

CHARLES DARWIN'S BUBBLE: THE EVOLUTION OF DOWN HOUSE

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Abstract

Charles Darwin lived for 40 years, until his death, in the same place: Down House. During that time he reformed and expanded that property according to both his personal and professional needs. This article is aimed to elucidate the relationship between Darwin, his family, and his residence. We conclude that Darwin's changes to Down House were utilitarian in nature and restricted to the needs of the moment, from and expanding family to his demands for more working space. In many ways those changes reflected Darwin's character. Today Down House is a mixture of memorial and museum.

Introduction

Although many biographical essays narrate the life of an individual and how s/he fit into his/her times, little emphasis is given between that person and the personal spaces in which they inhabited. Yet, we can assume that a person and his/her living space are intimately related. That is particularly true when an individual lives for a long time in the same place. A person's sense of space is a combination of the way s/he perceives it as well as his or her cultural background. Thus, by studying the activities, relationships, and emotions of an individual and the environment in which s/he has lived for a long time, one can discern a great deal about that person's life. That is particularly true in the case of people with a high level of intellectuality who use their home as their center of activity. One of the few cases in which the evolution of a high achiever's home has been studied is that of Thomas Jefferson and his home Monticello ([Sheridan](#) 1993). However, a study such as this has yet to be done for a scientist. Although Jefferson did have an interest in science he was, above all, a politician who lived for long periods of time away from Monticello in places such as Paris and Washington, DC, where he did some of his most important work.

Charles Darwin (*b.* 12 February 1809, Shrewsbury, Shropshire, England; *d.* 19 April 1882, Downe, Kent, England) is the most famous naturalist of all times. His contributions to science were not only of the highest impact but also widespread in terms of subjects beyond bringing to the forefront the idea of evolution by means of natural selection. Unlike some other scientists that made huge impact on the history of biology such as his contemporary Gregor Mendel (*b.* 20 July 1822, Heinzendorf bei Odrau, Austrian Silesia, today Hyncice, Czech Republic; *d.* 6 January 1884, Brno, Czech Republic), he became very famous during his lifetime. As a result, Darwin's life has been extensively studied through hundreds of biographical materials.

Therefore, Darwin represents an excellent case study for this kind of research among scientists: he lived for almost 40 years, until his death, in the same home. This is the home in which he both produced the vast majority of his scientific work and made constant modifications so as to accommodate his personal and professional interests ([Appendix 1](#)). Further, Darwin himself and many people who lived with him during his time at Down House, left copious written material which allows us to obtain first hand information about his habits and thoughts in and about his home. Those sources are electronically available via the [Darwin Correspondence Project](#). We have cited the letters according to the numerals used in that website. For Darwin's published and unpublished works we link the citations to the reproductions contained at [The Complete Work of Charles Darwin Online](#).

This article is aimed at utilizing those primary sources to understand how Darwin modified his personal space to serve his material and emotional needs. Although no single research technique is sufficient in scope to look into these relationships, we have used an interdisciplinary approach by combining historical narratives regarding his personal character, his health, his finances, and his status as a scientist. We have concentrated on the historical facts from shortly before moving to his ultimate home, Down House in 1842, until its current use as both a memorial and a museum.

The two questions we expect to answer in this article are: (a) what can we learn about Darwin's character and work through the narrative of the place where he lived? And (b) to what extent did Darwin influence his home and his home influence him? At the end we will argue that Darwin's attempts to live physically isolated contrasted with the extensive intellectual communications he maintained with many colleagues around the world. His desire for isolation may have been the result of both medical problems and his personal aversion to public confrontations.

Down House before Darwin

The village of Downe, is located in the London Borough of Bromley, 14.25 mi. (22.93 km) southeast of Charing Cross and 8.5 mi. (13.7 km) from the nearest train station at Sydenham. During Darwin's time, the village of Downe was a parish in Kent. Downe occupies a wooded valley on a terrain made mostly of chalk, clay, and sandstone and is at 65 m above sea level. Until the middle of the nineteenth century the village name was spelled as "Down." To avoid confusion with the county of Down in Ireland its spelling was changed to "Downe" when the Ordinance Survey map and general practice agreed to that spelling at the instance of the post-office authorities. Darwin refused to follow suit regarding his house name and hence Down is the spelling still used today for the house but no longer for the village ([Howarth & Howarth](#) 1933:75-76, [Atkins](#) 1974:5, [Boulter](#) 2009:xi, [Loy & Loy](#) 2010:93-94). The census for 1841 at Downe, when Darwin moved in, was 444 people and by the time of Darwin's death it had a population of 555 ([Freeman](#) 1982).

The first known owner of Down House and its surrounding property was Thomas Manning. He may have been who built the original farmhouse. Manning later sold the property to John Know the elder in 1651 for £345. Another owner of the estate was George Butler who bought the original farmhouse in 1778 and in the 1780s built the nucleus of what we know today as Down House ([Dobson](#) 1971, [Atkins](#) 1974:12-17, [Wylson](#) 1982, [Boulter](#) 2009:23). Between Manning and when Darwin purchased the house in 1842, the property went through eleven owners ([Appendix 2](#)).

Darwin and Down House

After returning from his voyage on the H.M.S. *Beagle* on 2 October 1836, Charles Darwin lived at times at his family home at Shrewsbury, his uncle Josiah Wedgwood's home at Maer, and at Cambridge where he settled on 13 December 1836, on Fitzwilliam Street. Then, on 7 March 1837 he moved to Great Marlborough Street in London ([F. Darwin](#) 1893:32). During this period Darwin mostly worked on the results of his almost five-year voyage around the world and suffered bouts of chronic illnesses that would affect him for the rest of his life.

It was during these years that Darwin began to consider the idea of marriage, although vacillated about it. In notes written probably around July 1838 he discussed with himself the pros and cons of marrying and having children and even whether he should marry now or later in life. His vacillations were based primarily on how marriage and children would affect his time for research, his finances, and his personal relationships ([Barlow](#) 1958:233). Eventually, he decided to move forward with marriage and chose his first cousin Emma Wedgwood, (b. 2 May 1808, Maer, Staffordshire, England; d. 2 October 1896, Downe, Kent, England) to whom he proposed on 11 November 1838 ([Darwin Project-Darwin's Notes On Marriage](#)). ([For an interactive genealogy of Charles Darwin please click here.](#))

Charles and Emma knew each other quite well because their families were very close and had frequently spent time together since they were small children. According to Emma's correspondence, she had no idea that Charles had any romantic interest in her but was pleasantly surprised at his proposal and accepted the proposition to become his wife ([Heiligman](#) 2009:56). The way Charles put it to Emma was sincere and direct: "Excuse this much egotism, - I give it to you, because I think you will humanize me, & soon teach me there is greater happiness, than building theories & accumulating facts in silence & solitude" ([Letter 489](#) 20 January 1839). Charles seemed very happy about Emma accepting his proposal because the next day he wrote ([Letter 432](#) 12 Nov 1838) to his closest colleague at that time Charles Lyell, (b. 14 November 1797, Kinnordy, Forfarshire, Scotland; d. 22 February 1875, London, England) about the news. All the correspondence was of joy ([Litchfield](#) 1915).

Charles and Emma married on 29 January 1839. That night Charles took his bride to the home in Gower Street where he had been living since New Year's Day. The house consisted of a basement, ground floor, and three stories. The house was taken on a lease and Darwin bought all the furniture. He decided to set up his studio on the upper floor of the house in order to be more isolated. The new life for the Darwins included a cook, a

housemaid, and a manservant.

During this period the couple felt that they should live in London because Charles was the Secretary of the Geological Society and that was the only public activity in which he was engaged ([Loy & Loy 2010:73-74](#)). For three years they continued to live in London at No. 12 Upper Gower Street ([Dobson 1971](#)). This house later was destroyed during the German bombings of World War II.

Two sets of reasons propelled the Darwins to move out of London. First, Charles found that the social and scientific duties in London distracted him from his work. Emma also preferred the country, an environment in which she grew up, although she enjoyed the concerts and shopping in London to a certain degree. Second, there had been some civil conflicts in London that led to the General Strike of August 1842, the biggest civil unrest in Britain in the nineteenth century ([Jenkins 1980](#)). Overall, the city did not suit the pair which Darwin expressed in his autobiography where he said that he considered London to be “vile,” “dirty,” “smoky” ([Autobiography: 233](#)), a picture one can get by reading Charles Dickens's novels.

Thus, he and Emma started to talk about moving out of London in 1840. Charles's father, however, did not want to buy his son a house outside London until they had spent some time in the country to determine if they really enjoyed rural life. House hunting started first in London. They then spent time looking in Surrey. Tired, Charles and Emma settled for Down in the summer of 1842 ([Atkins 1974:20](#)). The price paid for the estate was £2,200, which was relatively cheap for what they were sought ([Loy & Loy 2010:97](#)). The property had 18 acres of land ([Letter 640](#), 31 August 1842, [Atkins 1974](#), [Fry 1987](#)) ([Letter 637](#) 24 July 1842, [Matthews 2001](#)) and Darwin liked the fact that it was secluded ([Atkins 1974:19-20](#)). The house had three stories, numerous bedrooms, a drawing room, and a dining room; all the space needed for the growing family. Hot water for bathing had to be heated in the kitchen and carried by the maids. Unknown to Darwin at the time, this residence would become the nucleus of his existence for the rest of his life.

Purchasing and First Impressions

Upon his father's recommendation, Charles initially tried to rent the property but because the house was mortgaged, the selling price was really a bargain ([Litchfield 1915, 2: 75](#)) and the house would need few alterations. Therefore, he decided to buy it although Emma still had some misgivings and Charles himself considered it, “oldish & ugly” ([Letter 634](#) late July–Aug 1842, [Boulter 2009:xiv](#)). Part of the decision behind settling for this residence and no other might have been because, after extensive house hunting, Emma was eight months pregnant and the couple felt the urgency to make a decision as soon as possible.

Another reason for buying that house was that Darwin, who had never worked for a living, hated the idea of having to work for a salary, and depended on his father's largess. In fact, every time he needed to incur repair expenses at his home he showed a great deal of concern about costs. All that despite the fact that Charles and Emma counted with some income: Emma's father had pledged £5,000 in investment capital and £400 of annuity; and Charles' investment capital from his father was £10,000 generating £600 annuity. Both were the equivalent to 1,250,000 in current U.S. dollars ([Loy & Loy 2010:76](#)). They bought the house in August. Emma, their son William (3 years old), and their daughter Anne (1 year old), moved in on 14 September and Charles followed on the 17th ([Correspondence vol. 2, Appendix II Darwin 1952:96](#), 114; [Loy & Loy 2010:98](#))

Yet, moving to Down House did not take place under the best conditions. First, Emma was less enthusiastic than Charles, “We are going to Down. Oh, you can't imagine how dull these English country-houses are! There is nothing at all to do there” ([Raverat 1952:139](#)). Additionally, Emma's parents were both ill; and she herself was almost nine months pregnant and suffering from headaches. At the time, they had two small children and their third child, Mary Eleanor, who was born on September 23 died shortly after (October 16), apparently being sick all of her short life. Charles, who hated funerals, had to witness the one of his daughter.

Despite all this Charles still believed that things would improve. In a letter to his sister Catherine just before moving in, he wrote: “I feel sure I shall become deeply attached to Down, with a few improvements – It will be very difficult not to be extravagant there” ([Letter 633](#) 16 September 1842). Charles found Down to be the typical rural town but with “respectable” residents. He liked the scenery and the many walking paths. Although he thought that the house was too far from the train station, it was still well connected to the city with a carrier going weekly to London ([Letter 637](#) 24 July 1842).

He seemed to be particularly keen on making Down House as pleasant for Emma as it was for her at Maer by enlarging the drawing room, adding a kitchen to accommodate the growing number of servants, and moving the

lane next to the house farther away for privacy and planting flowers similar to the ones at Maer. Charles loved his studio, and purchased some furniture for it, including a high-backed chair on an iron frame with wheels so he could move around the room without standing up. He also screened off a corner of the room to accommodate a chamber pot, bowls, water, and towels given his frequent illnesses. In addition Charles bought a strip of land on the western boundary of the property from his neighbor the astronomer and mathematician John Lubbock (*b.* Westminster, London, 26 March 1803; *d.* Down, 21 June 1865). He converted it into a sandwalk and planted hazel, alder, birch, and dogwood trees ([Heiligman](#) 2009). The two children were happy with the move ([Letter 654](#) 9 December 1842).

Others' first impressions of the house were not particularly positive. For example, Charles' brother Erasmus called the house, "Down-in-the-Mouth House" (meaning it was out of spirits) ([Letter 648](#) 4 October 1842, [Matthews](#) 2001). In 1892 his son Francis wrote, "In 1842 it was dull and unattractive enough: a square brick building of three stories, covered with shabby whitewash and hanging tiles. . . . The house was made to look neater but being covered with stucco, but the chief improvement affected was the building of a large bow extending up though three story's" ([Darwin F.](#), 1893:138). Francis would later add, "it would have been difficult to find a more retired place so near of London. In 1842 a coach drive of some twenty miles was the only means of access to Down" ([Darwin F.](#), 1917, Chapter 10, [Anonymous](#) 1927b).

When the Darwins moved in, they did not bring with them many possessions. Except for Charles' studio, the furnishing at Down was rather bare unlike the clutter of many Victorian homes ([Freeman](#) 1982). Charles' study armchair with its writing board was purchased in London and so was Emma's piano, a wedding present from her father. They also had ponies, horses, dogs, cats, pigeons and some poultry on the property.

Modifications while Charles Darwin lived at Down

What follows is the list of major modifications made to Down House and its grounds during Darwin's time. For a dynamic map of Down House through the times, see [Figure 1](#). For a general view of the grounds at Down, see [Figure 2](#) in Appendix 3.

1843: First, the Darwins purchase a bow window extending the full height of the three stories, which had been added to the drawing room and the bedroom above. Darwin found the original windows too small, so the new full height windows on the ground floor had large clear panes without the conventional glazing bars. By March they added a new kitchen garden and sundry ([Letter 665](#), 25 March 1843). Charles ordered to lower the lane between eighteen inches and two feet. They also built a six-foot-high rockwall for more privacy ([Boulter](#) 2009:xiv). When planted with evergreen and shrubs this gave a sense of enclosure to the residence as well as providing protection from the cold prevailing winds ([Wylson](#) 1982). At this point, he still depended upon his father's money to live ([Letter 673](#), 27 April 1843) and his father covered the costs with £399 (= US \$25,000) ([Loy & Loy](#) 2010:100). Then, in December he wrote about adding half an acre of land to the property ([Letter 674](#), 8 December 1843). He received some furniture from Susan Elizabeth Darwin for which he was very grateful and some modifications were also made with doors and leveling of the broad walk ([Letter 719](#), 2 December 1843).

1844: Improvements to the kitchen area and a schoolroom with two small bedrooms built on the second floor were planned.

1845: A schoolroom and two small rooms were added upstairs and the butler's pantry was expanded. A new backdoor was also added to minimize the traffic through the kitchen for the benefit of the servants. They acquired a stove ([Letter 827](#) 13 February 1845). Major works in the gardens were also completed ([Letter 913](#) 3 September 1845). Charles expressed feelings that the house was comfortable and the gardens were improving. Overall, he liked the "rurality" of the place.

1846: Charles rented (and later purchased) a small strip of land along the southwest edge that he converted into his quarter mile long "thinking pad," a sandwalk ([Loy & Loy](#) 2010) (p. 110). He usually walked it accompanied by his dog Polly ([Letter 942](#), 16 January 1846). Some other minor alterations were made this year ([Letter 982](#) 24 June 1846). He also registered himself as "farmer" in Bagshaw's Directory of 1847 ([Howarth & Howarth](#) 1933:81).

1849: A hut with a cold shower was built in the backyard. He took showers every morning with 640 gallons of icy water to see if that would have any positive effects on his health ([Loy & Loy 2010:119](#)).

1851: Some alterations in top rooms and stairs were made ([Letter 1456](#), 3 October 1851).

1853: Installed a watering system for the gardens and a douche to enable him to continue the cold-water treatment at home ([Letter 1677](#), 29 April 1853).

1856: Built a pigeon house ([Letter 1804](#), 26 February 1856).

1857: By now Charles and Emma had eight children and up to ten servants, and thus required more space. They built a two-story expansion to the northwest. Originally planned as a dining room, the first-floor space became the main drawing room ([Loy & Loy 2010:158](#)) ([Letter 1619](#), before 11 September 1857).

1858: Wallpaper was installed for the new rooms ([Letter 2268](#), 3 May 1858). Also, new water-colors for the drawing room are added ([Letter 2215](#), 11 February 1858).

1859: A new drawing room and wallpaper were added to the southwest of the house ([Letter 2476](#), 7 July 1859). A billiard table was placed in the old dining room. "We have set up a billiard table and I find it does me a deal of good and drives the horrid species out of my head." Charles had picked up on this game while at health center ([Letter 2436](#), March 1859). Emma spent a lot of time in the garden.

1862: Charles decided to build a greenhouse ([Letter 3875](#), 24 December 1862).

1863: The greenhouse was built (Wylson 1982; [Letter 3986](#), 15 February 1863).

1864: He had shrubs cut down at the back of the house to make the study lighter ([Letter 4498f](#), 17 May 1864).

1874: Charles acquired a piece of land from John Lubbock and the sandwalk (his "thinking path") is finished ([Letter 9319](#), 23 February 1874, [Atkins 1974:28](#)).

1876: Charles asks the architect William Cecil Marshall (1849-?) to design additional rooms for Down House ([Letter 10609](#), 19 September 1876). Marshall and "Mr. Laslett" (a builder) met to discuss the project ([Letter 10624](#), 29 September 1876). Darwin thought that the estimate from Mr. Laslett was too high and hired another builder, a "Mr. Deards" to do the job because he would be "quicker and better" ([Letter 10684](#), 22 November 1876).

1877: Final additions to the house are made. A billiard room was built with a bedroom and a small drawing room above. The ground floor room became a new study ([Wylson 1982](#)). In addition, the front door had to be moved to the end of the newly created hall, where it now stands facing northeast and no doubt the portico was erected at the same time ([Atkins 1974:29](#)). This followed the Victorian approach that each room should serve a particular function ([Wylson 1982](#)).

1881: Charles bought an additional strip of land behind the orchard to build a tennis court. The concrete court was an hourglass shape, wider at the base than at the net ([Wylson 1982](#)).

1882: Charles died

Life at Down House

Besides his scientific work, a number of themes recurrently appear in Darwin's writings which are necessary to understand his life at Down House: health and finances.

After returning from his voyage in *The Beagle*, Darwin was chronically ill. The symptoms – most of them recurring – were numerous and included: vomiting, malaise, vertigo, dizziness, muscle spasms, tremors, cramps, headaches, tachycardia, fainting, dyspnea, colic/bloating and nocturnal intestinal gas, alterations of vision, severe tiredness/nervous exhaustion, skin blisters over the scalp and eczema, crying anxiety, sensation of impending death, loss of consciousness, insomnia, and depression. There has been much discussion about the causes of these symptoms (e.g., [Colp 1977](#)). Among those are: psychosomatic, panic disorder, Chagas disease, Ménière’ disease, lactose intolerance, lupus erythematosus, arsenic poisoning, allergies, and hypochondria. What it was, we will probably never know, but it was most likely a combination of several of the above including psychosomatic symptoms. There is no question that Charles Darwin was almost never healthy and these symptoms always cast a shadow on his daily life. Given that some of the above mentioned symptoms can be embarrassing when around others, that may have contributed to his inclination not to socialize very much.

Charles’s son Francis [summarized](#) a typical day in Darwin’s middle and later years as follows (Freeman 1978:88-89):

7 a.m.	Rose and took a short walk.
7:45 a.m.	Breakfast alone
8–9:30 a.m.	Worked in his study; he considered this his best working time.
9:30–10:30 a.m.	Went to drawing room and read his letters, followed by reading aloud of family letters.
10:30 a.m.– 12 or 12:15 p.m.	Returned to study, which period he considered the end of his working day.
12 noon	Walk, starting with visit to greenhouse, then round the sandwalk, the number of times depending on his health, usually alone or with a dog.
12:45 p.m.	Lunch with whole family, which was his main meal of the day. After lunch read <i>The Times</i> and answered his letters.
3 p.m.	Rested in his bedroom on the sofa and smoked a cigarette, listened to a novel or other light literature read by Emma.
4 p.m.	Walked, usually round sandwalk, sometimes farther afield and sometimes in company.
4:30–5:30 p.m.	Worked in study, clearing up matters of the day.
6 p.m.	Rested again in bedroom with Emma reading aloud.
7.30 p.m.	Light high tea while the family dined. In late years never stayed in the dining room with the men, but retired to the drawing room with the ladies. If no guests were present, he played two games of backgammon with Emma, usually followed by reading to himself, then Emma played the piano, followed by reading aloud.
10 p.m.	Left the drawing room and usually in bed by 10:30, but slept badly.

Even when guests were present, half an hour of conversation at a time was all that he could stand, because it exhausted him ([Freeman 1978:88](#), [Darwin Online](#)). Darwin described his daily routine as follows: “My life goes on like clock-work, and I am fixed on the spot where I shall end it” (F. Darwin 1916:ix).

Does it mean that he was a recluse? An analysis of Darwin’s documents shows the number of days he left home ([Figure 3](#), Appendix 3). For the years we have reliable data, Darwin seems to have spent on average less than a month away from Down House with most of those days being spent either at a health spa or visiting relatives. Despite this first indication that he did not carry much of a social life outside his family circle, we know that Darwin took part in village affairs by being for thirty years the Treasurer of the Friendly Club and thereafter Justice of the Peace in 1857. He also had guests for Sunday lunches or long weekends. The only time that he seemed to spend away from Down for professional related business was while he was a member of the Council of the Royal Society (1855-56) attending sixteen meetings ([Howarth & Howarth 1933:83](#), [Freeman 1982](#)). Therefore, we cannot label him as a recluse but rather as a person who preferred to spend his time with his work, and also avoiding too much of unnecessary social contact given the symptoms of his chronic health problems such as vomiting or bloating that could be embarrassing under certain social circumstances.

Regarding finances, Darwin carefully kept records of his income and expenditures. Although he always counted on the financial support of his father and his father-in-law, we must remember that he never worked for a living so he could not count on any steady income in the form of a salary. That is why financial considerations were always paramount when it came to both buying Down House and the modifications made to the property. Through his years at Down, the only form of steady income produced by Charles himself came in the form of capital gains over his investments and the selling of his books ([Figure 4](#), Appendix 3).

These considerations did not prevent him from making the appropriate modifications to his home that would make the life of his family and his servants more comfortable. Yet he tended to be more circumspect when it came to decorations. By the time he died his estate was worth around a quarter of a million pounds, or about US \$211,000,000 in contemporary times ([Keith](#) 1955).

Down House after Darwin's Death

Shortly after Charles's death, Emma started to spend the winters at Cambridge and the summers at Down House. Their son Francis lived there afterwards for many years ([Atkins](#) 1974:22) and their grandchildren loved to spend weekends and holidays there ([Raverat](#) 1952: 139-161).

As Darwin's children married and pursued their own professional interests, and after the passing of Emma in 1896, the family decided to lease Down House to Olive M. Willis. He founded the Downe House School for Girls which operated there between 1907 and 1922 and later was used to accommodate another school. By that time the legal owner of the house was Sir Charles Galton Darwin, Charles and Emma's grandson.

Then Sir Arthur Shipley (*b.* Walton-on-Thames, Surrey, England, 10 March 1861; *d.* 22 September 1927) the Master of Darwin's old college, Christ's Cambridge, wrote Sir Arthur Keith (*b.* 5 February 1866, Persley, Aberdeenshire, Scotland; *d.* 7 January 1955, Downe, Kent, England), then conservator of the Hunterian Museum at the Royal College of Surgeons saying that the house, "ought to be a national possession".

On 31 August 1927 Sir Arthur Keith, by then president of the British Association for the Advancement of Science (BAAS), gave a Presidential address during the association's meeting in Leeds about Darwin and mentioned that Down House was for sale and that such a building should be preserved. When *The Times* of London reported that remark the following morning, Sir George Buckston Browne (*b.* 13 April 1850, Manchester, England; *d.* 19 January 1945, London, England), a pioneer urologist and surgeon, dispatched a telegram to O.J.R. Howarth, Secretary of the Association, in which he offered to purchase and endow Down House for the BAAS to own and operate it. The house was valued at £4,250, but it was in need of serious repairs. Browne responded by providing those funds plus £20,000 for an endowment and gave it to the care of the BAAS. The General Committee of the BAAS approved on 6 September 1927 to accept the offer. Browne wanted it to be restored as it had looked in 1882 and, "that some appropriate medical man of slender means should be appointed resident custodian" ([Anonymous 1927a](#)). The house and surrounding property was opened to the public for the first time on 7 June 1929 ([Howarth & Howarth](#) 1933:75, [Dobson & Wakeley](#) 1957:108).

Browne also took a personal interest in seeing the repairs done and contacted the Darwin family in order to restore the "old study," seeking to find the original furniture or others as similar as possible. That included Emma's original Broadwood piano and the studio, which had mostly the things Charles used. Mrs. Henrietta Litchfield, Charles' third daughter, bequeathed for Down her father's study chair and letter-weighing machine. Browne commissioned John Collier to paint replicas of Darwin portraits as well as Thomas Huxley's ([Anonymous 1928](#)). In addition, Browne made arrangements for the second floor to be utilized as the quarters for the Secretary of the Council to live in and take care of Down House. Osbert John Radcliffe Howarth (1877-1954) and his wife Eleanor were the first ones to live there in that capacity (Keith in [Howarth & Howarth](#) 1933).

In 1953 the house was purchased by the Royal College of Surgeons of England ([Atkins](#) 1974) and they decided to take care of some needed repairs. Those restorations were finished by 1958 ([Dobson](#) 1971). With funds from the Royal College and donations from various members of the Darwin family (£1,662 16s. 6d.), Glaxo Charity Trust (£500), and N.M. Rothschild & Sons (£250), among others, most repairs were completed by 1958 ([Anonymous 1958](#)).

In the late 1980s the Royal College of Surgeons began negotiations with the Natural History Museum over three years for a 99-year lease option; however, this option did not work out and the College sought other alternatives. By that time the House received about 5,000 visitors per year ([Wallace](#) 2001). In 1993 Down House was purchased by the British Museum of Natural History (BMNH). Then in the spring of 1996, the museum made

arrangements which allowed Down House to be sold to the English Heritage for £705,000 (\$1,060,000) paid for by The Heritage Lottery Fund from the Wellcome Trust. Restorations began immediately to make the property look as close as possible to what it had at the time of Emma's death in 1896. Today the property covers 23 acres of land, five of which were added from the original eighteen when Darwin purchased it ([Howarth & Howarth 1933:76](#)). The restoration we see today was done to make the house look as it did shortly before Charles died, that is, around 1876-1877. The billiard table is a reproduction of the one used by Darwin since it was made by the same company that made the original one ([Crow 1998](#)). The greenhouse has many of the plants Darwin used for his experiments and the kitchen garden was reestablished ([Wallace 2001](#)).

Down House opened to the public under the new administration on 10 April 1998. An additional £2.2 million was made available including a £1.783 million grant from the Heritage Lottery Fund. An upstairs room was restored as a museum about Darwin's voyage, another about evolution, and a third about genetics. A fourth room deals about the controversies about evolution ([Anonymous 1998](#)). Thus, only the first floor and the surrounding of the house still look like the way it was by the time the Darwins lived there.

Discussion

Darwin made Down House, originally a farmhouse, into a country house (*sensu* [Downing 1969](#)). These are aspects not unusual among people who develop intense activities in their homes ([Shamir 2006](#)). In fact the architectural characteristics of Down House are consistent with those described by A. J. Downing's *The Architecture of Country Houses* where he stated that it reflects "the wants and the means, the domestic life and the enjoyments, the intelligence and the tastes of (in the case of Darwin) of the gentleman" (pp. 22-23).

The main motivations for not only choosing but also transforming Down House seems to be a combination of Charles Darwin's search for privacy, solitude, and intimacy while making sure that such an environment was an enjoyable one for his family and servants. He designed his studios to serve not only as a place for work but also to renew himself, when needed, to deal with his health condition. The open spaces, particularly his "thinking path," provided him with further breathing space to meditate about his work. Other infrastructures on the property such as the greenhouse and the pigeon house allowed him to experiment on some of his ideas, while the external shower for his water treatment was used in his constant search for a cure to his chronic health issues.

The whole setting of being physically isolated from most people of the outside world provided him with the comfort of not having to deal in public with the symptoms of his health conditions such as constant vomiting or bloating, which must have been embarrassing outside the privacy of his own home.

Thus, despite the apparent reclusiveness of his life, which may have been true when it came to personal contacts, when it came to his contacts in the academic world this was certainly not the case. [Browne \(2003\)](#) has argued that Darwin was not an accidental celebrity but an intentional one crafted by some of his colleagues and, especially, by himself. Among the arguments that she cited supporting this statement, Browne wrote, "He had photographs mass-produced (of himself) to send out to correspondents and supplied biographical entries for compendia of 'men of the times.' He signed autographs and answered fan mail. He gave away cheap copies of his books as souvenirs, collected poems and popular songs composed about him, and received celebratory on his birthday" (p. 178). Regardless, his extensive correspondence activity in addition to his routine work and illness does describe a person with a very intense interest of communicating with others. He may have been a recluse physically speaking, but as a persona he was very public, and there is no question that he was an international celebrity after the publication of his *Origin*.

Regarding his finances, they improved considerably as time went by. When the couple married they had about £1,300 a year income as a result of Charles' allowance from his father and Emma's dowry. As [Freeman \(1982\)](#) put it, "Such an income was suitable for a comfortable but not extravagant life style." By the time Darwin died his estate was worth probably around a quarter of a million pounds as a result of inheritance from his father, investments, and some rather small income for the sale of his books (he sent numerous copies of his books to his colleagues, reducing, thus, the market of people who would purchase them).

There were significant differences between the evolution of Jefferson's home and Down House. Jefferson kept building up and tearing down Monticello as part of his continued experimentation in the field of architecture, which made him incur tremendous debt that followed him for his entire life and his descendants for many years after his death. Darwin's changes in his home were always utilitarian in nature, avoiding any extravagant expenses, which allowed him to die rather wealthy. There is no doubt that Charles Darwin had a very intimate

relationship with Down House, which he cultivated for almost forty years. His children continued visiting Down until many years after Charles's and Emma's deaths, which substantiates how fond they felt about the residence despite that –unlike their father- they felt no need for physical isolation. Given the tremendous productivity of Darwin's work while at Down ([Appendix 1](#)), there is no question that he succeeded in creating the perfect environment for his work and his family life.

It is interesting to note that although Darwin developed his home in a way that served as a personal bubble –in today's parlance- Down House is now a mix of memorial (the main floor and the gardens) and museum (the second floor).

REFERENCES

- Anonymous. 1927a. Charles Darwin's house. *British Medical Journal* Jul-Dec:464.
- Anonymous. 1927b. Darwin's House. *British Medical Journal* Jul-Dec: 758.
- Anonymous. 1928. Down House as a Darwin memorial. *Nature* **122**:350.
- Anonymous. 1958. Donations. *Annals of the Royal College of Surgeons of England* **22**(5):356.
- Anonymous. 1998. Darwin's house re-opens. *Nature Genetics* **18**:309.
- Atkins, H. 1974. *Down, the Home of the Darwins. The Story of a House and the People who lived there*. London: The Royal College of Surgeons of England.
- Barlow, N (Ed.). 1958. *The autobiography of Charles Darwin 1809-1882, with original omissions restored Edited with Appendix and Notes by his grand-daughter Nora Barlow*. London: Collins. (at: [Darwin Online](#))
- Berry, R.J. 1982. Happy is the man that findeth wisdom. *Biological Journal of the Linnean Society*. **17**:1-8.
- Boulter, M. 2009. *Darwin's Garden. Down House and The Origin of Species*. Berkeley: Counterpoint.
- Browne, J. 2003. Charles Darwin as a celebrity. *Science in Context* **16**:175-194.
- Colp, R. 1977. *To be an invalid. The illness of Charles Darwin*. Chicago: The University of Chicago Press.
- Crow, C. 1998. Darwin at Home. *History Today* **48**:31-32.
- Darwin, F. (Ed.). 1893. *Charles Darwin. His life told in an autobiographical chapter and in a selected series of his published letters*. New York: D. Appleton.
- Darwin, F. 1917. *Rustic sounds and other studies in literature and natural history*. London: John Murray.
- Darwin, F. 1919. Memoir of Sir George Darwin., In: *Scientific Papers by Sir George Howard Darwin*, Cambridge.
- Dobson, J. 1971. *Charles Darwin and Down House*. Edinburgh and London: Churchill Livingstone.
- Dobson, J. & C. Wakeley. 1957. *Sir George Buckston Browne*. Edinburgh: E. & S. Livingstone Ltd.
- Downing, A.J. 1969. *The Architecture of Country Houses including designs for Cottages, and Farm-Houses, and Villas*. New York: Dover Publications, Inc.
- Freeman, R.B. 1978. *Charles Darwin. A companion*. Hamden, CT: Archon Books.
- Freeman, R.B. 1982. The Darwin family. *Biological Journal of the Linnean Society*. **17**:9-21.
- Fry, P. 1987. The Darwin memorial at Down House, Downe, Kent. *Journal of Biological Education* **21**:7-10.
- Heiligman, D. 2009. *Charles and Emma. The Darwin's leap of faith*. New York: Henry Holt and Company.
- Howarth, O.J.R. & E.K. Howarth. 1933. *A history of Darwin's parish*. Downe, Kent. Southampton: Russel & Co.
- Jenkins, M. 1980. *The general strike of 1842*. London: Lawrence and Wishart.
- Keith, A. 1955. *Darwin revalued*. London: Watts & Co.
- Litchfield, H. 1915 (Ed.). *Emma Darwin. A century of family letters*. New York: D. Appleton and Company.
- Loy, J.D. & K.M. Loy. 2010. *Emma Darwin. A Victorian Life*. Gainesville: University Press of Florida.
- Matthews, A. 2001. A Natural Selection. *Preservation* **53**:87-91.
- Raverat, G. 1952. *Period Piece. A Cambridge Childhood*. London: Faber and Faber.
- Shamir, M. 2006. *Inexpressible privacy. The interior life of antebellum American literature*. Philadelphia: University of Pennsylvania Press.
- Sheridan, E.R. 1993. Jefferson & Monticello. *American History Illustrated* **28**:58-69.
- Wallace, R.W. 2001. Darwin's Down House. *Endeavour* **25**:131-132.
- Wylson, P. 1982. Darwin and the Down House. *Biologist* **29**:105-107.

Appendix 1

CHRONOLOGY OF CHARLES DARWIN, DOWN HOUSE, AND HIS WORK

Year	Personal life	Professional life*	Down House
1809	12 February: Born in The Mount, Shrewbury.		
1817	Death of his mother		
1825	October: Entered Edinburgh University to study medicine		
1828	Entered Christ College, Cambridge University		
1829		<i>Illustrations of British entomology</i> (1829-1832)	
1831	Obtained B.A. degree	27 December: Voyage of the H.M.S. Beagle began	
1836	Settled in London	Beagle returned	
1837		First Notebook on Origin of Species	First mention of the name "Down House"***
1838	May: Health starts to break down 11 November: Engages to be married to his cousin, Emma Wedgwood 31 December: moves into 12 Upper Gower St.	<i>The zoology of the voyage of H.M.S. Beagle</i> (1838-1843)	
1839	29 January: Married Emma Wedgwood Son William Erasmus is born	<i>Journal of researches into the geology and natural history of the various countries visited by H.M.S. Beagle</i> <i>Questions About the Breeding of Animals</i>	
1841	Daughter Anne Elizabeth is born		
1842	Daughter Mary Eleanor is born; dies three weeks later	First abstract of his theory (35pp.) <i>The structure and distribution of coral reefs (Geology of The Voyage of The Beagle)</i>	Settled at Down House
1843	Daughter Henrietta Emma ("Etty") is born		Added a Bow Window to the Dining Room
1844		<i>Geological observations on the volcanic islands visited during the voyage of H.M.S. Beagle, together with some brief notices of the geology of Australia and the Cape of Good Hope. (Geology of The Voyage of The Beagle)</i> Second abstract (230 pp.)	
1845	Son George Howard is born	<i>Additional testimonials submitted to the Council of University College, London.</i>	
1846		<i>Geological observations on South America (Geology of The Voyage of The Beagle)</i>	Plating of the sandwalk

1847	Daughter Elizabeth ("Bessy") is born		
1848	Son Francis is born 13 November: Father Robert dies		
1849	Serious health issues. Water-cure at Malvern	<i>A manual of scientific enquiry; prepared for the use of Her Majesty's Navy: and adapted for travellers in general.</i>	
1850	Son Leonard is born		
1851	Daughter Anne Elizabeth dies Son Horace is born	<i>A monograph on the sub-class Cirripedia, with figures of all the species. The Lepadidæ; or, pedunculated cirripedes (1851), The Balanidae (1854)</i>	
1856	Son Charles Waring is born		
1858	Son Charles Waring dies	Received letter from Wallace: The Darwin- Wallace 1858 Evolution Paper Fossil Cirripedia of Great Britain (1851, 1854, 1858) 1 July: Joint paper read at the Linnean Society	Added a new Drawing Room
1859	2 October-9 December water-cure Ilkley, Yorkshire	24 November: <i>On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life.</i> 1 st ed.	
1860		British Association meeting at Oxford 7 January: 2 nd ed. of <i>The Origin of Species</i>	
1861		3 rd ed. of <i>The Origin of Species</i>	
1862		Query to Army Surgeons <i>On the various contrivances by which British and foreign orchids are fertilised by insects. Memoir of the Rev. John Stevens Henslow.</i>	Heated greenhouse added.
1863	Severe illness		
1864	Illness continues until April		
1865		<i>On the movements and habits of climbing plants</i> 1 st ed	
1866		4 th ed. of <i>The Origin of Species</i>	
1867		Queries about Expression	
1868		<i>Variation of Animals and Plants under Domestication</i>	
1869		5 th ed. of <i>The Origin of Species</i>	
1871		<i>The descent of man, and selection in relation to sex</i> 1 st ed.	
1872		<i>The expression of the emotions in man and animals.</i>	Added a Verandah to the Drawing room

		6 th ed. of <i>The Origin of Species</i>	
1873		<i>Testimonials in favour of W. Boyd Dawkins.</i>	
1874		<i>The Structure and distribution of coral reefs.</i> 2 nd ed. <i>The descent of man, and selection in relation to sex</i> 2 nd ed.	
1875		<i>On the movements and habits of climbing plants</i> 2 nd ed. <i>Insectivorous Plants</i>	
1876		<i>The effects of cross and self fertilisation in the vegetable kingdom</i> 1 st ed. <i>Report of the Royal Commission on the practice of subjecting live animals to experiments for scientific purposes</i> <i>Geological observations on the volcanic islands and parts of South America visited during the voyage of H.M.S. 'Beagle'</i> 2 nd ed.	
1877		<i>The different forms of flowers on plants of the same species.</i> <i>The various contrivances by which orchids are fertilised by insects.</i> 2 nd ed. Biographical Sketch of an Infant	Added a Hall, New Study, and a Front Door with a Porch
1878		<i>The effects of cross and self fertilisation in the vegetable kingdom.</i> 2 nd ed.	
1879		<i>Erasmus Darwin</i>	
1880		<i>The power of movement in plants</i>	
1881		<i>The formation of vegetable moulds though the action of worms</i>	New study, front door moved to its current position Tennis court built.
1882	19 April: Died at Down, Buried at Westminster Abbey	<i>The descent of man, and selection in relation to sex</i> 2 nd ed. <i>Animal intelligence.</i>	

*For a list of works by Darwin that were published posthumously, see [Berry](#) (1982).

**[Howarth & Howarth](#) 1933:76.

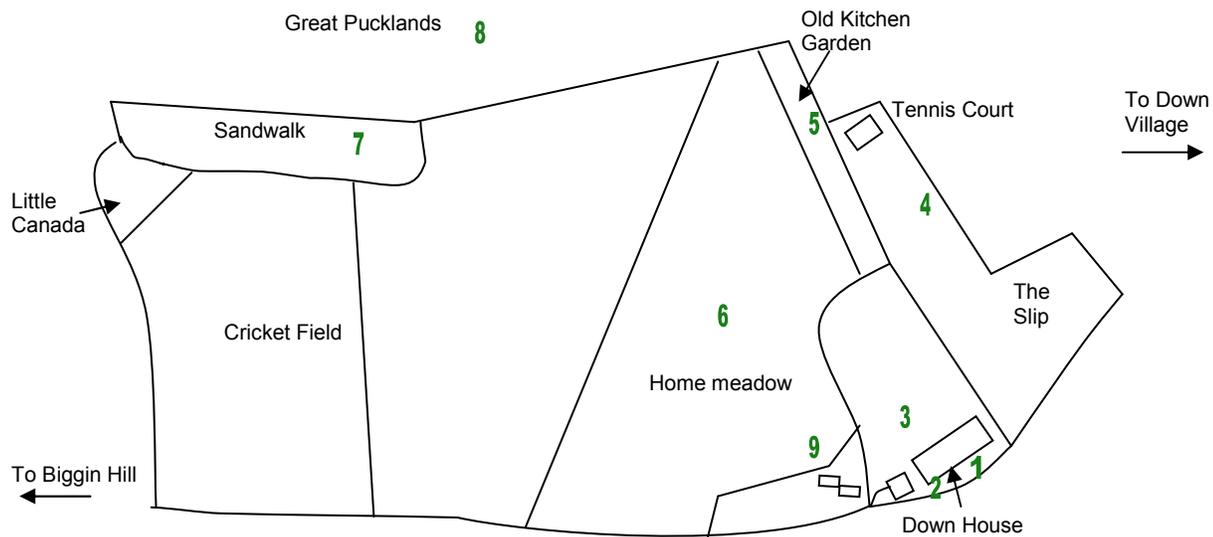
Appendix 2 (After [Atkins 1974](#))**The Owners of Down House**

1651	Thomas Manning	(Property sold to John Know the elder, yeoman for £345)
1652		After litigation between Jacob Manning and others, manor got into the hands of the Palmer family
1653	Roger Know (son of John Know; m.1654) Thomas Know (b. 1658, d. 1728) Roger Know (d. 1736)	(Property descended by gavelkind to his cousins)
1662		Michael Palmer conveyed the manor to Richard Glover
1689		Downe Court leased to Richard Lewell
1727		His family was succeeded by Thomas Lambert
1748	John Know Bartholomew Leonard Bartholomew (d. 1757) (brothers)	(Property conveyed by Leonard Bartholomew the surviving brother for £800)
1751	Charles Hayes of Hatton Garden	(Property descended to wife's family- the Cales)
1759	John Cale (landowner)	(Property descended to the heirs of his nearest relative, Thomas Prowse, M.P. for Somerset)
1768		Glovers conveyed the manor to Claude Champion Crespigny but he was not a resident
1770		Downe Court leased to John Smith and his son also named John Smith bought it in 1824
1777	Lady Mordaunt Mary Prowse (sisters)	(Property sold for £780-18-0)
1778	George Butler, esquire (landowner) (and George Richards of New Inn, gentleman)	(Built the present house; son sold property for £1230)
1791	Cholmely Dering (and Joseph Yates, Foster Brown & Hon. Henry Legge)	(Property sold for £1660)
1801	Thomas Askew	(Property sold for £2280)
1808		Sir John William Lubbock bought the nucleus of the High Elms estate (270 acres) in the parish of Downe from James Edge
1818	Nathaniel Godbold (a property speculator of Fulham)	(Property sold for £2750)
1819	Col. John Johnson	(Property sold for £1425)
1837	Rev. J. Drummond	(Property sold for £2020)
1842	Charles Darwin	

Appendix 3

Figure 2 (After Atkins 1974:34)

The Grounds at Down House



1. [Front Drive](#) and [House Entrance](#)
2. [Kitchen](#)
3. [Flowerbeds](#) and [Lawn](#)
4. [Walled Garden](#) and [Orchard](#)
5. [Kitchen Garden](#) and [Greenhouse](#)
6. Great House Meadow
7. [Sandwalk Copse](#)
8. [Great Pucklands Meadow](#)
9. Service Yards and Enclosures

Figure 3 (After [Atkins 1974](#))

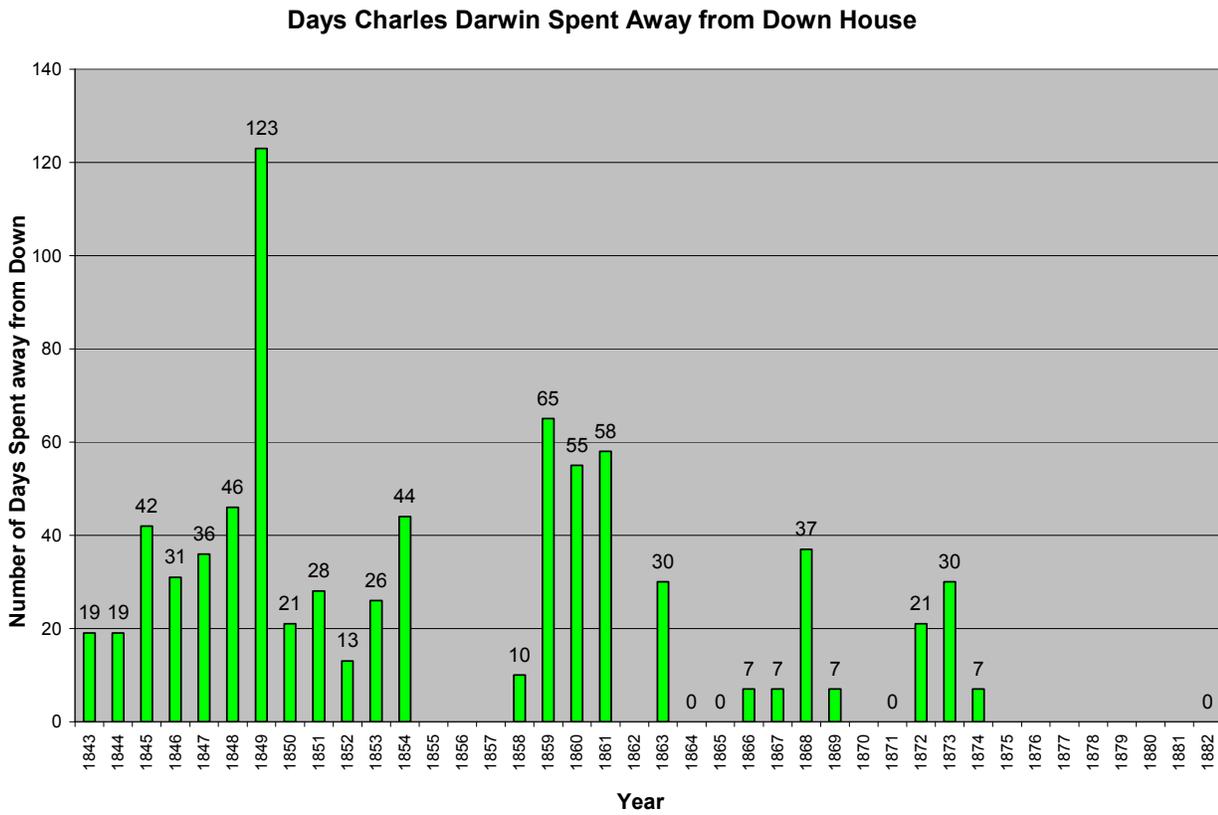


Figure 4 (After [Atkins 1974](#))

