwin came to Christ's College. His grandfather, the poet Erasmus Darwin, went to St. John's College. Shrewsbury School had connections to St. John's. In 1821, Darwin's cousin, Hensleigh Wedgwood (1803–1891), later a philologist and barrister, also went to St. John's. At the time it had a reputation for strict discipline. Wedgwood migrated to Christ's after only a single term. He took his B.A. in 1824 and was elected a Finch and Baines Fellow (one of the few Fellowships that did not require taking Holy Orders) of Christ's in February 1829, a position he held until October 1830. Hence it is not surprising that his cousin, Darwin's brother Erasmus, joined Christ's College on 9 February 1822. He received his M.B. in 1828. Darwin's second cousin, William Darwin Fox (1813–1881), later a clergyman naturalist, came up in 1824. It was therefore perfectly natural that Darwin would follow his cousins and brother to Christ's. And equally that he join a college amenable to wealthy young men devoted to hunting and shooting.

Christ's College was re-founded in 1505 by Lady Margaret Beaufort (1443–1509), the mother of Henry VII. It is one of the smaller colleges in Cambridge and faces St. Andrew's Street, directly across from the Church of St Andrew the Great. In Darwin's day it was a quiet and relaxed institution, neither academically rigorous nor religiously strict. Darwin's son, Francis, later recorded:

The impression of a contemporary of my father's is that Christ's in their day was a pleasant, fairly quiet college, with some tendency towards "horsiness"; many of the men made a custom of going to Newmarket during the races, though betting was not a regular practice. In this they were by no means discouraged by the Senior Tutor, Mr. Shaw, who was himself generally to be seen on the Heath on these occasions. There was a somewhat high proportion of Fellow-Commoners,—eight or nine, to sixty or seventy Pensioners, and this would indicate that it was not an unpleasant college for men with money to spend and with no great love of strict discipline." (F. Darwin 1887, vol. 1: 65)

Former Master of Christ's, Sir Arthur Shipley, recalled in 1924: "It is in the recollection of those now living that one of the College "gyps" [servants] used to recount how when young he had seen a number of students in scarlet coats ride round the first court." (Shipley 1924, p. 126)

Christ's had fifteen Fellows, most of whom were required to take Holy Orders within twelve months of attaining the proper age. Amongst the students and resident M.A.s and B.A.s there were (numbers fluctuated each year) about four Noblemen, sixteen Fellow Commoners, sixty-five Pensioners and eight Sizars. The names of the Master, Fellows and students were listed each year in the *University Calendar*. On average Christ's admitted thirty new undergraduates each year, compared to about 400 admitted throughout the university.



Plan of the first and second courts of Christ's College from *An inventory of the historical monuments in the city of Cambridge* (1959).

In principle the College was still governed by the Elizabethan statutes (these were not changed until 1860) but in reality Cambridge colleges had long since gradually changed their day-to-day practices to suit changing times. Christ's subsisted on the rents of about eighty properties from the endowment of the Foundress and, in turn, bestowed the clerical livings of seventeen parishes. The original buildings in First Court, consisted of the Great Gate, the Chapel, the Master's Lodge, the Hall, the kitchen, the Library and accommodation. Newer buildings in Second Court provided additional accommodation. Farther back there were the College gardens which contained shady walks, decorated with busts and alcoves, a bowling-green, a summer house and a bathing pool. The guidebooks recommended the ancient mulberry tree which was said to have been planted by the great poet and alumnus of the College, John Milton (1608–1674). It can still be seen today.

College administration of its students

The College Tutor recorded the entry of students, received their tradesmen's bills, kept their accounts and generally looked after them. The Tutor was paid through his banker. Darwin was admitted as a member of the College, presumably by post, under Tutor Joseph Shaw (1786–1859). Shaw, politically one of the liberal-minded reformers in the College, had been admitted as a Sizar at Christ's in 1803, gaining his B.A. in 1807, M.A. 1810 and he was a Fellow of the College between 1807 and 1849. A College historian wrote of Shaw:

...Shaw, who was obviously an arch-snob, [who] undoubtedly helped things along by laying himself out to make Christ's particularly attractive to ex-officers of the richer classes, fellow-commoners and noblemen, together with well-to-do young men of any sort and in general those of sporting rather than of intellectual tastes...In the whole time [1814–1828] only 49 of those entered under him took Honours, of whom 12 belong to the three years when he had ceased to be Tutor. Only three sat for the Classical Tripos...(Steel 1949, pp. 40–1, see also Peile 1913.)

Darwin's name was entered in the Admissions Books at Christ's College on 15 October 1827. There are three surviving Admissions Books which record Darwin. The specific purpose of each book, apart from the main Admissions Book, has not been ascertained. One might have been kept by the Bursar, for example, and another by the Tutor.

'Paid £15.19.6' was added later, presumably when Darwin arrived in Cambridge. The Caution money (£15 for Pensioners) was a deposit to the Tutor against good behaviour and unpaid bills and so forth, returned at graduation. The fees consisted of 10 shillings for the College, 1 shilling to the Lecturer and eight shillings and sixpence for sizar and College servants.

This Admissions Book, described in the catalogue of archives as 'Admissions/Terms Books', records Darwin's residence in Cambridge and the date of his B.A. degree and the date of his death in 1882.

There are also six College record books, recently re-discovered by the Honorary Keeper of the Archives and Fellow Commoner, Geoffrey

Catalogus Studiosorum qui admissi sunt in
 Collegium Christi a Festo Divi Michaelis 1827 ad Festum
 eiusdem 1828. — 25 Joannes Cresswell Prorector.

Octobris 15^o. Joannes Durand Baker
 admissus est Pensionarius Minor sub M^{ro} Shaw.

Octobris 15^o. Jacobus Haworth,
 in Comitate Lancastriensi natus,
 admissus est Pensionarius Minor sub M^{ro} Shaw.

Octobris 15^o. Carolus Darwin,
 admissus est Pensionarius Minor sub M^{ro} Shaw.

'Admissions to Christ College' T.1.2
 Catalogus Studiosorum qui admissi sunt in Collegium Christi a Festo Divi Michaelis
 1827 ad Festum eiusdem 1828. – October 15. Carolus Darwin, admissus est
 Pensionarius Minor sub M^{ro} Shaw.
 (Translation: List of students who are admitted to Christ College from the Feast of
 Saint Michael [29 September] 1827 to the same Feast in 1828. – October 15. Charles
 Darwin admitted as Minor Pensioner under Master Shaw.)

'Admissions 1815-1852' T.3.1

October 15. 1827

Charles Darwin adm^d?

a Pens^r?

Caution & Fees not Paid

Paid £15. 19. 6

'Admissions 1818-1828' T.1.4
 October 15. 1827
 Charles Darwin adm^d. a Pens^r.
 Caution & Fees not Paid
 Paid £15.19.6

Admission Fees.

Nobleman -	
Caution - - - - -	£ 5. 2.
Plate D ^o - - - - -	50. 0. 0
College - - - - -	20. 0. 0
Lecturer - - - - -	2. 0. 0
Sup. ^r Money - - - - -	. 5. -
(3) Sizar & Serv ^t Fees -	5. 0. 0
Garden - - - - -	1. 5. -
	3. 3. -
	£ 81. 13. 0

Fellow Com ^r -	
Caution - - - - -	£ 5. 2.
Plate D ^o - - - - -	25. 0. 0
Garden - - - - -	12. 0. 0
College - - - - -	3. 3. -
Lecturer - - - - -	1. 0. 0
Sup. Money - - - - -	2. 6
(2/6) Sizar & Serv ^t Fees -	2. 10
	0. 12. 6
	44. 8. 0

Pensioner	
Caution - - - - -	£ 5. 2.
College - - - - -	15. 0. 0
Lecturer - - - - -	10. -
(3/6) Sizar & Coll: Serv ^t -	1. -
	8. 6
	15. 19. 6

Sizar	
Caution - - - - -	£ 5. 2.
College - - - - -	10. 0. 0
Lecturer - - - - -	5. -
(2/6) Sizar & Coll: Serv ^t -	. 6
	5. 6
	10. 11. 0

A page from the front of Admissions 1818-1828 (T.1.4) listing the Admission fees for the four ranks of students.

Names	In & out of College	1	2	3	4	5	6	7	8	9	10	11	12	13	Buttery	In & out of Commens	No of Dishes & price of etc
Widley	in Dec 1827																
Bright	in Dec 1827								4	7.6	7.0	6.1	11.0	8.1	2.4	11.8	2.17.9
Stacy	in Dec 1827	3.24							3.9	7.6	6.6	6.4	7.7	6.10	6.9	2.10.0	3.14.6
Hudson	in 7 Feb									6	6.4	6.6	6.8	6.5	6.1	6.0	2.15.12
Fisher	in 14 Dec 1827	4.14								6	6.7	6.6	6.2	6.4	6.7	6.9	2.15.12
W. V. V. V.	in 17 Feb	2.6									5	7.7	6.10	7.2	6.11	6.10	2.20.7
W. V. V. V.	in 18 Jan																
W. V. V. V.	in 19 Dec	5.74															3.15.4
Jackson	in 17 Jan	5.74															4.15.12
Rickards	in 16 Dec 1827	6.9	6.9	6.9													5.7.3
Dawson	in 13 March																
Graham	in 26 Jan 1828																
Baker	in 26 Jan 1828																
Haworth	in 26 Jan																
Darwin	in 14 Dec 1827																
Cherry	in 23 Feb	11.9	9.10	9.6	11.9	11.5	11.6										4.11.12

This page from '1827-1831 Students Bills' (T.11.25) is the only known document that records the date of Darwin's arrival in Cambridge. It also records his weekly commons or buttery account and extra vegetables in the final column.

Thorndike Martin, which record previously unknown details of Darwin's time at Christ's:

1822–1829 Tutors' Accounts, (T.11.26) includes bills for apothecary, barber, bedmaker, shoeblack, porter, library books, brazier, coal, cook, chimney sweep, scullery, grocer, glazier, hatter, smith, steward, laundress, tailor, private tuition, linen draper, woollen draper and painter.

1830–1835 Students Bills, (T.11.27) continues the records of T.11.26, although with printed columns, and also includes seamstress, bricklayer, carpenter and study or room rent.

1827–1831 Students Bills, (T.11.25) records Darwin's weekly commons or buttery account in College.

1828–1831 Study Rent, (T.9.5) records the quarterly room rent, usually 4 pounds.

1828–1829 Residents Book, (T.17.A) records weekly residence in College and terms kept.

1831–1836 Lecturer's Book, (T.8.2) records degree fees, £14 for the B.A. and £12 for the M.A. in 1836.

'1822–9 Tutors' Accounts' (T.11.26) and '1830–1835 Students Bills' (T.11.27) record the payment of Darwin's Tutor's bills during his time at Christ's:

£	s	d	
55	16	9	J. S. ¹ Apr. 22 1828
106	5	0	J. S. July 1. 1828
15	18	6	J. S. Nov. 21. 1828
39	15	3	J. G. March 5. 1829
26	15	3	J. G. May 29. 1829
58	5	7	J. G. July 1829
70	18	7	J. G. March 8. 1830
49	10	-	June 4. 1830
122	5	9	May 1831
33	12	6 ¹ / ₂	[June 1831] ²

¹ J.S. = Joseph Shaw and J.G. = John Graham.

² See Darwin to Caroline Darwin [31?] October [1831] in Correspondence, vol.1: 177.

Darwin's father probably paid the bills by cheque, and also supplied Darwin with an allowance of 300 pounds per year according to Janet Browne. (Browne 1995, p. 90).

Darwin's Terms and his B.A. Degree

It is often said that Darwin studied theology or divinity at Christ's. This is not correct. Darwin was a candidate for an ordinary Bachelor of Arts degree, or B.A. after which he could have taken divinity training prior to taking Holy Orders. Darwin never undertook divinity training. To earn a B.A. at Cambridge it was necessary to pass two university examinations, the 'Previous Examination' in the second year, the B.A. Examination in January of the final year, and to reside ten terms in

Cambridge. Darwin's terms, taken from the *Cambridge University Calendar*, are given below beside the dates Darwin was in residence from the College record books:

1827, Michaelmas Term: 10 October – 16 December

1828, Lent Term: 13 January – 29 March ["in 26 Jan" T.11.25]
Easter Term: 16 April – 4 July 1828 ["in 14 March-out 15
March-in 17 March" T.11.25]
Michaelmas Term: 10 October – 16 December ["in 31 Oct",
in commons: "1 Nov" T.11.25]

1829, Lent Term: 13 January – 10 April [in "Feb 24", in commons:
25 Feb T.11.25]
Easter Term: 29 April – 10 July ["out June 8" T.11.25]
Michaelmas Term: 10 October – 16 December [in "Oct 12"
T.11.25]

1830, Lent Term: 13 January – 2 April ["in Jan 1" T.11.25]
Easter Term: 21 April – 9 July ["out June 3" T.11.25]
Michaelmas Term: 10 October – 16 December ["in Oct 7"
T.11.25]

1831, Lent Term: 13 January – 25 March ["B.A. April 25th" [sic]
T.11.25]
Easter Term: 13 April – 8 July ["out June 16" T.11.25]

Darwin arrived in Cambridge, as the College's '1827-1831 Students Bills' reveals for the first time, on Saturday 26 January 1828. He was eighteen years old. As the academic year began the previous October, all College rooms were already full. He therefore took lodgings above the premises of W. Bacon, tobacconist, in Sidney Street, less than a minute's walk from the College Gate. All student lodging houses had to be licensed by the University and landlords were required to record the time when their lodgers returned in the evenings, thus maintaining the sort of records kept by the porters at college gates.

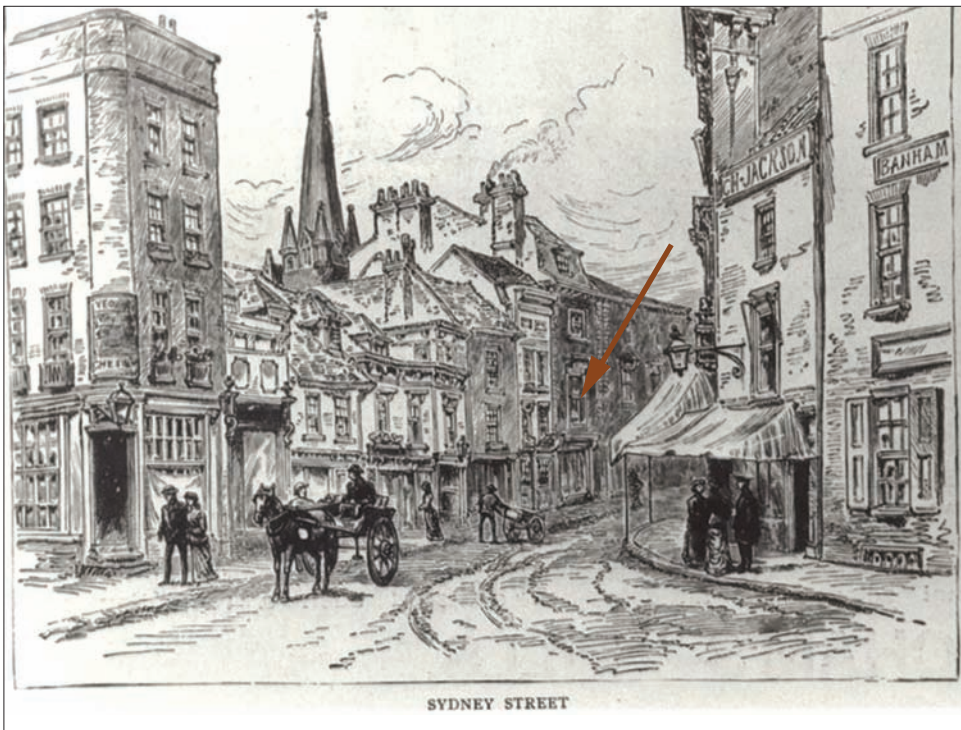
Modern histories have given no explanation for why Darwin lodged over Bacon's. The 1911 Easter Term issue of the *Christ's College Magazine*, however, reveals interesting details that seem to have been overlooked.

the exact whereabouts of [Darwin's lodgings] has been involved in considerable doubt. When, later in life, Darwin revisited Cambridge he one day pointed out to his son (now Sir George Darwin) the house in Sidney Street, in which, he said, he had once had rooms. He added that at that time Bacon the tobacconist occupied the shop below. Unfortunately Sir George Darwin was unable in after years to identify the house, and it is only recently that the efforts that have been made to ascertain its exact position have been crowned with success. It has now been proved that it was the house which stood on the site now covered by No. 63, Sidney Street, and occupied by Messrs Rutter and Son.

The person to whose wide local knowledge the admirers of Darwin are indebted for the settlement of this interesting point is Mr Thomas Hunnybun... Mr Hunnybun was born in the year 1830 in the house on the opposite side of the street to the present No. 63. ... Mr Hunnybun remembers that the house now occupied by Messrs Rutter and Son was once tenanted by Bacon the tobacconist, and that the latter used to let lodgings to University undergraduates, generally to Christ's men. Mr Hunnybun says that he well remembers his father going on several occasions to call on the Master of Christ's College to complain of the behaviour of undergraduates at Bacon's; and this fact impressed the recollection of the house upon his mind. The cause of complaint was, apparently, that the sporting young gentlemen over Bacon's were in the habit of leaning out of the windows and with tandem whips flicking the passers by. This seems to have been a favourite amusement at the time, for it is said that sixty years ago it was quite dangerous to walk down Rose Crescent on a Sunday morning, and one was unlikely to get through without having one's hat literally whipped off. (pp. 248–9)

The houses along Sidney Street, including Darwin's lodgings, were demolished in the 1930s. Two plaques on the site, occupied by a branch of Boots the Chemists, now recall its approximate location. *Spalding's Cambridge Street Directory* for 1887 lists the properties as follows, working south from Market Street: Holy Trinity Church, Cambridge Savings Bank [No number given], 63 Rutter, Arthur, Philo Chambers.

Darwin's lodgings (indicated by arrow) on Sidney Street from *The Graphic* 8 October 1887, p. 404.





A photograph of Sidney Street from the Royal Agricultural Society's Royal Show programme for 1922. Both images of Sidney Street are courtesy of Christopher Jakes, Principal Librarian, Local Studies, Cambridgeshire Libraries.

Formal admission to the University followed Matriculation. The word derives from the requirement that undergraduates enter their names on the 'matricula' or role. Apparently the correct date of Darwin's matriculation has not been previously published. The first University matriculation ceremony after Darwin's arrival in Cambridge was Ash Wednesday, 20 February 1828. On that day five men from Christ's matriculated. Around one o'clock Freshman, grouped by college, gathered in the Senate House and signed their names in the Registrary's book under the heading declaring they were bona fide members of the Church of England as by law established. Darwin signed as "Charles Robert Darwin". (Matric. 11.) They took the Latin oaths of allegiance and supremacy before the Senior Proctor, that year Professor of geology Adam Sedgwick (1785–1873). Thus began Darwin's lifelong association with the University of Cambridge.



The interior of Senate House. Drawn by R. Harraden and engraved by J. Skelton, 1810.

Censi vicesimo die Februarii 1828.

Venerabili Viro Martino Davy S.T.P. Procan^o:

Coram { Adamo Sedgwick M.A. } Procur.^{bus}
 { Thomâ Smith Turnbull M.A. }

me presente Gul^o Hustler Reg^o.

Coll. Regal.

Thomas Sanders

Coll. Chr. Robert Mullins Mant.

John Surand Baker

George Henry Moore

Nathaniel Thomas Lumby Hodgson

Charles Robert Darwin

Aul. Cath. Henry Dawson

Richard Dawkins

Coll. C.C.

James Richard White Fox

James Hunt

Darwin's first year at Christ's

Settled in his lodgings overlooking the then narrow Sidney Street, Darwin began to make friends and renew old acquaintances. His brother Erasmus returned on 8 February (T.11.25). Perhaps lodging over the tobacconist's shop lead to some teasing. One friend, Albert Way (1805–1874) of Trinity College, drew a mock coat of arms for Darwin in April 1828. This comic coat of arms depicts crossed tobacco pipes, meerschaum pipes, cigars, a wine barrel and beer tankards, evidently Darwin's trademarks!

David Butterfield, classicist and Fellow of Christ's College, has provided the following explanation:

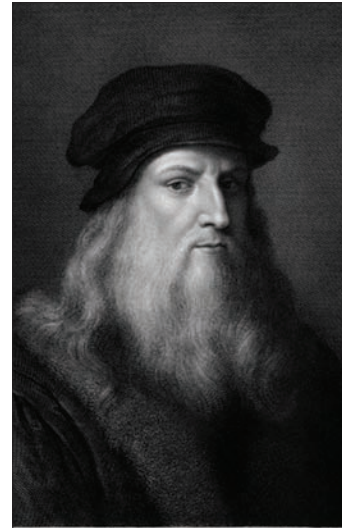
'fumosior' implies that both Darwin and Way are lovers of tobacco, but that Way is the smokier of the two. 'Yalo Baccoque repleti', means '[we are] filled with Yalus and Baccus'. Bacc(h)us is the god of wine and is the figure standing on the right; his name is often used metonymically for wine. 'Yalus', therefore, is presumably represented by the figure on the left. The figure looks like an American Indian. In Lakota (the language spoken by the Sioux) yalu-icu means to suck smoke through a pipe.

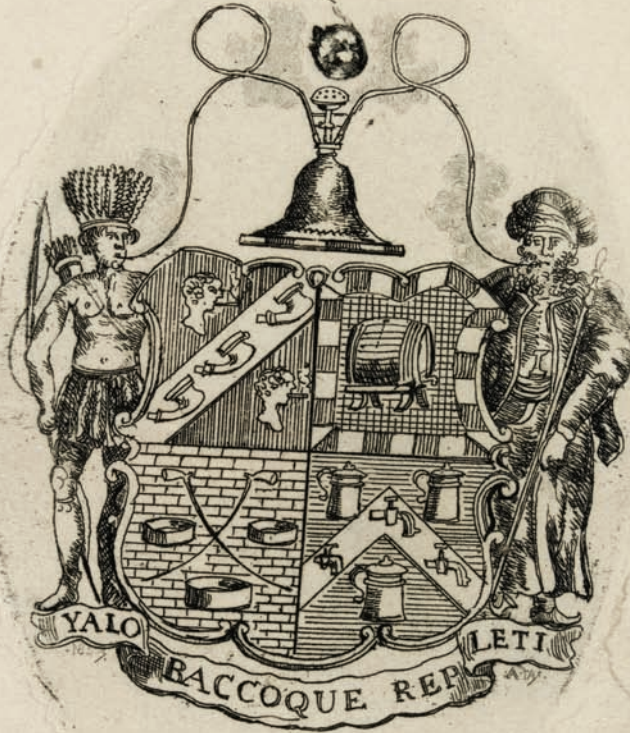
Darwin also cultivated more sedate interests and opportunities available at Cambridge. Another friend, John Maurice Herbert (1808–1882), took Darwin to King's College Chapel. "[Darwin] had great enjoyment in, & a keen relish for fine concerted music – both instrumental & choral, & we frequently went to King's College Chapel to hear the anthem in the Afternoon service...He was very fond of riding, & he sometimes hunted, but he never boated, or played cricket." (Herbert 1882)

Darwin recalled how a former Shrewsbury school friend, Charles Thomas Whitley (1808–1895), then at St John's, "inoculated me with a taste for pictures and good engravings, of which I bought some. I frequently went to the Fitzwilliam Gallery [then in Free School Lane, now the Whipple Museum], and my taste must have been fairly good, for I certainly admired the best pictures, which I discussed with the old curator." (*Autobiography*, p. 61) According to Herbert: "[Darwin] had a great liking for first-class line engravings – especially for those of Raphael Morghen & Müller; & he spent hours in the Fitzwilliam Museum in looking over the prints in that collection." (Herbert 1882) An engraving of Leonardo da Vinci by Raphael Morghen (1758–1833) hangs today in Darwin's Old Study at Down House. On the back is an inscription "Gift of Leonard Darwin, 1929" and "This belonged to Father".

Most of Darwin's friends were from other colleges, as he recalled in later life "I do not think I knew even to bow to 15 men in college & was intimate with only 2 or 3 men.— Most of my friends belonged to Trinity & St. Johns & Emanuel [sic]." (*Correspondence*, vol. 7: 38)

Perhaps Darwin's closest friend at Cambridge was his second cousin, William Darwin Fox, who was also studying at Christ's (admitted 26 January 1824) for an ordinary Arts degree with the aim of becoming a clergyman- like Darwin. Fox, again like Darwin, enjoyed riding,





Car. Darwin.
amico opt. amicus fumosior.
Albertus Way. e C. S. Trin.
D. D. D.
5. Ap. 1828.

Albert Way's comic coat of arms for Darwin. From Cambridge University Library DAR 204:30. Courtesy of the Syndics of Cambridge University Library.
 Car[olo] Darwin
 amico opt[imo] amicus fumosior
 Albertus Way e C[ollegio] S[anctae] Trin[itatis]
 D[at] D[icat] D[edicat]
 5 Ap[ril] 1828
 Translation: "Albert Way of Trinity College, a more smoke-filled friend, gives, devotes and dedicates [this] to his best friend Charles Darwin."



Engraving of Raphael Sanzio's *Madonna della Sedia* by Auguste Gaspard Louis Boucher Desnoyers. A copy of this engraving was owned by E. A. Darwin and is now in the possession of The Charles Darwin Trust. Reproduced courtesy of the Fitzwilliam Museum, Cambridge, acc. no. 33.A.1-107.



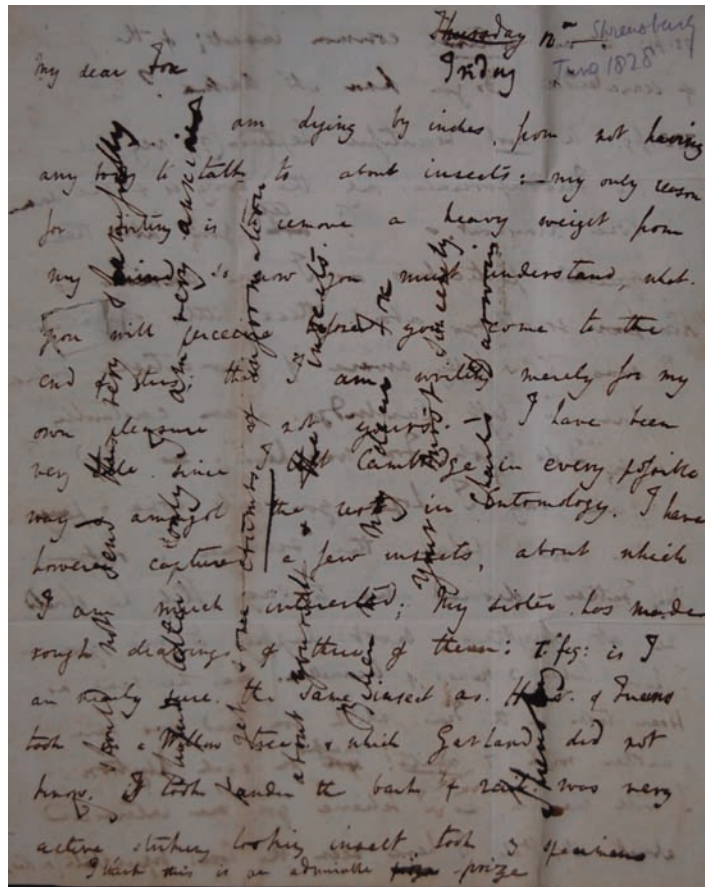
Engraving by Marcantonio Raimondi of Raphael Sanzio's *Apollo on Parnassus*, a mural in the Stanza della Signatura, in the Vatican. Possibly one of the engravings Darwin displayed in his rooms at Christ's. (See H. E. Litchfield's recollection in DAR 262.23: 9-10) Reproduced courtesy of the Fitzwilliam Museum, Cambridge, acc. no. P.5323-R.

shooting and natural history. Fox was particularly fond of birds and insects. He kept a series of diaries (now in the Cambridge University Library) which record in remarkable detail the life of a Christ's undergraduate of the time. Darwin's letters to Fox are now preserved in the College's Old Library. They provide a unique source for Darwin's interests and activities as an undergraduate. After morning service in the College chapel Darwin often joined Fox for breakfast in his rooms just through the archway leading to Second Court in what is today E staircase. In after years Darwin fondly remembered "our antient snug breakfasts at Cambridge". (*Correspondence*, vol. 1: 223) "What pleasant hours, those were when I used to come & drink coffee with you daily!" (*Correspondence*, vol. 7: 196)

Fox inspired Darwin to embrace the scientific hobby of collecting insects, especially beetles. Darwin was soon scouring the surrounding fields and fens for rare species.

no pursuit at Cambridge was followed with nearly so much eagerness or gave me so much pleasure as collecting beetles. It was the mere passion for collecting, for I did not dissect them and rarely compared their external characters with published descriptions, but got them named anyhow. I will give a proof of my zeal: one day, on

Darwin to W. D. Fox 12 [June 1828]. Christ's College Library, Fox 1. See *Correspondence*, vol. 1: 56.

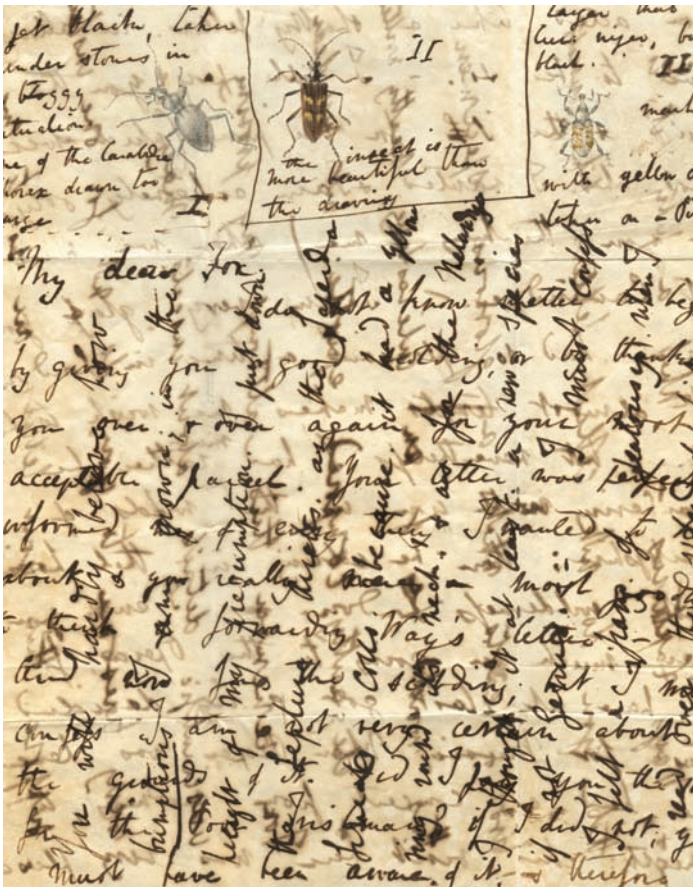


tearing off some old bark, I saw two rare beetles and seized one in each hand; then I saw a third and new kind, which I could not bear to lose, so that I popped the one which I held in my right hand into my mouth. Alas it ejected some intensely acrid fluid, which burnt my tongue so that I was forced to spit the beetle out, which was lost, as well as the third one.

I was very successful in collecting and invented two new methods; I employed a labourer to scrape during the winter, moss off old trees and place [it] in a large bag, and likewise to collect the rubbish at the bottom of the barges in which reeds are brought from the fens, and thus I got some very rare species. (*Autobiography*, pp. 62–3)

Darwin's Cambridge friend Frederick Watkins (1808–1888), at Emmanuel College, later recalled:

Many is the walk I have had with him in the meadows between Cambridge & Grantchester & many is the wretched animal that he unearthed from a rotten willow tree or some other obscure hiding place.



Drawings of beetles, probably by one of Darwin's sisters, in a letter by Darwin to W. D. Fox [30 June 1828]. Christ's College Library, Fox 2. See *Correspondence*, vol. 1: 58.

I recollect that he introduced me to a beast wh. I have ever since held in holy hatred "Stapholinus olen" [Devils Coach Horse Beetle] wh. was for some time my idea of a scorpion & there was another the remembrance of whose name is "Crux major" or something like it.

After fifty years Watkins could still remember Darwin's enthusiasm for *Panagaeus cruxmajor*, or the crucifix ground beetle, one of Darwin's favourites. It occurs in Wicken and other fens under sedge litter. He later recalled in his *Autobiography*, p. 63, "I am surprised what an indelible impression many of the beetles which I caught at Cambridge have left on my mind. I can remember the exact appearance of certain posts, old trees and banks where I made a good capture. The pretty Panagaus crux-major was a treasure in those days". Darwin's notes in his copy of Stephens 1829, p. 13, record his capture of one: "Cam: Spring 1828". In June 1828 Darwin reported excitedly to Fox "I Have taken Clivina Collaris, fig 3 Plate III of Stephens". Herbert recounted how one of the beetles was examined: "One day in his rooms he doped a large Beetle with a penful of prussic acid. The creature almost instantaneously kicked & fell over on his back apparently dead — but after a few minutes exposure to the lense it rallied and wattled off as if nothing had happened to it, to our general amazement." (Herbert 1882)

Darwin returned home to Shrewsbury for the summer. He visited friends and relatives for shooting and beetling. On 1 July 1828 Darwin set out for Barmouth, Wales for what he called his "Entomo-Mathematical expedition" a study holiday with a few other Cambridge undergraduates and their private tutors. Darwin's mathematical tutor was George Ash Butterson (1805–1891) of St. John's. Darwin wrote of this time in his *Autobiography*:

I attempted mathematics, and even went during the summer of 1828 with a private tutor (a very dull man) to Barmouth, but I got on very slowly. The work was repugnant to me, chiefly from my not being able to see any meaning in the early steps in algebra. This impatience was very foolish, and in after years I have deeply regretted that I did not proceed far enough at least to understand something of the great leading principles of mathematics; for men thus endowed seem to have an extra sense. But I do not believe that I should ever have succeeded beyond a very low grade. (*Autobiography*, p. 58)

Darwin spent most of his time in Barmouth with two particular friends, Herbert and Thomas Butler (1806–1886), the son of the headmaster of Shrewsbury School. What the tutor did while Darwin scrambled over mountains and popped beetles into bottles is not recorded. Herbert later described Darwin's activities:

taking our daily walk together among the hills behind Barmouth... Darwin entomologised most industriously, picking up creatures as he walked along, & bagging everything which seemed worthy of being pursued, or of further examination. And very soon he armed me with a bottle of alcohol, in which I had to drop any beetle which struck me as not of a common kind. I performed this duty with some diligence in my constitutional walks; but alas! my powers of discrimination seldom enabled me to secure a prize — the usual



Clivina collaris from Stephens, *Mandibulata* 1: 40, plate iii, fig. 3.

Christ's College New Buildings.



CAMBRIDGE University ALMANACK 1832.

The Second Court of Christ's. Fox's rooms were on the first floor reached via the central doorway in the building on the left.

result on his examining the contents of my bottle, being an exclamation —“Well, old Cherbury” (the nickname he gave me, and by which he usually addressed me), “none of these will do.” ... There is a remarkable rocky hill rising abruptly from the valley of the Dysynnie, called Craig Ackryer, or Bird’s rock, which has swarms of Scabrids constantly frequenting its drags — Darwin went frequently there with his jars to secure any rare scabrid he cd. meet with; & he told me that he used to sit in a natural “chair” on the edge of the cliff, where he shot any bird on wing below him, which he wished to secure, and the guide who was at the foot of the cliff had to pick it up & carry it home for preserving. (Herbert 1882.06.02.)

Butler later described the same holiday in Barmouth:

[Darwin’s] own speciality however at that time was in the capture of beetles & moths & I learnt something of the voracity of the former seeing that when several were placed in the same box sometimes only one wd be found on our return the rest having been devoured: ... I remember also our killing the two largest vipers ... we buried them in order to catch some beetles which we found a week or more afterwards upon the spot (Butler 1882)

On 27 August Darwin left Barmouth early for the start of the shooting season on 1 September. He returned to Cambridge for the Michaelmas Term on 31 October 1828. (T.11.25) Finally, there was a free room in College and the Tutor assigned Darwin to a comfortable set on the south side of First Court. There is a tradition that these rooms were once occupied by the famous natural theologian William Paley (1743–1805). No evidence at Christ’s College has been found to substantiate this story. However many such College traditions are surprisingly accurate. When writing to his son William in 1858, Darwin mentioned his College rooms: “You are over the rooms which my cousin W. D. Fox had & in which I have spent many a pleasant hour.— I was in old court, middle stair-case, on right-hand on going into court, up one flight, right-hand door & capital rooms they were.” William was at the time staying in E6, though he later lived in his father’s old rooms. (F. Darwin 1914) Darwin gave this lengthy description of the location because the College staircases were not then named with letters as they are today. Darwin’s rooms are now known as G4. The rent was normally £4 per quarter.

Darwin’s rooms consisted of a panelled main sitting room (c. 8 x 8m) with an adjoining dressing room and bedchamber. (See the appendix on the restoration of Darwin’s rooms below.) His three windows on the north overlooked First Court, with the Chapel directly across from him. His postulated clerical future was never out of view. The Master’s Lodge was to its right and closer still the Hall. Darwin’s south facing windows overlooked what was formerly called Bath Court and is today the site of the new undergraduate library.

It was possible to buy the furniture left by the previous tenant from the College upholsterer. Darwin may have done so. It was common to buy crockery, tea sets, decanters and wine glasses from the bedmaker. A large bill of £40 5s 6d for a woollen draper in the Easter term may have been for a carpet ordered for his new rooms. (T.11.26) In December Darwin wrote to his brother Erasmus



Engraving showing the view of First Court from Darwin's windows in the 1830s.

"After you left Cambridge I got into very nice rooms in College, far more comfortable than lodgings, as you will find when you come next to Cambridge. I imbibed your tastes about prints, and put it into practice, and have bought some very good prints, which I long for you to see." (*Correspondence*, vol. 1: 71)

A college servant, known in Cambridge as a gyp, was assigned to each staircase. The word gyp is from the Greek for vulture, though by Darwin's time the reason why gyms were thus named was lost in obscurity. Darwin's gyp is recorded simply as 'Impey'. Gyms delivered letters, brushed clothes, ran errands and made coffee. The College porters took letters to and from the post office. Another servant known as a shoeblack cleaned and polished shoes and boots. These services were listed separately in the College accounts for each student. For example, in the quarter ending Lady Day (25 March) 1830 Darwin was charged £4.12.6 for coal, 7 shillings for the shoeblack and £2 one shilling for the barber.

A typical day at Christ's College for Darwin probably began around 7am when he was awoken by Impey in time to dress for Chapel at 7.30. While attending Chapel the bedmaker would come in and make the bed. This too was charged on the account, in this case £1 one shilling for the same quarter. Darwin would return from Chapel and have breakfast in his room before a blazing coal fire with the kettle boiling on the grate. The table was laid by Impey and the College breakfast, according to the recollection of a near contemporary at Trinity, consisted of: "the fourth part of a half-quarter loaf, and twopenny-worth of butter". ([Atkinson] 1825, p. 507) Tea and coffee and any other extras were provided or paid for by the student. After breakfast Impey cleared the breakfast things.



Clearly a wide variety of activities took place in Darwin's rooms. He read for his College curriculum, wrote letters, compared his captured beetles with published descriptions in his copy of Stephens *Systematic catalogue of British insects* and carefully pinned the beetles to cork boards. He had friends to coffee, and in the evenings they sometimes dined there and would then drink wine and play cards.

Another Cambridge friend, Jonathan Henry Lovett Cameron (1807–1888) from Trinity College, recalled: "At Cambridge I used to read Shakspeare with him in his own room & he took great pleasure in these readings. He was also very fond of music, though not a performer & I generally got an order for him for Kings Coll. Chapel on Sunday evening." Darwin recalled in his *Autobiography*, p. 61: "I used generally to go by myself to King's College, and I sometimes hired the chorister boys to sing in my rooms." Herbert remembered accompanying Darwin to the afternoon service at Trinity "when we heard a very beautiful anthem – At the end of one of the parts, which was exceedingly impressive, he turned round to me & said with a deep sigh "How's your backbone?" (Herbert 1882)

Even before coming up to Cambridge Darwin was a passionate sportsman. In October 1828 Darwin's father and sisters contributed £20 towards the purchase of a new double barrelled shotgun. With it Darwin often went shooting in the surrounding fens. He also acquired a dog, named Dash, who shared his rooms with him. When Darwin could not go shooting he would practice in his rooms:

When at Cambridge I used to practise throwing up my gun to my shoulder before a looking-glass to see that I threw it up straight. Another and better plan was to get a friend to wave about a lighted candle, and then to fire at it with a cap on the nipple, and if the aim was accurate the little puff of air would blow out the candle. The explosion of the cap caused a sharp crack, and I was told that the Tutor of the College remarked, "What an extraordinary thing it is, Mr Darwin seems to spend hours in cracking a horse-whip in his room, for I often hear the crack when I pass under his windows. (*Autobiography*, p. 44)

About this time, Herbert recalled that he and Darwin had an "earnest conversation about going into Holy Orders; & I remember his asking me with reference to the question put by the Bishop in the Aduration service: "Do you trust that you are inwardly moved by the Holy Spirit &c" whether I could answer in the affirmative—: & on my saying "I could not," he said "neither can I, & therefore...I can not take orders." (Herbert 1882) However in a letter from May 1830 Darwin wrote to Fox "I have some thoughts of reading divinity with [Henslow] the summer after next." (*Correspondence*, vol. 1: 104)

Chapel

Members of the College were called to Chapel by the bell, which rang for five minutes as the start of services approached at 7.30am. Students were probably required to attend Chapel eight times per week, at least one service per day and twice on Sunday. The present



Some of Darwin's Cambridge beetles, now at the University Museum of Zoology.



Chapel of Christ's College in 1815. Aquatint with hand colouring from R. Ackermann's *History of Cambridge*. From the Shipley album in the Old Library.

Chaplain of Christ's, the Rev. Christopher Woods, provides the following remarks.

It appears that when the bell stopped ringing, late-comers were not permitted to enter. Fines were payable by those who missed chapel. The chapel calendar was, of course, based upon the Christian religious calendar, of those holy days and saints' days which were maintained by the Church of England after the Reformation. According to the College statutes there would have been divine service of Morning and Evening Prayer (Matins and Evensong) on normal ('ferial') days at 7.30am and 6.00pm. On Sundays, chapel would have been at 9.30am, immediately preceding the University Sermon at the University Church of St Mary the Great. Attendance at the University Sermon was a weekly exercise, when scholars and students would have been exposed to the most contemporary and often fervent Christian polemic. As such, Cambridge students would not have been ill-educated in public theology or Philosophy of Religion. On College commemorations or holy days and feast days (which appeared in the *Cambridge Calendar*, as they do to this day), divine worship would have been at 3.30pm. Surplices (long white garments still used today by clergy and choristers), were worn by all Scholars and Fellows on Sundays, Saturday evenings, morning and evenings of feast days and on the evening before the same feast days. Surplices would have been kept in Chapel for those in College.

Because of the puritan nature of Christ's College, by dint of history, ceremonial would have been minimal and ideas of reformed theology would have been current and commonplace. As a College of the University, bound by statute of the Established Church, the Celebration of the Holy Communion (Sacrament of the Lord's Supper) was obligatory for all at certain times of the year. To this day, we would know these days as 'scarlet days' (days when doctors of the University are obliged to wear festal gowns in public): Christmas Day, Easter Day, Whitsunday, possibly Trinity Sunday and also on the

Sundays after the division of term in the Michaelmas and Lent terms, the Second Sunday in Easter Term and the second Sunday in August.

Undergraduates probably rotated through Chapel readings. It is interesting to note, and it seems no biography has ever done so, that Charles Darwin may well have stood at the lectern in Christ's College Chapel and read from the Bible.

Far from being an establishment-defending and entrenched Anglican stronghold Christ's had a large percentage of reform-minded Fellows. "In 1837 a draft of a new body of statutes was made, and on 24 February 1838 an order was signed by the Master and ten Fellows (including Shaw, Baines, and J. Cartmell, the future Master) that a petition for the substitution of [the Elizabethan] Statutes should be presented to the Queen. ... [the draft statutes] seem to have permitted the marriage of Fellows, and some participation in College emoluments by persons not members of the Church of England. ... Divine service should be held on Sundays only in the College chapel..." (Peile 1900, p. 279) and so forth. However, the draft was unsuccessful. Francis Darwin recorded a recollection of his father from his student days in Cambridge showing how lax the religious atmosphere of the College was in his time:

The way in which the service was conducted in chapel shows that the Dean, at least, was not over zealous. I have heard my father tell how at evening chapel the Dean used to read alternate verses of the Psalms, without making even a pretence of waiting for the congregation to take their share. And when the Lesson was a lengthy one, he would rise and go on with the Canticles after the scholar had read fifteen or twenty verses." (F. Darwin 1887, vol. 1: 165)

Darwin's tutors, Shaw and Graham, are buried in the ante-chapel. Their Latin-inscribed tombstones in the floor can still be read today.

College lectures

After breakfast in their rooms students were expected to attend the two College lectures in the lecture room, probably from 9–11 am. According to a work published in 1830, *Classical examinations; or, a selection of University scholarship and other public examination papers, and of the question papers on the lecture subjects of the different Colleges in the University of Cambridge*:

The principal Classical Lectures are in most of the Colleges given to men in their first year of residence. The subjects are greatly varied; but they are more usually a Greek play, a selection from one of the Greek historians, orators, or philosophers, and from some Latin writer, either of prose or verse. ... [in some colleges] a portion of the Greek Testament, one of the Gospels, or the Acts of the Apostles, is a subject of examination for second-year men. And besides this, some classical book is read in the lecture-room, generally one of those which form a part of the previous Examination, or *Little Go*. The first and second terms of the second year, and not unfrequently also the second and third of the first year are employed by the tutors of the smaller Colleges in preparing their men for this public examination. [For the third year, undergraduates are] kept employed upon the six first books of the Iliad and Æneid, which form the classical part of the examination for ordinary degrees. (See also Atkinson 1825)

CHRIST COLL. 1828.

1. In what places of an Iambic Trimeter do the tragic poets admit Anapaests, Dactyls, and Spondees? What exception is there to the rule concerning Anapaests? And what limitations to the admissibility of a Spondee in the fifth place of the verse?

2. State the rules applicable to a regular system of Anapaestic Dimeters. What is meant by the term *συνάφεια*?

3. Translate v. 258—73.

ἀτὰρ τί δὴ σόφισμα τοῦθ' ἠγοούμενοι

,

ἄκουσον.

Explain the syntax of v. 260.

In his *Autobiography*, p. 58, Darwin recalled "With respect to Classics I did nothing except attend a few compulsory college lectures, and the attendance was almost nominal."

A classics examination paper (College Examination on Euripides, *Hecuba*) at Christ's College from 1828. (Anon 1830)

A number of College mathematics examination papers from Darwin's time have recently been discovered at Christ's. These will be on display in the Old Library in 2009.

Dr Robert Hunt, Lecturer in the Department of Applied Mathematics and Theoretical Physics and Fellow of Christ's, provides the following comments on the sample mathematics paper reproduced below:

Conic sections are the shapes that you get when a flat plane intersects with a cone: they were first studied extensively by the Greeks, who showed that you always get a circle, ellipse, parabola or hyperbola (except in a few very special and uninteresting cases). The Greeks took a particular interest in geometry, including geometry in three dimensions, for purely intellectual satisfaction.

In the seventeenth century conic sections acquired a new significance when, amongst his many other discoveries such as the calculus, Isaac Newton showed that heavenly bodies (planets, comets, etc.) always move through the heavens under the influence of the Sun's gravity in the shape of a conic section. He was therefore able to demonstrate using his Universal Law of Gravitation that the Earth moves around the Sun in an elliptical shape, while comets within the Solar System typically move either in the shape of a parabola or that of an ellipse. Edmund Halley's use of this theory to predict the return of the comet now named after him was a decisive vindication of Newton's work.

Newton's influence within Cambridge in particular and England in general meant that the serious study of conic sections (both in the

CONIC SECTIONS.

CHRIST'S COLLEGE, *May 1829.*

1. DEFINE the parabola and the ellipse.
2. A tangent at any point P in a parabola bisects the angle SPM .
3. The sub-tangent is double of the abscissa AN .
4. Find the value of the perpendicular from the focus on the tangent to any point in the parabola, and in the same curve shew that $Sy \propto \sqrt{SP}$.
5. In the parabola $4 SP \cdot PV = QV^2$.
6. In two parabolas about the same axis, having a common ordinate QPN , the area $ASP : \text{area } ASQ :: \sqrt{L} : \sqrt{L'}$, where L, L' are the latera recta of the two parabolas.
7. In an ellipse the centre bisects all diameters.
8. Perpendiculars from the foci upon the tangent at any point in the ellipse, meet the tangent in the circumference of a circle, whose diameter is the axis major.
9. The sub-normal $NG = \frac{L}{2AC} \cdot CN$, where $L = \text{latus rectum}$ of the ellipse.
10. $PV \cdot VG : QV^2 :: CP^2 : CD^2$.
11. Find the diameter and chord of curvature to an ellipse through the centre.
12. Shew that the ellipse is a conic section.

A mathematics examination paper used at Christ's College in May 1829, when Darwin was a student.

abstract and with applications to planetary motion) was still a major part of the Cambridge curriculum in Darwin's time. In Continental Europe, however, mathematicians had moved forward in innovative directions, creating whole new areas of mathematics (such as analysis, statistics and the calculus of variations) that were to prove key to future scientific discovery, while in England the syllabus was held back with a large amount of recycled, old fashioned material. It was not until the late twentieth century that English mathematics began to absorb many of the new, modern concepts from Europe.

After College lectures students might have tea or coffee in their rooms and were free to visit friends or go for walks. Around 1pm it was customary to visit private tutors.

Dinner was then at 4pm in Hall. For Pensioners like Darwin the meal or commons provided consisted only of joints of meat and beer. However extras could be purchased such as vegetables, pies and cheese. In fact the College record book T.11.25 had a separate column for vegetables next to the record for commons. In 1828 vegetables were charged at "5 1/2 p/day". In the first quarter of Darwin's residence in Cambridge his vegetable bill came to £1 2s 5 1/2d. (T.11.25)

The Hall

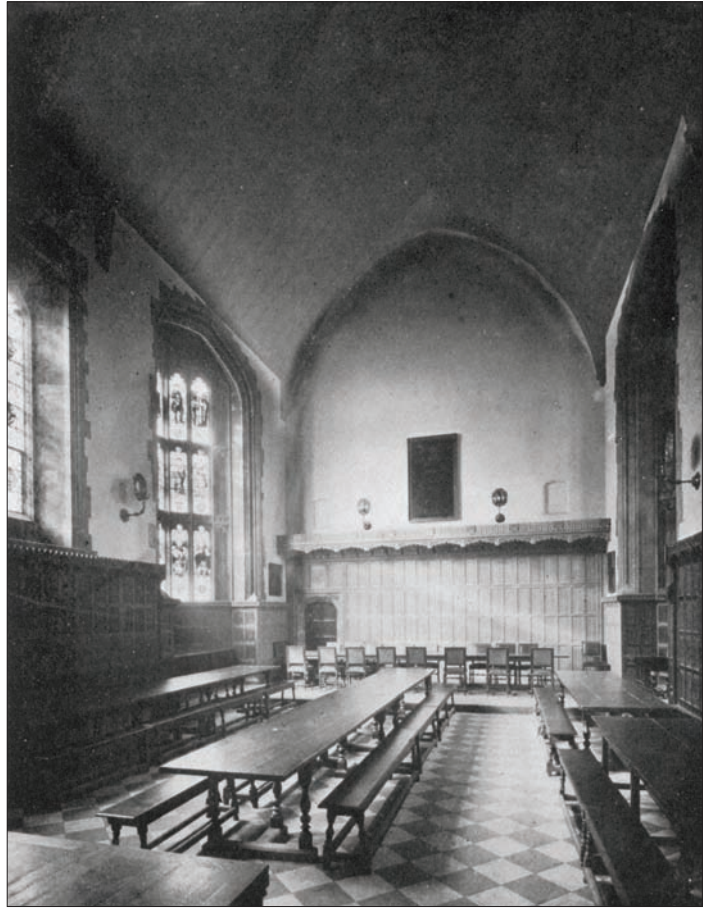
The Hall was the largest building in Christ's College, and the place where members of the College gathered for dinner. The Hall today is quite different from its appearance in Darwin's day. According to Peile "In 1723 money was given to 'beautify' it: which was done by putting deal wainscot over the oak panelling, by covering up the old fireplace, and by hiding the roof with a cylindrical plaster ceiling." It remained thus until 1875 when "the old roof was removed, reconstructed, and replaced; the walls were rebuilt and raised about 6 feet...and new oak panelling was put up, some of the original work being sufficiently sound to remain at the south end." The panelling at the north end was added in 1900. (Peile 1900, p. 31) In 1882 and in following years stained glass portraits were added to the Hall's west oriel. Darwin is represented in the top right and final panel in his scarlet honorary LL.D. gown. The work was done by Messers. Burlison and Grylls. (Peile 1900, p. 16)

Before the meal a Latin grace was read. The Fellows and Fellow Commoners ate a three course meal with port or sherry at their own table on a raised dais at the north end of the Hall. The Pensioners sat together at long tables at the south end of the Hall. The Sizars acted as waiters. After dinner the Fellows and Fellow Commoners would retire to the Combination Room located upstairs behind the gallery at the south end of the Hall. Here they would drink wine or port and converse until evening Chapel at 6pm.

On 20 December 1828 Darwin arrived back in Shrewsbury with his new dog Dash. He visited friends and relatives in Shropshire and Staffordshire for shooting and visits. In a January 1829 letter to Fox Darwin made a rare reference to his College studies: "my Studies consist of Adam Smith & Locke, in the latter of which I suppose you are an adept, & I hope you properly admire it— About the little Go I



The Darwin panel in the stained glass window of the Hall of Christ's College.



The Hall of Christ's College c. 1900 from Peile 1900. Note the plaster ceiling which has since been removed.

am in doubt & tribulation. I have had very little shooting." (*Correspondence*, vol. 1: 74) The "little Go" was the nickname for the University's Previous Examination, which undergraduates took in their second year. According to the *Cambridge University Calendar*, 1829, p. 169, "The subjects of examination are one of the four Gospels or the Acts of the Apostles in the original Greek, Paley's Evidences of Christianity, one of the Greek and one of the Latin Classics". Locke's *An essay concerning human understanding* appeared in the B.A. examination for those who were not candidates for honours. The work by Adam Smith, probably his *Theory of Moral Sentiments*, did not appear in the Previous or B.A. Examinations. It may have been a reading assigned by his College Tutor or Lecturer. Before returning to Cambridge for Lent Term Darwin stayed with his brother in London.

Darwin's second year at Christ's

Darwin returned to Christ's on 24 February 1829. (T.11.25) Fox was gone, he had taken his B.A. degree on 23 January, ranking 88th out of 160. Earlier in the month, Darwin's cousin Hensleigh Wedgwood was elected a Finch and Baines Fellow, but he would hold this only until October 1830. Two days after returning to his comfortable rooms Darwin wrote Fox to report on his stay in London where he had visited entomologists F. W. Hope and J. F. Stephens. The former had generously given Darwin specimens of 160 beetle species for his collection. Darwin ordered a beetle cabinet for £15 to help house his growing collection. Costing such a large sum, this cabinet must have been rather large. Darwin also reported that "By Grahams decided advice, I do not go in for my little Go." John Graham (1794–1865) replaced Shaw as Tutor in 1829. Shipley described Graham as "one of the most brilliant of the *alumni* of the College (fourth Wrangler and Chancellor's Classical Medallist in 1816), who was elected Master of the College in 1830, and was appointed to the Bishopric of Chester in 1848. Graham was one of the small group of Cambridge Liberals in the days of the first Reform Bill, and a strong supporter of the abolition of University tests. As a disciplinarian in College he is said to have been somewhat too easy-going". (Shipley 1924, p. 127)

Darwin may well have experienced this lack of discipline. He wrote to Fox on 1 April 1829: "Last night there was a terrible fire at Linton eleven miles from Cambridge; seeing the reflection so plainly in sky, Hall, Woodyear Turner & myself thought we would ride & see it we set out at 1/2 after 9, & rode like incarnate devils there, & did not return till 2 in the morning. altogether it was a most awful sight." (*Correspondence*, vol. 1 :81) Returning this late should technically have incurred punishment, at least a gate fine, but there is no record of any disciplinary consequences. Either the College took no notice, as when Fox returned "rather late" (Diary 29 Nov. 1824) or perhaps Darwin climbed over the wall as Fox did when returning once at 4.30am. (Diary 23 Nov. 1825)

With his close friend and fellow entomologist Fox no longer present Darwin spent more time with other friends. One of these was an old Shrewsbury school friend, John Price (1803–1887), who remembered: "we were walking up the chalk path to Cherry Hinton Quarries. ... [Darwin] halted with a characteristic & expressive stamp, exclaiming "Price Price, what w.^d I give to be such a naturalist as you" !! This rhapsody will be more amusing, if I add that I believe it was evoked by the simple fact of my knowing Yarrow & other common plants equally well in winter." (Price n.d.)

On 15 March Darwin wrote to Fox of the routine in his College rooms: "I am leading a quiet every-day sort of a life; a little of Gibbons history in the morning & a good deal of *Van. John* [Blackjack], in the evening this with an occasional ride with Simcox & constitutional with Whitley, makes up the regular routine of my days." On 1 April Darwin reported to Fox a confrontation resulting from competition with another Cambridge undergraduate who was raiding Darwin's beetle supply:

Entomology goes on but poorly: a few *Dromius* & *Agonum*'s, together with the *Pæcilus* (with red thighs) make the g[reat] part

of what I have collected this ter[m]. I have caught Mr. Harbour letting [Charles Cardale] Babington have the first pick of the beetles; accordingly we have made our final adieus, my part in the affecting scene consisted in telling him he was a d-d rascal, & signifying I should kick him down the stairs if ever he appeared in my rooms again (*Correspondence*, vol. 1: 81)

At the beginning of June Darwin may have received the latest number of Stephens' *Illustrations of British entomology*, *Haustellata* vol. 2 (appendix) dated 1 June 1829. On page 200 appeared the record of Darwin's capture of a *Graphiphora plecta* (a moth) and the first word Darwin ever published: "Cambridge", the location provided by Darwin as the site of capture. On the 15th another number of Stephens appeared, this time with thirteen species of beetle collected by Darwin. He later described the feeling of seeing his captures in print: "No poet ever felt more delight at seeing his first poem published". (*Autobiography* p. 63) As has often been pointed out, this exact wording was not printed in Stephens. But the entry in volume 3 (p. 266) states: "captured by the Rev. F. W. Hope and C. Darwin, Esq., in North Wales".

Page 136. GRAPHIPHORA plecta. "Cambridge."—C. Darwin, Esq.

Darwin's first published word was "Cambridge".

For a time between 1828 and the summer of 1829 Darwin kept a list of beetle species in an old Edinburgh notebook (DAR 118). He also wrote annotations next to the descriptions of 281 species in his copy of Stephens 1829 – sometimes recording where he collected a species with the date or the person who gave him a specimen. Darwin's copy is in the Cambridge University Library. He obviously became more proficient in capturing and identifying beetles over the years.

Darwin clearly impressed others with his concentrated attention and attainments in beetle collecting. He later recalled: "I remember one of my sporting friends, [James Farley] Turner, who saw me at work on my beetles, saying that I should some day be a Fellow of the Royal Society, and the notion seemed to me preposterous." (Darwin was elected a Fellow of the Royal Society in 1839.) However in these early days he was still unable to remember the Latin species names. A family friend remembered that near the end of his life Darwin told her "he found the greatest difficulty in remembering their names so that his fellow students would often for a joke to pick up the commonest kind of beetles, & put them down suddenly before him, & say "now Darwin you're the man for beetles, what's the name of that?" — for the life of him he could not remember." (Forster 1883)

Darwin left Christ's on 8 June 1829 for London. On the 10th he was in Henley for the first Oxford vs. Cambridge boat race (Oxford won easily). He returned to Shrewsbury and continued his usual lifestyle of shooting and beetling in Shropshire and Staffordshire. In mid-June he went on an entomological tour in North Wales with F. W. Hope. In July Darwin wrote to Fox that, although he planned to entomologize and shoot throughout the summer, he also needed to prepare for the Previous Examination. "I must read for my little Go. Graham smiled & bowed so very civilly, when he told me that he was one of the six

No	
24	<i>Isolytus destructa</i> . Cam
25	<i>Engis rufipennis</i>
26	<i>Gryphus egypti</i>
27	<i>Caterelis</i>
28	<i>Neotaphus</i>
29	<i>Helophilus obliquus</i> . Cam
30	<i>Lophia pœcilis</i> . Cam
31	<i>Tibranus</i> . Cam:
32	<i>Cryptophilus minuta</i> . Barnwell
33	<i>Cryp: ... bipunctulata</i> . Do
34	<i>Cryp. gracilis</i> ? Weaver.
35	<i>Intidula punctatipennis</i> . Woodhouse June. 29
36 <i>sordida</i> . Shrewsbury.
37	<i>Meligethes rufipes</i> . (see <i>tripennis</i>)
38	<i>Rhyzophagus</i> ...
39	<i>Anthemus varius</i> . Shrew.
40	<i>Am: ... verbasii</i> Shrew.
41	<i>Tro ferruginea</i> ? Shrew: (taken flying.)
42	<i>Byrrhus dorsalis</i> . Great pits Shrew. - 28
43	<i>Malechius ruficornis</i> . Cam. Summer - 29
44	<i>Elatris sajensis</i> . Toppin
45	<i>Hylarinus subcatus</i> . June. Shrew: - 29
46	<i>Callidium bapulum</i> . Hope
47.	<i>Dromius bifasciatus</i> . Weaver

A page from Darwin's notebook (DAR 118) listing beetle specimens together with their location of collection or the name of the person who gave Darwin a specimen. Courtesy of the Syndics of Cambridge University Library.

appointed to make the examination stricter, & that they were determined they would make it a very different thing from any previous examination that from all this, I am sure, it will be the very devil to pay amongst all idle men & Entomologists." (*Correspondence*, vol. 1: 89)

In early October Darwin attended a music meeting in Birmingham with his Wedgwood relations. He returned to Christ's on 12 October 1829. (T.11.25) He entomologized with Leonard Jenyns (1800–1893), vicar of nearby Swaffham Bulbeck. Jenyns (later named Blomefield) recalled many years later:

[Darwin] was at that time a most zealous Entomologist...He occasionally visited me at my Vicarage, at Swaffham Bulbeck, and we made Entomological excursions together, sometimes in the Fens – that rich district yielding so many rare species of insects and plants

– at other times in the woods and plantations of Bottisham Hall. He mostly used a sweeping net, with which he made a number of successful captures I had never made myself, though a constant resident in the neighbourhood. (Blomefield 1887, p. 44)

Darwin became a fixture at the Friday evening soirées at the home of the Professor of Botany, John Stevens Henslow (1796–1861), where the scientifically-minded of the University, young and old, were welcomed. As Darwin later wrote in a memorial to Henslow:

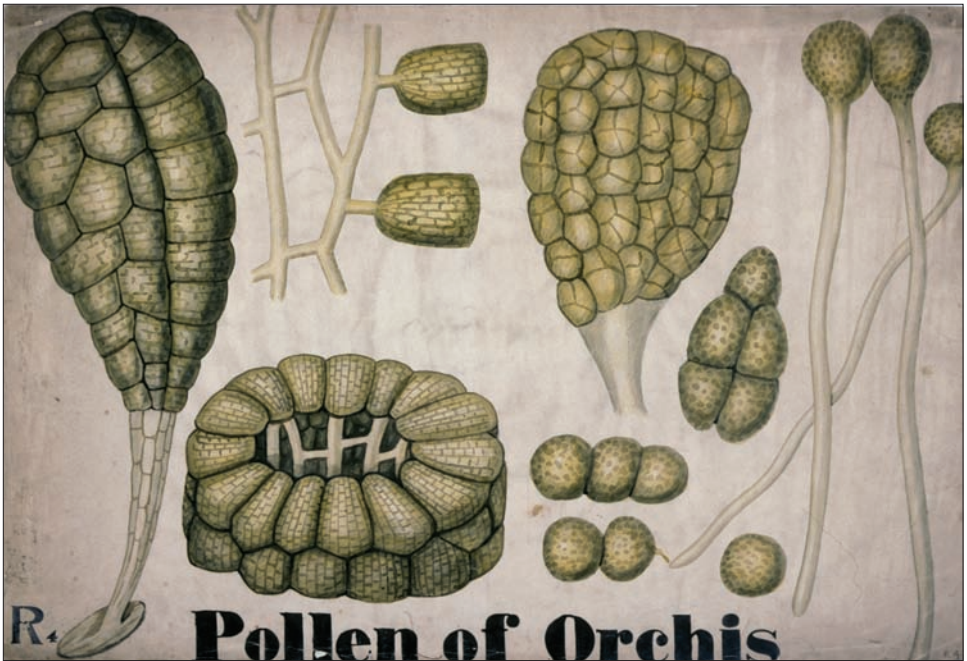
Once every week he kept open house in the evening, and all who cared for natural history attended these parties, which, by thus favouring intercommunication, did the same good in Cambridge, in a very pleasant manner, as the Scientific Societies do in London. At these parties many of the most distinguished members of the University occasionally attended; and when only a few were present, I have listened to the great men of those days, conversing on all sorts of subjects, with the most varied and brilliant powers. This was no small advantage to some of the younger men, as it stimulated their mental activity and ambition. (Jenyns 1862, p. 52)

Darwin also enrolled in Henslow's university botany lectures in 1829–1831. Darwin recalled that he "liked them much for their extreme clearness, and the admirable illustrations; but I did not study botany. Henslow used to take his pupils, including several of the older members of the University, field excursions, on foot, or in coaches to distant places, or in a barge down the river, and lectured on the rarer plants or animals which were observed. These excursions were delightful." (*Autobiography*, p. 60) Many years later Darwin referred to his friendship with Henslow as the most important influence during his time at Cambridge.

...during the latter half of my time at Cambridge [I] took long walks with [Henslow] on most days; so that I was called by some of the dons "the man who walks with Henslow"; and in the evening I was very often asked to join his family dinner. His knowledge was great in botany, entomology, chemistry, mineralogy, and geology. His strongest taste was to draw conclusions from long-continued minute observations. (*Autobiography*, p. 64)

To give an example of Henslow's noble character, Darwin mentioned some of his scientific work that might otherwise have gone unrecorded:

Whilst examining some pollen-grains [under a microscope] on a damp surface I saw the tubes exerted, and instantly rushed off to communicate my surprising discovery to him. Now I do not suppose any other Professor of Botany could have helped laughing at my coming in such a hurry to make such a communication. But he agreed how interesting the phenomenon was, and explained its meaning, but made me clearly understand how well it was known; so I left him not in the least mortified, but well pleased at having discovered for myself so remarkable a fact, but determined not to be in such a hurry again to communicate my discoveries. (*Autobiography*, p. 66)



Another episode experienced with Henslow captured a dramatic scene in the streets of Cambridge:

I once saw in his company in the streets of Cambridge almost as horrid a scene, as could have been witnessed during the French Revolution. Two body-snatchers had been arrested and whilst being taken to prison had been torn from the constable by a crowd of the roughest men, who dragged them by their legs along the muddy and stony road. They were covered from head to foot with mud and their faces were bleeding either from having been kicked or from the stones; they looked like corpses, but the crowd was so dense that I got only a few momentary glimpses of the wretched creatures. Never in my life have I seen such wrath painted on a man's face, as was shown by Henslow at this horrid scene. He tried repeatedly to penetrate the mob; but it was simply impossible. He then rushed away to the mayor, telling me not to follow him, to get more policemen. I forget the issue, except that the two were got into the prison before being killed. (*Autobiography*, p. 65)

One of the "admirable illustrations" used in Henslow's botany lectures. Reproduced courtesy of the Whipple Museum of the History of Science, University of Cambridge.

In early November Erasmus stayed with Darwin for a few days. The brothers spent long hours at the gallery of the Fitzwilliam Museum. Thus ended Darwin's second year at Christ's College. He had settled into a congenial world of genteel pleasures and pastimes. As Janet Browne noted "[Darwin's] Cambridge was an easy-going affair, for the most part happily engaged with the internal world of his college in preference to any of the wider issues that might rampage outside." (Browne 1995, p. 93)

Darwin's third year at Christ's

After the Christmas break Darwin returned from London to Christ's on New Year's Day 1830. (T.11.25) About this time Darwin and seven friends formed a weekly dining club called the "Gourmet Club" or "Glutton Club". The club consisted of Darwin, Herbert, Whitley, Watkins, Cameron, James Heaviside of Sidney Sussex College, Robert Blane of Trinity College and Henry Lowe of Trinity Hall. They dined in each other's rooms in rotation. Herbert later recalled the formation of the club in a letter to Francis Darwin:

At our first meeting Cameron proposed that we should call ourselves the "Glutton Club" to show our contempt for another set of men who called themselves by a long Greek title, meaning – "fond of dainties;" but who falsified their claim to such a designation by their weekly practice of dining at some road-side inn, 6 miles from Cambridge, on Mutton Chops, or Beans & Bacon. The name we adopted was in truth most dysphemistic, if I may use such a word; for we were none of us given to excess, but our little dinners were very recherchés & well-served; & we generally wound up the evening with a game of mild Vingt-&-un. (Herbert 1882.06.02.)

Another member of the club, Watkins, remembered the club somewhat differently:

[Darwin] was a member of the "Gourmet Club" – so called not because its members were gluttons, but because they made a devouring raid on birds & beasts which were before unknown to human palate. Our menu was certainly a choice one but the appetite for strange flesh did not last very long & I think the Club came to an untimely end by endeavouring to eat an old brown owl which was indescribable! We tried hawk & bittern & other delicacies wh. I have forgotten. (Watkins [1887])

Cambridge did not consist exclusively of dining, shooting and beetling for Darwin. In addition to his College lectures and readings he had to pass the two set University examinations. On Wednesday 24 March 1830, after weeks of fervent cramming, Darwin nervously entered the Senate House to take the Previous Examination or 'Little Go'. Candidates were examined orally, in turn. Three hours in the morning were spent on the classics and three hours in the afternoon on the New Testament and Paley. The results were posted the following day, when Darwin wrote to Fox triumphantly:

My dear Fox

I am through my little Go,!!! am too much exalted to humble myself by apologising for not having written before. – But, I assure you before I went in & when my nerves were in a shattered & weak condition, your injured person often rose before my eyes & taunted me with my idleness. But I am through through through. I could write the whole sheet full, with this delightful word. – I went in yesterday, & have just heard the joyful news. – I shall not know for a week, which class I am in. – The whole examination is carried on in a different system. It has one grand advantage, being over in one day. They are rather strict; & ask a wonderful number of questions (*Correspondence*, vol. 1: 101)

In March Darwin wrote Fox "My new [beetle] cabinet is come down & a gay little affair it is." In a later letter written from Shrewsbury Darwin described the cabinet from memory: "The man who made my cabinet is W. Edwards 29 Wilton St. Westminster. I advise to get one bigger than mine. – Mine cost £5.10. & contained 6 drawers, depth, 1¹/₂3. breadth 1¹/₂7 – & whole cabinet stood in height 1¹/₄. –" (*Correspondence*, vol. 1: 127) Dr Milo Keynes, a great-grandson of Darwin, owns a collecting cabinet which he believes came from Down House and belonged to Darwin. Dr Keynes recalled that the cabinet contained shells when he inherited it from his mother. The cabinet somewhat resembles the one described by Darwin. The firm of Cheffins Antiques in Cambridge estimates the cabinet dates from the early nineteenth century. It is made of mahogany, contains six shallow drawers which have cork-lined bases. Some have a camphor compartment at the front. At some later point the drawers were lined with paper. In some places the paper has been torn away revealing the cork. In one of these exposed areas two very fine insect pins are stuck in the cork, and bent over. Inside one of the camphor compartments was a minute printed label: "Ligustri Privet.", (a type of moth). This label is almost certainly from a later use of the cabinet after Darwin's time. The dimensions in Darwin's letter are: 19 wide, 16 high, 15 deep.

Keynes's cabinet measures: 16 wide, 19 high, 19 deep. Although not identical, both measurements refer to a very deep rectangular box. Dr Keynes has kindly agreed to lend his cabinet to Christ's College to be displayed in Darwin's room in 2009. If it was one of Darwin's Cambridge beetle cabinets, then it will have returned home after 178 years.

In April Darwin wrote to Fox "I find I get on very slowly with my cabinet, & shall be very glad of your assistance. I have only yet got to the *Amarœ*. –... I have been seeing a good deal lately of Prof: Henslow; I took a long walk with him the other day: I like him most exceedingly, he is so very goodnatured & agreeable"

On 3 June 1830 Darwin was recorded as leaving Christ's at the end of Easter Term. (T.11.25) He spent a few days in London before heading



The insect cabinet belonging to Dr Milo Keynes.

north to Shrewsbury. In August he returned to North Wales for collecting beetles and fishing followed by the usual rounds of shooting in Shropshire and Staffordshire. In September he wrote to Fox about his new horse which he hoped would make a very good hunter. Darwin took the horse with him to Cambridge when he returned to Christ's on 7 October 1830, for the start of the Michaelmas Term. (T.11.25) He wrote to Fox "I arrived here in my most snug & comfortable rooms yesterday evening". Herbert recalled an incident which occurred at the beginning of this term.

Darwin asked me to take a long walk with him in the Fens, to search for some natural objects he was desirous of having. After a very fatiguing day's work we dined together late in the evening, at his rooms in X^{ts}. Coll.; and as soon as our dinner was over, we threw ourselves into easy chairs, & fell sound asleep. I was the first to awaken, about 3 in the morning, when having looked at my watch, & knowing the strict rule of St. John's, which required men in statu pupillari to come into college before midnight, I rushed homeward at the utmost speed, in fear of the consequences, but hoping that the Dean w^d accept the excuse as sufficient, – when I told him the real facts. He, however, was inexorable, and refused to receive my explanations, or any evidence I c^d. bring; and although during my undergraduateship I had never been reported for coming late into College – now, when I was a hard-working B.A., and had 5 or 6 pupils, he sentenced me to confinement to the College Walls for the rest of the term." (Herbert 1882.06.02.)

Darwin was outraged by Herbert's punishment, but then Darwin was accustomed to the relaxed atmosphere at Christ's. This recollection also reveals that Darwin had two easy chairs in his rooms. In November Darwin wrote to Fox that because of all the reading involved in "getting up all my subjects" he was left no time to catch or send insects.

Darwin paid Henslow to act as his private tutor in mathematics. Darwin wrote to Fox that "the hour with him is the pleasantest in the whole day". At Henslow's botany lectures Darwin helped to arrange the specimens and materials before the lectures, and was generally considered to be Henslow's favourite. William Allport Leighton, an old Shrewsbury school friend recalled: "I remember that the Professor in the concluding remarks at the close of his course of lectures said he hoped his teaching had influenced many to perseverance – certainly he knew it had influenced one – no doubt he meant Darwin." (Leighton 1886)

Darwin spent the Christmas vacation of 1830 in Cambridge preparing for his final examination. He later recalled this time in his *Autobiography*:

in my last year I worked with some earnestness for my final degree of B.A., and brushed up my Classics together with a little Algebra and Euclid, which latter gave me much pleasure, as it did whilst at school. In order to pass the B.A. examination, it was, also, necessary to get up Paley's *Evidences of Christianity*, and his *Moral Philosophy*. This was done in a thorough manner, and I am



convinced that I could have written out the whole of the Evidences with perfect correctness, but not of course in the clear language of Paley. The logic of this book and as I may add of his *Natural Theology* gave me as much delight as did Euclid. The careful study of these works, without attempting to learn any part by rote, was the only part of the Academical Course which, as I then felt and as I still believe, was of the least use to me in the education of my mind. I did not at that time trouble myself about Paley's premises; and taking these on trust I was charmed and convinced by the long line of argumentation. (*Autobiography*, pp. 58-9)

Cartoons of Darwin collecting beetles by Albert Way. From Cambridge University Library DAR 204:19. Courtesy of the Syndics of Cambridge University Library.

Only after the voyage of the *Beagle* would Darwin reject Paley's argument of design, already quite outdated by the 1830s. (Hanging in the College Old Library is the last Paley examination paper from 1920.) Darwin emphasized how his own work superseded Paley's argument in his *Autobiography*:

The old argument of design in nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings and in the action of natural selection, than in the course which the wind blows. Everything in nature is the result of fixed laws. But I have discussed this subject at the end of my book on the *Variation of Domestic Animals and Plants*, and the argument there given has never, as far as I can see, been answered. (*Autobiography*, pp. 87-8)

Darwin's last terms at Christ's

Darwin's final examination for the B.A. degree, which consisted of three days of written papers, occurred between 14–20 January 1831. Darwin was a poll candidate. The poll (an abbreviation of the Greek 'Hoi Polloi' for the crowd) consisted of those students who took an ordinary pass degree rather than an honours degree. The examination consisted of six parts: Homer, Virgil, Euclid, arithmetic and algebra, Paley's *Evidences of Christianity* and *Principles of moral and political philosophy*, and Locke's *An essay concerning human understanding*.

The papers were marked by Friday 21 January. On Saturday the 22nd a second edition of the *Cambridge Chronicle* appeared which showed Darwin placed 10 out of 178 in the polls. There were only 86 honours candidates that year. The following day Darwin wrote to Fox "I sent you a newspaper yesterday, in which you will see what a good place I got in the Polls". As Darwin recalled in his *Autobiography*, p. 59, "By answering well the examination questions in Paley, by doing Euclid well, and by not failing miserably in Classics, I gained a good place among the **οἱ πολλοί**, or crowd of men who do not go in for honours". However, Darwin had not resided the requisite number of terms so he could not yet be awarded his degree. His final two terms at Christ's, without the pressure of preparing for examinations, were some of the most important he spent in Cambridge.

In February he read J. F. W. Herschel's *Preliminary discourse* (1831), an authoritative and thought-provoking model on correct methods of scientific investigation. It was essentially a survey of the science of the day, as well as an account of the progress of scientific knowledge. Herschel's law of continuity meant that all parts of nature and science would be interconsistent. Given the collection of enough facts, powerful general laws could be deduced. Darwin also read Alexander von Humboldt's *Personal narrative* of his expedition to northern South America.

I read with care and profound interest Humboldt's Personal Narrative. This work and Sir J. Herschel's Introduction to the Study of Natural Philosophy stirred up in me a burning zeal to add even the most humble contribution to the noble structure of Natural Science. No one or a dozen other books influenced me nearly so much as these two. I copied out from Humboldt long passages about Teneriffe, and read them aloud on one of [Henslow's] excursions (*Autobiography*, pp. 68–9)

Some years later Darwin described his time in Cambridge after his degree: "During these months lived much with Prof. Henslow, often dining with him, & walking with. became slightly acquainted with several of the learned men in Cambridge. which much quickened the little zeal, which dinner parties & hunting had not destroyed. In the Spring...talked over an excursion to Teneriffe." (Journal) Darwin's planned trip to Tenerife, in the footsteps of Humboldt, never materialized.

John Medows Rodwell (1808–1900) accompanied some of Henslow's excursions and recalled some of Darwin's exploits:

In one of Professor Henslows Botantizing excursions to Bottisham

Fen I well recollect an amusing incident wh[ich] befel Darwin. In order to clear the ditches we were provided with several jumping poles with which we had to swing ourselves across. One object of our search was to find the [utricularia], a specimen of which caught his keen eye, and in order to secure he attempted to jump the ditch on the opposite side of which it grew. Not however having secured sufficient impetus for the leap, the pole stuck fast in the middle in a vertical position, of course with D[arwin]. at the top. Nothing daunted however he coolly slid down, secured the prize, and brought it, all much besmirched as he was to the amused Professor.

We once had a very amusing expedition to Gamlingay heath in search of Natter-jacks. Darwin was very succesful in detecting the haunts of these pretty reptiles and catching them. He brought several to Profr Henslow who said laughingly – well Darwin “are you going to make a Natter-jack pie?” It was on this day that he was very succesful in finding plants: particularly the *Anemone pulsatillus* and the *Colchecum antennatus* which had never before been found except on the Gogmagogs and in L’Osbornes park.

My acquaintance with Mr Darwin was made at Professor Henslow’s House, at whose soirees and lectures he was always present and was most useful to the professor in arranging specimens and getting the room in order for Lectures. It was obvious that Darwin was Henslow’s favourite pupil & that he saw in him of prognostications of future distinction & eminence as a naturalist. One feature of D[arwin].s mind I particularly used to notice – viz. his determination to prosecute all his investigations to the very bottom. Professor Henslow used to say “What a fellow that D[arwin]. is for asking questions!” I happened one day to mention some rather rare plant growing in the neighbourhood of Bury St. Edmunds, which I promised to send him – but forgot to do so – & soon received a very amusing letter to say that if I did not send them he would come for them in propria persona & charge me for the journey!

Darwin later recorded, writing in 1838, “In the Spring [1831], Henslow persuaded me to think of Geology & introduced me to Sedgwick.” (Journal) However Darwin wrote in his *Autobiography* in 1876 that “Public lectures on several branches were given in the University, attendance being quite voluntary; but I was so sickened with lectures at Edinburgh that I did not even attend Sedgwick’s eloquent and interesting lectures.” Yet the recollections of some university friends give such specific details (and Darwin himself noted that they were eloquent and interesting) that it seems he did attend Sedgwick’s lectures at some point. Darwin might have meant that he did not attend any before his degree. Rodwell remembered an occasion when Darwin not only impressed Sedgwick, but started an undergraduate craze:

Professor Sedgwick happened one day to mention a spring issuing from one of the chalk hills at Trumpington or Coton which deposited carb. of lime very prettily upon twigs &c. Darwin said to me, “I shall go and test that water for myself”, which he did and

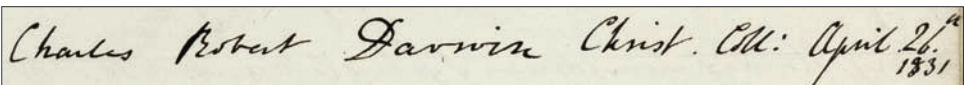
found the fact to be as Sedgwick had stated it. Not content with this he deposited a large bush in the spring and at a subsequent lecture presented it to Sedgwick who exhibited it as being, what it really was, a very beautiful specimen. Several members of Sedgwick's class followed D[arwin]'s example and adorned their rooms with similar specimens of Increstation. (Rodwell nd)

Elsewhere Rodwell recalled a geological conversation with Darwin: we were talking over one of Sedgwick lectures in wh. he had spoken of the enlarged views both of Time & Space what Geology could give. he said to me – It strikes me that all our knowledge about the structure of our Earth is very much like what an old hen c^d know of the hundred-acre field in a corner of which she is scratching! – & afterwards, “what a capital hand is Sedgwick for drawing large cheques upon the Bank of Time!” – which of course was in reference to some speculation of Sedgwick's as to the probable antiquity of the world. (Rodwell 1882)

In early May Darwin received the anonymous gift of a Gould-type microscope, made by the instrument maker Cary in London, with the accompanying note:

If M^r. Darwin will accept the accompanying Coddington's Microscope, it will give peculiar gratification to one who has long doubted whether M^r. Darwin's talents or his sincerity be the more worthy of admiration, and who hopes that the instrument may in some measure facilitate those researches which he has hitherto so fondly and so successfully prosecuted. (*Correspondence*, vol. 1: 122)

He later learned that the gift was from Herbert. The original microscope is at Darwin's home Down House, now a wonderful museum, the property of English Heritage.

A photograph of a handwritten signature in cursive ink. The text reads "Charles Robert Darwin Christ. Coll: April 26. 1831". The signature is written on a light-colored background, possibly a piece of paper or parchment.

Darwin's signature in the Subscriptions book. Books of subscriptions for degrees, Cambridge University Archives (Matric. 11). Courtesy of the Syndics of Cambridge University Library.

At the end of April Darwin's degree was conferred, along with one other student from Christ's. Darwin signed the Subscriptions book "Charles Robert Darwin Christ. Coll: April 26.th 1831" Two days later he wrote to his sister Caroline: "I took my Degree the other day: it cost me £15: there is waste of money." (*Correspondence*, vol. 1: 122) Nevertheless Darwin's degree is officially recorded in 1832. Francis Darwin explained: "he was unable to take his degree at the usual time,—the beginning of the Lent Term, 1831. In such a case a man usually took his degree before Ash-Wednesday, when he was called "Baccalaureus ad Diem Cinerum," and ranked with the B.A.'s of the year. My father's name, however, occurs in the list of Bachelors "ad Baptistam," or those admitted between Ash-Wednesday and St. John Baptist's Day (June 24th); he therefore took rank among the Bachelors of 1832." (F. Darwin 1887, vol. 1: 163)

His father gave him £200 to settle his Cambridge debts before closing this part of his life. Darwin's time at Christ's College came to an end

when he finally left after the Easter Term on 16 June 1831. (T.11.25)
Darwin later summarized his time in Cambridge:

my time was sadly wasted there and worse than wasted. From my passion for shooting and for hunting and when this failed, for riding across country I got into a sporting set, including some dissipated low-minded young men. We used often to dine together in the evening, though these dinners often included men of a higher stamp, and we sometimes drank too much, with jolly singing and playing at cards afterwards. I know that I ought to feel ashamed of days and evenings thus spent, but as some of my friends were very pleasant and we were all in the highest spirits, I cannot help looking back to these times with much pleasure. ... Upon the whole the three years which I spent at Cambridge were the most joyful in my happy life; for I was then in excellent health, and almost always in high spirits. (*Autobiography*, pp. 60, 68)

His friend Herbert ended his letter of recollections, after Darwin's death, with a heartfelt epitaph:

It w^d be idle for me to speak of his vast intellectual powers – which according to the verdict of all Europe have raised him to the foremost-place in the ranks of natural Science.

But I cannot end this cursory & rambling sketch without testifying – & I doubt not all his surviving college friends w^d. concur with me – that he was the most genial, warm-hearted, generous & affectionate of friends – that his sympathies were with all that was good & true, & that he had a cordial hatred for anything false, or vile, or cruel, or mean, or dishonourable. He was not only great – but pre-eminently good, & just, & loveable – (Herbert 1882.06.02)

St. Andrew's Church across the street from Christ's College by F. Mackenzie, engraved by J. Le Keux. Note the tradesmen's entrance to Christ's on the left.



Voyage of the *Beagle* – and return to Cambridge

In August 1831 Darwin took an important and instructive geological tour of Wales with Adam Sedgwick. Upon returning home, Darwin received a letter from Henslow which changed his life, and the world, forever. It was the offer to travel on board HMS *Beagle* as naturalist. After visiting Henslow in Cambridge and hurried preparations Darwin departed on the *Beagle* in December 1831. The *Beagle* voyage is recounted in many works, foremost of which is Darwin's own *Journal of researches* (1839). Throughout the voyage Darwin shipped home thousands of geological, botanical and zoological specimens to Henslow in Cambridge.



HMS *Beagle* in the Galapagos, 17 October 1835 2.15 p.m., by John Chancellor. Reproduced courtesy of Gordon Chancellor.

The *Beagle* returned to England in October 1836, after circumnavigating the globe. After disembarking Darwin went directly to Shrewsbury to see his family, before moving back to Cambridge to arrange his veritable mountain of specimens in December 1836. At first he considered living in Christ's College and inquired about rooms from the Tutor, Ash. But as Darwin felt he would probably need to move to London after a few months, the year-long College accommodation arrangement, as well as the need to furnish a room and buy crockery etc., was inconvenient. Instead, Adam Sedgwick found lodgings for Darwin at 22 Fitzwilliam Street. The house is marked today with a stone plaque. Darwin arrived in Cambridge on 13 December and stayed with Henslow. On the afternoon of his arrival Joseph Romilly visited the Henslows, as he recorded in his diary: "Drank tea with M^{rs} Henslow to meet Marchesa &c: here also I met M^r Darwin (g[rand]. s[on]. of Bot^{ic} Garden) who is just returned from his travels round the world: he declares that in 'terra del fuego' whenever a scarcity occurs (wch is every 5 or 6 years) they kill the old women as the most useless living creatures: in conseq. when a famine begins the old women run away into the woods & many of them perish miserably there..." (Bury 1967. p. 110.) Darwin similarly entertained dinner guests with voyager's tales at Christ's, where George Edward Paget (1809–1892) was also dining. Paget later recalled:

I met [Darwin] at dinner in the rooms of Ash, who was then Tutor in the College. ...He told me also that he had tested in the market at Lima the acute faculty of smell at that time commonly attributed to Vultures. There was a row of these birds for sale I think. [Darwin] walked before them and past them with a large piece of meat in his pocket. The birds took no notice whatever. He then threw within their reach the piece of meat wrapped up in paper. Still the birds took no notice. But when with the end of a stick, he uncovered a part of the meat they instantly rushed to seize it. (Paget 1882. Darwin wrote of this experiment in *Birds*, pp. 5–6)

Darwin wrote to Fox on 15 December "It appears to me, most strange to stand in the court of Christ, and not to know one undergraduate: it was however some kind of satisfaction to find all the old "gypps"". On 16 December Darwin moved into his lodgings in Fitzwilliam Street. He continued to dine at Christ's. The College wine book demonstrates that he dined at Christ's on 19 October during a short stay in Cambridge and was possibly listed as "MA" for 26 December. On the 29th "Mr Darwin [fined for being] too late in hall." He paid his fine with a half bottle of port on each of the two following evenings. On 23 February 1837 Darwin bet one of the Fellows, Edward Baines, that he could guess the height of the ceiling in the Combination Room (now the Old Combination Room) overlooked by a portrait of the Foundress of the College, Lady Margaret, and a full length portrait of William Paley.

23 Feb. 1837. Mr Darwin v. Mr Baines. That the Combination Room measures from the ceiling to the floor more than (x) feet.

N.B. Mr Darwin may measure at any part of the room he pleases. (F. Darwin 1887, vol. 1: 279)

Darwin's name is crossed through, which means he lost the bet. It was forbidden to bet for money, so bets were always for a bottle of port. Indeed if the person laying a bet forgot to say it was for a bottle, he could be fined a bottle! Interestingly, Baines bet on the height of the Combination Room ceiling three years before, so he probably knew he would beat the world traveller.

Darwin recorded in his pocket diary or Journal "Jan [1837]: Cambridge – time spent in arranging general collection; examining minerals, reading, & writing little journal in the evenings Paid two short visits to London. – & read paper on elevation of coast of Chile." On 27 February he presented a paper at a meeting of the Cambridge Philosophical Society. The minutes of the General Meeting record: "An account by Mr C. Darwin of fused sand tubes found near the Rio Plata, which were exhibited along with several other specimens of rocks." Darwin wrote to his sister Caroline: "I have just been reading a short paper to the Philosoph. Soc^y. of this place, and exhibiting some specimens & giving a verbal account of them. It went off very prosperously & we had a good discussion in which Whewell & Sedgwick took an active part. ... On Friday morning I migrate [to London]. My Cambridge life is ending most pleasantly." (*Correspondence*, vol. 2: 8–10) Apparently on 6 March 1837 Darwin moved to London to be closer to the scientific colleagues and institutions who were discussing his *Beagle* collections. (Journal) Darwin wrote to Fox from London "The only evil I found in Cambridge, was its being too pleasant". (*Correspondence*, vol. 2: 11) Darwin's formative life of living in Cambridge had come to an end.

***Origin of Species* and honorary Cambridge degree**

After twenty years of tireless scientific publishing and research, Darwin published his life's work, *On the Origin of Species*, in 1859. Its importance in altering our understanding of life on Earth is difficult to exaggerate. Between the covers of a single volume Darwin managed to demonstrate the most fundamental patterns of life on Earth. At a stroke all of the families, genera and countless thousands of species were all connected in one single and beautifully simple system. All life is related, genealogically, on a great branching tree, the tree of life. He called it 'the theory of descent with modification through natural selection'.

Darwin began by explaining how he came to doubt the stability of species and how long he had worked on the subject. The brute facts of the similarities of different species, the similarities during embryological development of members of the same genus, geographical distribution, the progressive succession of fossil forms and so forth showed that species change. But Darwin also showed how they changed and, most importantly, how they came to be so wonderfully adapted to their environments, and their immensely complex relationships with one another. Natural selection explains how adaptation occurs, over many generations, given the commonly accepted, but often overlooked, properties of living things. The conclusion to the *Origin of Species* is still stirring today:

...all living things have much in common, in their chemical composition, their germinal vesicles [eggs and sperm], their cellular structure, and their laws of growth and reproduction. ... There is grandeur in this view of life, with its several powers, having been originally breathed 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 book was immediately controversial and widely discussed. The reactions to Darwin's evolutionary theories were varied and pronounced. In zoology, taxonomy, botany, palaeontology, philosophy, anthropology, psychology, literature and religion Darwin's work engendered profound reactions—many of which are still ongoing. However the remarkable fact is that within twenty years the international scientific community had accepted that Darwin was right, evolution is a fact.

By the 1870s Darwin was consequently one of the most famous and revered living naturalists. On 17 November 1877 he was awarded an honorary LL.D. (Doctor of Laws) degree by the University of Cambridge. The economist Neville Keynes (1852–1949) witnessed the ceremony and recorded in his diary:

The honorary degree of LLD was conferred upon Darwin in the Senate House amidst a scene of some disorder. The building was crammed, floor and galleries, the undergraduates being chiefly in the galleries; and it was of course an occasion on which the undergraduate wit felt bound to distinguish itself. The chief pleasantry consisted of a monkey swung across by strings from gallery to gallery, which monkey was in the course of the

proceedings to have been changed into a man. Before however this desirable consummation was reached, the representative of the original ancestor, (than whom he was less fortunate), was seized by one of the proctors, & thus prevented from fulfilling his high destiny. The perpetrators of the joke were very wrath, & vented their fury chiefly in groans for Humphreys, the most unpopular of the proctors. He was also made the butt of such remarks as this, Would Dr. Darwin kindly afford us some information regarding the ancestors of Mr. Humphreys? – a sally which took amazingly. Sandys, the public orator, introduced Darwin, according to custom, in a rather long Latin oration, wh. was delivered amidst a ceaseless fire of interruptions, (chiefly feeble), from the wittiest of the undergraduates. Sandys (I imagine inadvertently) made use of the word apes, & then the cheering was enormous. Darwin bore himself in a rather trying position with remarkable dignity; but I heard afterwards that his hand shook so much while he was signing the registry, that his signature was scarcely legible. Another emblem swung from the galleries was a large ring of iron, adorned with ribbons, supposed to represent the missing link. It was ultimately swung down into the lap of one of the lady visitors, who pluckily cut it down and appropriated it, amidst tremendous applause. (Keynes 1877)



A photograph of what is purportedly the stuffed monkey that was suspended above Darwin at Senate House. The monkey, wearing a cap and gown, is sitting on copies of Darwin's *Descent of Man, Expression of the Emotions and Origin of Species*.

Darwin's wife, Emma (1808–1896), described the same event in a letter to her son William from a Darwin family perspective:

There seemed to be periodical cheering in answer to jokes which sounded deafening; but when [Darwin] came in, in his red cloak, ushered in by some authorities, it was perfectly deafening for some minutes....We had been watching some cords stretched across from one gallery to another wondering what was to happen, but were not surprised to see a monkey dangling down which caused shouts and jokes about our ancestors, etc. ...At last the Vice-Chancellor appeared, more bowing and hand-shaking, and then [Darwin] was marched down the aisle behind two men with silver maces, and the unfortunate Public Orator came and stood by him and got thro' his very tedious harangue as he could, constantly interrupted by the most unmannerly shouts and jeers... At last he got to the end with admirable nerve and temper, and then they all marched back to the Vice-Chancellor in scarlet and white fur, and [Darwin] joined his hands and did not kneel but the Vice-Chancellor put his hands outside and said a few Latin words, and then it was over, and everybody came up and shook hands....I felt very grand walking about with my LL.D. in his silk gown. (Litchfield 1915, vol. 2: 230–1)

Darwin later wrote to Fox 2 December 1877: "We had a grand time of it in Cambridge & I ~~went~~ saw my old rooms in Christ's where we spent so many happy days." (Christ's College Library, Fox 155)

In 1878 Darwin made a rare contribution to Cambridge University reform. He co-signed a memorial to the Vice-Chancellor proposing that candidates for honours should no longer be required to pass an examination in Greek. (Darwin 1878) The memorial, also reprinted in

The Times, was only one of many in a long and circuitous debate about University reforms.

Inspired by the award of Darwin's honorary degree, meetings were held in the Combination Room at Christ's College to propose a memorial to Darwin. After £400 was raised by subscription, Darwin's portrait was painted in oil by William Blake Richmond in June 1879. It now hangs outside the Zoology Department Library. Emma Darwin called it "the red picture" (because of the scarlet LL.D. gown), "I thought it quite horrid, so fierce and so dirty". (Litchfield 1915, vol. 2: 248.)

Darwin died at his home, Down House, Kent, on 26 April 1882. There was no deathbed conversion or retraction of his theories as often alleged. (See Moore 1994) Darwin was buried after a state funeral in Westminster Abbey. An unknown writer at Christ's College amended the College record book 'Admissions 1815–1852' (T.3.1): "Name off April 1882 Dead", thus finally signing Darwin off the books as a member of Christ's College.

The international reaction to Darwin's death was unprecedented. Hundreds of obituaries were published around the world. Reading these today it is striking how consistent they are. This might seem surprising coming from so many writers from so many different backgrounds, and before biographies and history books had had the chance to popularize fixed versions of Darwin's life. What emerged in the obituaries was the almost simultaneous effusion of a generation – a generation which had read and experienced first-hand Darwin's work and impact. Many writers declared that Darwin had effected a revolution in our understanding of nature unrivalled by any thinker since Newton, or as others put it, unrivalled in any age. The popular science writer Grant Allen wrote in *The Academy*:

In 1859, the *Origin of Species* at last appeared, under what circumstances all the world knows. It was nothing less than a revolution; it marks the year 1 of a new era, not for science alone, but for every department of human thought—nay, even of human action. ... the influence of his thought upon the thought of the age has far outweighed any influence ever before exerted by a single man during his own lifetime. He has revolutionised, not biology alone, but all science; not science alone, but all philosophy; not philosophy alone, but human life. Man, his origin and nature, his future hopes and realisable ideals, all seem something different to the present generation from their seeming to the generations that lie behind us in the field of time.

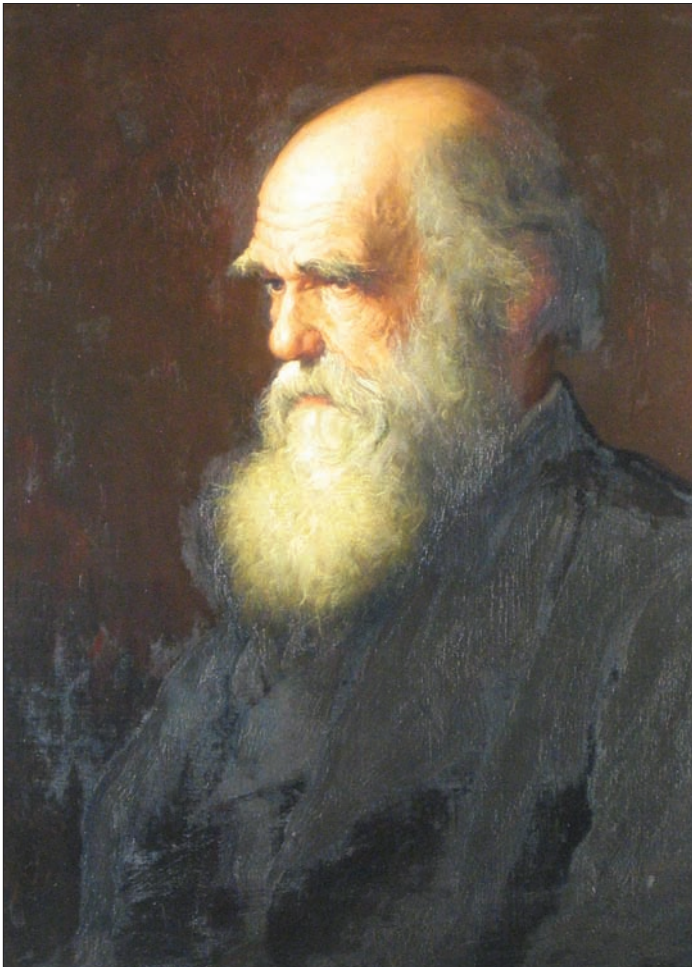
Later in 1882 revised statutes for Christ's College passed through Parliament. One of the new changes allowed the College to appoint Honorary Fellows, and it had been the intention of the Governing Body to confer this title on Darwin. In 1883 the artist William Walter Oules painted a copy of his 1875 portrait of Darwin. The copy now hangs in the College Hall, facing a portrait of William Paley. Francis Darwin wrote: "Mr. Oules's portrait is, in my opinion, the finest representation of my father that has been produced". (F. Darwin 1887,

vol. 3: 95) Although Darwin wrote to a friend that he thought “I look a very venerable, acute, melancholy old dog; whether I really look so I do not know”. (F. Darwin 1887, 3: 195)

The Darwins at Christ’s College

Darwin sent his eldest son William to Christ’s in 1858. After his first Michaelmas Term, William lived in his father’s old rooms and even decorated them with some of the prints his father had proudly displayed there in the 1830s. William found that Impey, Darwin’s gyp, was still there. Darwin wrote to Fox “William, my son, is now at Christ Coll. in the rooms above yours. My old Gyp. Impey was astounded to hear that he was my son & very simply asked “why has he been long married?” What pleasant hours, those were when I used to come & drink coffee with you daily!” (*Correspondence*, vol. 7: 196)

Darwin’s son Francis (who studied at Trinity College) became a Fellow of Christ’s in 1888, and Honorary Fellow in 1906. Darwin’s grandson, Sir Charles Darwin, was the 29th Master, 1936–1939.



Oil painting of Darwin by William Walter Ouless (1883) which hangs in the College Hall.

1909: The first Darwin centenary in Cambridge

On 22–24 June 1909 over 400 scientists and dignitaries from 167 different countries gathered at Cambridge to celebrate the centenary of Darwin's birth and the fiftieth anniversary of the publication of *On the Origin of Species*. The event was an unprecedented success- never before had such a celebration been held, not for an institution or a nation- but for an individual scientist. The celebrations began with a reception in the Fitzwilliam Museum. On 23 June presentations and speeches in the Senate House were followed by a garden party given by the Master and Fellows of Christ's College in the College grounds.

Photograph of the garden party held at Christ's College on 23 June 1909. From the Shipley album in the Old Library.



In the evening a banquet was held in the New Examination Hall of the University, the Museums Site. During the banquet Darwin's eldest son William (1839–1914) gave one of the speeches. He remarked: "I am sure my father would have said, though, perhaps, with a tone of apology in his voice, that if there was to be a [Darwin] celebration there could be no more fitting place than Cambridge. He always retained a love for Cambridge and a happy memory of his life here. It was the happiest and gayest period of his life". (Darwin and Darwin eds. 1909, p. 15) The banquet was followed with a reception by the Master and Fellows of nearby Pembroke College. On the 24th honorary degrees were conferred in the Senate House, and Sir Archibald Geikie, President of the Royal Society, gave his Reed lecture 'Darwin as geologist'. In the afternoon there was a garden party given by Darwin's children at Trinity College.

Darwin's rooms at Christ's were open to visitors during the afternoon of the 23rd and the morning and afternoon of the 24th. An historic exhibition of Darwiniana was held in the downstairs room of the Old Library at Christ's. It included portraits, busts, notebooks, manuscripts, letters and objects used on the *Beagle* voyage. Most were lent by Darwin's children. The printed exhibition catalogue listed 257 items. (Shipley and Simpson 1909) Many distinguished visitors from around the world came to see the exhibition and signed their names in a book now kept in the Old Library.

An American delegation presented the College with a large bronze bust of Darwin made by the sculptor William Couper for the New York Academy of Sciences in the same year. The first bust was given to the American Museum of Natural History who commissioned a copy from Couper to send to Cambridge. The bust now stands in the newly refurbished portico in the College grounds.

Darwin's library, then kept at the Botany School, Downing Street in Cambridge, could also be viewed by visitors in 1909. The Sedgwick Museum displayed rock specimens collected by Darwin during the voyage of the *Beagle*, and the University Library offered an exhibition of manuscripts and books illustrating the progress of science. Shipley created a magnificent album containing many of the press cuttings, invitations, menus, speeches and other memorabilia of the 1909 celebrations. This can now be viewed in the Old Library.



Photograph of the Darwin exhibition at Christ's College in 1909. From the Shipley album in the Old Library.

An anonymous writer in the College magazine describing the garden party held at Christ's, with its guests from all around the world in their brightly-coloured gowns, wrote a fitting epitaph for the 1909 celebrations which could serve almost as well for the vast amount of activity in 2009:

It was indeed interesting at the time to reflect, while looking upon this richly arrayed throng, that the past energies of one great life had occasioned these general rejoicings, symbolising as they did the honour to the personality of the great naturalist himself and the expectation of greater things to come by the continuance of his labours. (*Christ's College Magazine*, 1909, p. 8)

The restoration of Darwin's Rooms

by Jo Poole

The Darwin Committee at Christ's College was formed in 2006 to prepare for the anniversaries of the College's most famous alumnus. It was proposed to restore Darwin's rooms to their early nineteenth-century appearance and open them to the public for the first time since 1909. No drawings or descriptions of Darwin's rooms as he knew them survive. The restoration is based on research by John van Wyhe and Jo Poole into contemporary documents ranging from Darwin's letters and private papers, recollections of his Cambridge friends, illustrations and descriptions of Cambridge student life in the 1820s–1830s to the physical evidence present in the rooms as investigated by Matthew Beesley and David Bartram. Jo Poole was engaged by the College in 2008 to assist with the restoration. It was her aim to recreate the comfortable and elegant Regency atmosphere the young Darwin would have worked and played in during his time at Christ's.

Darwin's rooms are on the first floor of the south side of the first court of Christ's College (now room G4). The building dates from the early sixteenth century. In 1758 the exterior of the north side of first court was faced with Ketton stone in the contemporary classical style. By passing through the passage to the Undergraduate library it is possible to view the south side which is still the original clunch and red brick. It seems that no substantial interior structural changes have taken place over time except for the plastering of the ceiling, thus concealing the original beams (similar to those visible today just behind the door of the private chamber and in the Fellows' Parlour). The sash windows were added during the eighteenth century.

Around 1899 the ceiling plaster was removed or replaced. The central exposed beam may then have been cased with wood as it is today. A modern doorway leading to an adjoining room was added in the northwest corner, which is now covered with panelling. It is important to note that the stairway leading up to Darwin's rooms was originally twice as wide and filled the entire passage. The passage was opened in the mid-twentieth century to give access to the new Undergraduate Library.

David Bartram, a consultant for the National Trust, conducted an initial inspection of the rooms in 2006 and suggested that the oak panelling around the fireplace was built in situ. The remaining panelling was taken from another source, probably from within the College, judging from the similarity of the friezes. Numerous rough cuts and odd panels (some inserted upside down) also attest to the fact that the remaining panelling was added later. The two ornamental doors on the west side open onto brick walls. The bricks behind them appear modern, at least Victorian. The fluted wooden strips beside the doors were probably added in 1909.

The Wedgwood medallion

Situated between the windows on the north wall in the sitting room is a Wedgwood medallion donated by Darwin's son George Darwin in 1885. The portrait is in white on green jasper and was modelled around 1880. It is from a series depicting Ancients and Illustrious Moderns,

which features philosophers and distinguished figures over the centuries. Jasper was created in harmony with the aesthetic associated with the Adams interior, a crucial influence on Regency style. The new Wedgwood museum at Stoke-on-Trent has a copy of the Darwin medallion. A second jasper panel beneath Darwin's portrait reads "Charles Robert Darwin 1829–31". The date 1829 is a mistake for 1828. A small white ribbon on the underside of the frame reads "Erected by G. H. Darwin Plumian Professor 1885".

The interior

The earliest known depiction of the interior of Darwin's rooms is a photograph by J. Palmer Clarke taken in 1909 on the occasion of the Darwin centenary and published in the same year in the *Christ's College Magazine*. The furnishing of the room is from the previous century, but is an inaccurate representation of its appearance in Darwin's day. By 1909 the panelling was grained a dark brown with paint and varnish. The original fireplace (now exposed) was covered by a small coal fireplace surrounded by glazed tiles. A gasolier, a hanging gas lamp, hung in the centre of the room. The window seat to the left of the fireplace was removed by 1959 as was the panelling covering the window to the right of the fireplace.



Darwin's sitting room photographed by J. Palmer Clarke in 1909.

In 1933 the rooms, then occupied by the physicist, novelist and College Tutor C. P. Snow, were renovated:

The oak panelling which had been covered by many layers of paint, was cleaned, disclosing the woodwork in excellent condition, and at the top, on the carved frieze, underneath all the paint, bright colouring in blue, yellow and red. This colouring, in addition to being an interesting antiquarian relic, is a distinct asset to the appearance of the room. In some places where the work had failed, it has been slightly and carefully restored; the general effect must now be very much the same as it was when the colours were first put up.

Another discovery made at the same time was that of the old clunch fireplace arch behind the modern fittings. The spring of the arch on both sides had been cut away to make room for the later alterations, but the missing parts have now been carefully

restored, and the whole effect is extremely handsome. (Rackham 1939, p. 267)

A fine description of the room was published in 1959 in *An inventory of the historical monuments in the city of Cambridge*, pp. 34–5.

W. of stair 'G' is lined with panelling, said to have come from elsewhere, of c. 1600 and in five heights with frieze-panels carved with scroll enrichment and a dentil-cornice; the frieze and cornice are in part gilded and coloured. In the W. wall are two projecting doorcases, each with fluted pilaster-strips at the sides [modern additions] and a pedimented entablature of unconventional form having a deep frieze carved with a trefoiled shell, flanking foliated brackets supporting the pedimented cornice and a lion's mask in the tympanum; the doors are in six panels. The fireplace is original, with chamfered jambs and moulded four-centred head; it is flanked by modern wood pilasters supporting an overmantel, contemporary with the panelling, comprising four arched panels enriched with guilloche-ornament and divided and flanked by reeded and fluted styles; below the S.E. window are some reused panels with similar arched decoration. The door from this set to stair 'G' is of the late 17th century.

Photograph of Darwin's sitting room c. 1959 from *An inventory of the historical monuments in the city of Cambridge* captioned "Entrance Court. S. range. Room on first floor, staircase 'G'. Panelling c. 1600"

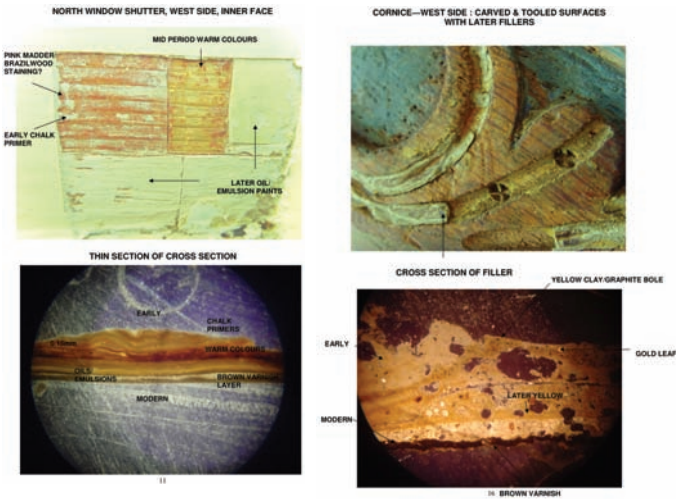


G4 is today a Fellow's room and is still used for teaching. In 2008 the mid-twentieth-century carpeting was removed, exposing nineteenth-century floorboards. The perimeter of the boards are blacked and a 13 x 15 foot section in the centre of the room is untreated wood, where a carpet would have been. This is visible in the 1909 photograph. These floorboards are laid perpendicular over an older set of wider boards which are visible just inside the main door and in the bedchamber or cupboard. The under boards in the dressing room and under the radiators (below the window seats) are pine tongue and groove and too narrow and uniform to be original.

Matthew Beesley, Senior Conservator at Fairhaven and Woods Ltd, analysed the paints in several areas of the rooms by examining samples under the microscope, identifying pigments by microchemical tests,

fluorescence microscopy and the application of petrological stains to assess the filler materials around pigments. Comparisons were then made with a collection of standard historical microslides.

Several primary samples were taken to give records of original and subsequent redecorations, stratigraphy of paint layer and grounds, and any surface varnishes. The fully illustrated initial report is deposited in Christ's College Library. Additional tests were carried out before the restoration process began. Susan Smith, Conservation and Design Officer at Cambridge City Council, kindly inspected the site with van Wyhe and after written application gave permission for the Grade 1 listed property to be painted by Fairhaven and Woods Ltd according to their analysis.



Samples 1 and 4 from Beesley's initial paint analysis report.

The results of the analysis were used to mix the correct paint colours to redecorate the room. The paint finishes chosen were casein distemper for the plastered areas, and dead flat oil for the woodwork. These finishes have been formulated for National Trust properties and are appropriate for use in a Grade 1 listed building, on surfaces such as lime plaster. This approach ensures that the overall scheme is accurate to Darwin's time at Christ's, rather than designed to please the modern eye.

In keeping with the prevalent aesthetic of the period, which did not regard expanses of bare wood as attractive unless it was a rare or tropical hardwood, the panelling was painted green earth in Darwin's time. The frieze at the top of the room was brightly coloured and gilded. The small star marks in the frieze are a technique used to ensure gilded decoration sparkled, especially under candlelight.

Jo Poole made the most unexpected discovery in the rooms. When examining the horsehair seat cushions in the bay windows, she found that both cushions were covered in four layers of different seat covers from different periods. The outer cover was a cream brocade from the last quarter of the twentieth century. Underneath was a green/ brown

upholstery fabric from the inter-war period. Below this was a sturdy maroon-coloured cloth from the late nineteenth or early twentieth century, which has some basic machine stitching in its construction. Extra padding was stitched below this layer, possibly to stop the itchy horsehairs emerging through the cloth. Finally, the oldest layer was a blue and beige print on a fairly lightweight cotton fabric. This fabric was directly over the horsehair, and has been stitched entirely by hand with linen thread. These layers are the same on both cushions.

The cloth of the innermost layer has similarities with two printed cottons from the Temple Newsam Collection, dated to the second quarter of the nineteenth century. The production of cotton fabrics in England was banned until 1774 to protect the silk and wool industries. The readily available printed cotton goods that flooded the market after the lifting of the ban had wide ranging uses throughout the early nineteenth century.

The fabric dyes used in the Regency period are not distinctive enough for a chemical analysis to reveal the age of the fabric. Stylistically the fabric is correct for the period of 1828–1831, and the colours are in keeping with those found in the paint analysis of the rooms. As there is no better evidence for the fabric of Darwin's soft furnishings, it was decided that the cloth should be replicated to enhance the atmosphere in the rooms in a way that a modern fabric could not. New fabric was printed under Jo Poole's direction.

Contemporary illustrations consistently show Cambridge undergraduate rooms of the period with curtains. No evidence regarding Darwin's curtains is known to survive. Curtains in the 1820s were lighter in weight than is usual today, their cloth often being of cotton. They were typically plain with contrasting linings made of silesia, a cotton fabric with a twill weave. The fabric used by Poole to create the new curtains for the renovation is the replicated fabric based on the seat cushions as it was of the correct weight and fibre content.

Window treatments shown in contemporary illustrations of student rooms show a single curtain hanging either side of the window, with a single swag above. Contemporary curtain making manuals also detail the correct proportions and construction techniques for this drapery.

In the sitting room, the ceiling is very low and in places only just above the upper edge of the windows. This level could have altered when the plaster was removed in 1899. In order to overcome this, it was decided that the drapery should hang from a wooden cornice as was often the case in the Regency period, providing a solution in keeping with the panelling in the room and also solving the problem of light entering the room above the curtain rail.

Room contents and layout

There are several primary resources to draw on as to the layout and contents of college rooms. One of Darwin's contemporaries at



The cushion covers, as they were found in 2008.



The inner layer with pad stitching and extra upholstery.



The cloth from the innermost layer of the cushions.

Cambridge was William Makepeace Thackeray (1811–1863), who was at Trinity College in 1829, during which time he made some etchings of University life. Being cartoons, they are probably accurate depictions of interiors, as he was not trying to prove wealth or status. They record scenes including an earnest student at his study, one more concerned with drink and gambling, another riding in the country and a group supervision.

Etchings of university life in 1829 from Thackeray [1878].



Worldly study



Imposition



First term/ second term



[study/ riding]



The satirical student guide *Gradus ad Cantabrigiam* (1824) contains a clear depiction of a student's sitting room. The room is the backdrop for a scene where a Proctor and his men are shown catching a student with a young woman supping at close quarters in front of the fire. There is a carpet with a geometric floral design and border, some pictures on the walls, various chairs, food and wine being taken from a small table covered with a cloth in front of a fire with a hob grate, a fender and tongs. The young man's cap and gown are strewn on the floor.

The following is an extract from the account of a Sizar entitled *Struggles of a poor student through Cambridge*. Although the author

Etching of a sitting room
from *Gradus ad Cantabrigiam*
(1824).



was at Queen's College some two decades before Darwin came to Cambridge, it supports the evidence of later years on the matters of furnishings and room contents.

I now felt myself at leisure to survey, in detail, the fairy land into which I had been so suddenly transported; the rich Brussels carpeting on which I trod, the brilliant chintz hangings which displayed their folds in all the taste and elegance of Grecian drapery; desks, tables, chairs, of the choicest materials and finest workmanship; the whole room actually covered with pictures, which fascinated my untutored taste: among them a variety of portraits, and in particular one of the President was very conspicuously disposed. A large and costly pier glass was suspended over the fire-place; and directly opposite, on the other side of the room, stood another, of corresponding magnitude and beauty. Several large concave and convex mirrors were scattered about. I examined all these and a variety of other objects, to me as novel as they were curious in themselves. At length I rested on the handsome mahogany book-cases. ... these were the rooms of a wealthy pensioner. ([Atkinson] 1825)

Private quarters and bedchambers are not seen or mentioned in detail in contemporary sources. Darwin's reference to being snug is similar to C.P. Snow's description in the appendix to his novel *The Masters*. When talking about the difference in sleeping quarters between the Master and Fellows he writes, "fellows' sets, even those as handsome as mine, contained as sleeping places only their monastic cells." (p. 302) This suggests that the bed was in the smaller room off the sitting room, and in the case of Darwin's rooms, the bed could possibly have been in the narrow "cupboard" that now houses shelves for the present occupant's papers. The door forming the cupboard may well be a fairly modern addition. Before the restoration the passage was open at the opposite end, beside the main outer door. This was covered with temporary panelling to facilitate opening the room to the public.

The area outside and south of Darwin's room was once known as Bath Court. It is likely that in the sleeping area, as in family homes, there

would have been a chamber pot, and a water jug and bowl for washing. Darwin used the College barber, presumably for shaving as well as haircuts.

Domestic life

Students had to furnish their own rooms, upon taking residence, the following account is given in the *Student's Guide to the University of Cambridge* (1862):

The student provides house linens, crockery, glass, some hardware. Linen- sheets, pillow cases, towels, breakfast cloths, in general from home.

Bedders may supply a secondhand set of crockery at a cheap rate, rent teapots etc.

Students must buy furniture if in college rooms. A valuation of the articles left by the outgoing tenant will be given to him, and he may take what he likes. In some colleges the fixtures, paint and paper are the property of the tenant, and are taken by the newcomer at valuation, this item is called Income in some cases the fixtures and c. are the property of the college, and there is no charge for Income.

Although this guidance was written some years after Darwin's time at Cambridge it is supported by his accounts and a letter he wrote to his sister Caroline in October, 1831.

I want most particularly & directly to know about the Tutor's bill.— Was there somewhere about 30£. allowed for my furniture? In fact there could not have been, and it is too bad of Mr. Ash, for I wrote on that subject solely to beg of him to subtract it from the bill, before sending it. (*Correspondence*, vol. 1: 177)

Carpet

The Tutors' Accounts (T.11.26) have columns for a "W.Drap." (woollen draper) and "L.Drap" (linen draper), cloth merchants who provided goods for the students. For the "Quarter to Mids. 1828" "Darwin Jun." has "£40.5.6F" under "W.Drap." This was a large sum, the rent for the rooms being £4 per quarter by way of comparison. It is possible that this records the purchase of a carpet for his rooms.

In *Struggles of a poor student*, the author mentions "the rich Brussels carpeting on which I trod". Brussels carpets were made with a looped woollen pile and were hardwearing and readily available throughout the period. They were manufactured in England, mainly in Kidderminster. The carpets were woven in strips twenty-seven inches wide that were then stitched together to order, often on site, and could then be edged by a matching border.

The Enterprise Weaving Company, based in Kidderminster, has the rights to reproduce some of the original Wilton carpet patterns from the eighteenth century onwards. They still make the carpet to a twenty-seven inch width and then stitch it to order, also producing matching borders for the finished item. After consultation with their historical expert they advised on designs that would have been available to



Design of the commissioned carpet for Darwin's rooms.

Darwin in 1828. The pattern most closely representing the large, regularly spaced “flowers” on the floor coverings seen in contemporary illustrations was selected and the carpet was ordered in a high quality, densely woven worsted wool. The colours for the carpet were chosen based on the scheme from the window seat cushions. This selection also sits well with the results from the paint analysis. The main carpet has been made slightly larger than the untreated area of the floorboards. A small carpet would probably have been at the entrance to the room, acting as a doormat. There may well have been a hearthrug in place in front of the fire, although the hearthstone is exceptionally large, so this may not have been needed.

Fireplace

Contemporary references suggest that hob grates were the fireplace furniture of choice for student rooms. A hob grate has a raised fire basket in the centre of the grate, with horizontal plates positioned above this on either side. They were made of either cast iron or steel, often with decorated front panels facing the room, and would be bricked in to the sides of the fireplace.

The coal fire would have provided heat and a focus for the student’s room, and the grate was designed so that the kettle could be boiled and bread could be toasted. Students ate breakfast in their rooms at a small table laid with a linen cloth in front of the fire so this form of grate was ideal. It is likely that toast would be made using the fire in the room. There is a boiling kettle thrown on the flames in Thackeray’s illustration “imposition”. Cheese on toast was a popular dish at the time and could be made in flat silver box on the plate of a hob grate.

A fender, probably made of pierced brass, would stop any errant coals from rolling into the room. Fire irons made of brass or steel would have been used to tend the fire. It would have been the gyp’s responsibility to keep the fire stoked. No evidence has been found for a coal box or scuttle being kept at the firesides of student rooms of the period.

Lighting

Oil lamps and candles were used for illumination. The oil lamps burnt colza oil, now known as rapeseed oil, and the candles would have been made of wax or tallow, with wax the more expensive option. Gas lamps were not in use in the colleges until later in the century.

Argand lamps were popular at the time, these had a circular wick mounted between two cylindrical metal tubes so that air channelled through the centre and around the wick. A cylindrical chimney, in early models of ground and sometimes tinted glass, surrounded the wick to steady the flame and improve the flow of air to give a better light. They were more expensive than the common oil lamps and required a supply of high quality liquid oil such as spermaceti oil. The small wooden ceiling rose in the sitting room probably does not date back to Darwin’s residence. Although oil lamps and candle holders were hung from the ceiling at the time, it was unusual in domestic interiors.

At Down House, rooms are lit by oil lamps converted to use an electric bulb. This seemed the best solution for the rooms at Christ's due to fire restrictions and for practical reasons regarding the ongoing use of the room for College life. The localisation of the light sources helps to create an authentic atmosphere. It is clear that Darwin had candles in the room, but the use of oil lamps is an assumption.

Costume

Male attire at the turn of the nineteenth century underwent several major changes, the most notable was that breeches and stockings gave way to trousers for almost all occasions. The university initially rejected this new style of dress regarding it as too informal, permitting its adoption only in 1824. The etching right shows a student in a Bachelor of Arts gown with trousers, having just received his degree.

Undergraduates wore gowns determined by their colleges with the university stipulating that they reach at least to the knee, University gowns were adopted upon graduation. The three categories of students (Fellow Commoner, Pensioner and Sizar) were easily recognisable by their different gowns. Fellow Commoners gowns were trimmed with gold lace, and Sizar's gowns would have been made of an inferior cloth to those of the Pensioners. The individual college gowns have changed very little in style over the years.

According to Harraden's *Costumes of the University of Cambridge* (1805) on Pensioner's dress: "Academic Habit is a Black Gown, made of Prince's Stuff, with Black Velvet Cape and Facings. The Cap is Black Cloth, with a Silk Tassel." 'Prince's Stuff' is a woven cloth of wool mixed with silk.

Right is an etching of a Christ's Pensioner from the mid-nineteenth century. This gown is similar to the undergraduate gowns worn in College today, but a little longer. It is probably like that worn by Darwin. The cap does not appear to have changed in size or form over the centuries, still being made of black wool felt with a silk tassel.

Other objects in the rooms

The story in Darwin's *Autobiography*, p. 44, reveals that there was a looking-glass, percussion shotgun and candle in the room. A pier glass is mentioned in several contemporary descriptions of student rooms, and was a popular choice of looking glass during the Regency period, it is a tall narrow mirror, designed to be placed between windows. This position would be advantageous in terms of lighting the subject reflected in the glass. Unfortunately, this location is not practical for the room restoration due to the Wedgwood medallion now in this place.

Darwin collected fine engravings for his rooms and copies of a few likely examples are included in the rooms (two are reproduced above).

Students had to provide household linens including sheets, pillowcases, towels and breakfast cloths. If these were not brought from home they would have been purchased in Cambridge, possibly by the gyp. The



Etching of student from *Gradus ad Cantabrigiam* (1824)... The caption translates as "safe after such a shipwreck — I am bachelor of Arts".



Etching of a Christ's Pensioner's gown c. 1830-1840 from [Whittock c. 1840.]

provision of crockery, cutlery, tea/coffee pots and glassware was also down to the student, but, in practice the bedmaker often would collect these items when the rooms were vacated and then sell them on to the next occupant. There was a popular shop called Barrett's, where Auntie's Tea Shop now stands, that supplied domestic crockery.

Darwin was partial to a pinch of snuff, so would have had a snuff box or jar either in the room or about his person.

Also resident in the rooms was a dog called Dash. William Darwin Fox's records show that a considerable number of dog whips were purchased during his time at Christ's. It is entirely possible that his cousin Charles also used these. Darwin kept a horse in Cambridge from October 1830, so there may well have been some of clothing and accessories necessary for riding in the room, but tack would probably have been stored at the stables.

Darwin would have written with a goose quill and ink in a well, and would have also used a writing box, blotter and sealing wax. In a 7 January 1829 letter to Fox Darwin mentioned using a flower pot filled with moss to nurture a Chrysalis. He may have used similarly informal equipment in his College rooms.

Several contemporary sources show tall desks with sloping tops for students to write at, but as Darwin used a microscope and worked at his beetle collection this would not have been practical. A level surface positioned in good light is more likely. At any rate Darwin must have had a table large enough for the eight members of the 'Glutton' or 'Gourmet club' to dine together in Darwin's rooms.

Shooting and collecting

There would have been a number of articles in the rooms relating to shooting and collecting insects. There were also bird skins – many on their way to cousin William Darwin Fox. In 1828 Darwin's family contributed £20 towards the purchase of a new double-barrelled shotgun. This was a top of the range percussion gun, manufactured in Birmingham or possibly London. He also used no. 7 shot, a copper powder flask, shot belt, caps, and a cleaning rod with linen patches. Percussion guns were patented in 1818, becoming very popular in the 1820s as they were less susceptible to wet and damp conditions than their predecessor, the flintlock.

Darwin used a sweeping net, as seen in the cartoon by Albert Way, to collect insects. Collecting nets receive a considerable amount of battering so they are very rare. A net belonging to Darwin is at Down House. A similar, antique collecting net has been lent by Ian Ferguson for display in Darwin's rooms in 2009.

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Admissions 1815–1852 (T.3.1)

1822–9 Tutors' Accounts (T.11.26)

1830–1835 Students Bills (T.11.27)

1827–1831 Students Bills (T.11.25)

1828–1831 Study Rent (T.9.5)

1828–1829 Residents Book (T.17.A)

1831–1836 Lecturer's Book (T.8.2)

Darwin – Fox Correspondence, Christ's College Library.



A photograph of what is purportedly the stuffed monkey that was suspended above Darwin at Senate House. The monkey, wearing a cap and gown, is sitting on copies of Darwin's *Descent of Man*, *Expression of the Emotions* and *Origin of Species*.

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 as boggy
 situation
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larger than
 last year, but
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 mouth
 with yellow dots.
 taken on - One the

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 accepted the paper. Your letter was perfect &
 inform me more in detail. I wanted to
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Drawings of beetles, probably by one of Darwin's sisters, in a letter by Darwin to W. D. Fox [30 June 1828]. Christ's College Library, Fox 2. See Correspondence, vol. 1: 58.

Darwin in Cambridge

John van Wyhe
Bye-Fellow of Christ's College

Darwin's years in Cambridge were some of the most important and formative of his early life. For the rest of his life he felt a particular affection for Cambridge. For a time he even considered a Cambridge professorship as a career and he sent three of his sons there to be educated. Unfortunately the remaining traces of what Darwin actually did and experienced in Cambridge are very rare. Consequently his day-to-day life at Christ's College has remained almost totally unknown. This booklet is based on new research, including newly discovered Christ's College manuscripts and Darwin publications, and gathers together recollections of many of those who knew him as a student. There is also an appendix on the research and discoveries behind the restoration of Darwin's College rooms at Christ's. This booklet therefore provides many never before published details and insights into Darwin's time in Cambridge and coincides with the 200th anniversary of his birth and the 150th anniversary of the publication of *The Origin of Species*.

Dr John van Wyhe is a historian of science, founder and Director of *Darwin Online*, and a Bye-Fellow of Christ's College. His other books include:

Darwin. (Andre Deutsch, 2008).

Charles Darwin's shorter publications 1829-1883.
(Cambridge University Press, 2009).

Charles Darwin's notebooks from the voyage of the Beagle.
(Cambridge University Press, 2009, with Gordon Chancellor and Kees Rookmaaker).

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