

**Re: Design – Adaptation of the Correspondence of Charles
Darwin and Asa Gray: short version...**

by

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All words with the exception of certain grounding and linking phrases indicated by square brackets are direct quotes from the correspondence or published writings of Asa Gray and Charles Darwin. The punctuation has been altered to aid public reading. Ellipses however indicate an edit in the original text not, necessarily, a pause in the delivery of the line.

SCENE 1: AN UNEVENTFUL LIFE: 1882 and earlier

In which retired Harvard botanist, Asa Gray, memorializes Charles Darwin, shortly after the latter's death.

Music plays: the accompaniment to a setting of Proverbs, Chapter 3, Verses 15 through 17 composed by J. Frederick Bridge especially for the Funeral of Charles Darwin.

Asa Gray is a neat and formal retired Harvard Professor; a fit man in his early 70s. He works at a desk on the composition of his memoir on Charles Darwin.

He finishes, stands and steps forward to deliver his draft memoir.

GRAY: ¹Charles Darwin died on the 19th April [1882], a few months after the completion of his 73rd year...

Gray stops and puts a line through a passage in his draft memoir, clearly unhappy with it. Then he presses on with his delivery:

... His grandfather, Dr Erasmus Darwin... was one of the most notable and original men of his age; and his father, also a physician, was a person of very marked character and ability. His maternal grandfather was Josiah Wedgwood, who, beginning as an artisan potter, produced the celebrated Wedgwood ware... The importance of heritability, which is an essential part of Darwinism, would seem to have had a significant illustration in the person of its great expounder.

¹ A GRAY, 1882, MEMOIR OF DARWIN

Gray, rather more pleased with himself, pauses again to make another note before continuing:

... Mr Darwin lived a very quiet and uneventful life... He made his home on the border of the little hamlet of Down, in Kent.

Gray pictures Darwin, and Darwin appears, in hat and coat, with stick, on one of his daily perambulations along the 'Sand Walk' at Down. He is a man of enormous enthusiasm and good humour, though these attributes are kept in check by a constitutional weakness.

DARWIN: A plain but comfortable brick house in a few acres of pleasure-ground, a pleasantly old-fashioned air about it, with a sense of peace and silence.

GRAY: ... and here, attended by every blessing except that of vigorous health...

DARWIN: ²My confounded stomach.

GRAY: ... he lived the secluded but busy life which best suited his chosen pursuits and the simplicity of his character.

DARWIN: ³I am allowed to work now two-and-a-half hours daily. And I find it as much as I can do. For the cold-water cure, together with three short walks, is curiously exhausting.

Darwin removes his hat and coat, and settles at his writing desk.

GRAY: He was seldom seen even at scientific meetings, and never in general society.

Darwin clears his throat to compose an important letter.

DARWIN: ⁴To the Secretary of the Post-office. We, the undersigned the principal inhabitants of the village of Down in Kent and its neighbourhood, respectfully request your attention to the arrangement for the delivery our letters. Although but a small place, we receive on average from 50 to 60 letters and newspapers, etcetera, daily. A letter posted by general post in London, we receive not until after 9 o'clock the next morning, which is almost too late to act on that day.

GRAY: Personifying... the survival only of the fittest in the struggle for life under the term of Natural Selection, Mr Darwin, with the instinct of genius divined and with the ability of a master, worked out its pregnant and far-reaching applications.

² [C DARWIN TO JD HOOKER, 10 MAY 1848](#)

³ [C DARWIN TO JD HOOKER, 12 OCTOBER 1849](#)

⁴ [C DARWIN ON BEHALF OF THE INHABITANTS OF DOWN TO THE SECRETARY OF THE POST OFFICE, \[1845-55\]](#)

DARWIN: But our chief grievance is that a letter written in any part of Great Britain (except a few places in the South), say on a Monday, is not delivered here till past 9 on the Wednesday morning; such letters lying 23 hours at Bromley, only six miles distant.

GRAY: It is an equally noteworthy fact, and a characteristic of Darwin's mind, that these pregnant ideas were elaborated for more than twenty years before he gave them to the world.

DARWIN: Our hopes for many months have been raised by constant reports of some improvement; but the present result and only change is that the Down Postman delivers all letters in Farnborough, and our delivery has been delayed a full half-hour. By a change granted us a few years ago, our letters leave this place at one o'clock, by which means they get to London in time to be sent out by the general post of the same day, and are delivered within London on that night; we most earnestly pray that this arrangement may not be disturbed. Hoping that you will consider our case favourably. Sir. Your obedient servants.

GRAY: Those privileged to know him...

Darwin composes a new letter: his first to Gray:

DARWIN: My dear [Dr Gray].

GRAY: My dear Darwin.

(No pause for a scene break here, Scene 2 begins the moment Scene 1 ends.)

SCENE 2: I KNOW THIS WILL MAKE YOU DESPISE ME, 1855-1857

In which Darwin initiates a long-running correspondence with Gray, to begin with concerning matters of the global geographical distributions of plants. The men exchange information, criticism and photographs. Gray realizes Darwin is not revealing all of his thinking and, after some gentle coaxing, is let in on the Englishman's secret and potentially incendiary ideas.

An additional spring returns immediately to Gray's step; he has become the man he was in 1855: mid-forties, busy, professional, lighter on his feet and much less his own man than Darwin.

DARWIN & GRAY: April 25th, 1855.

DARWIN: ⁵I hope you will remember that I had the pleasure of being introduced to you at Kew.

Of course Gray remembers (he has just received the letter Darwin is reciting).

⁵ [C DARWIN TO A GRAY, 25 APRIL 1855](#)

I want to beg a great favour of you, for which I well know I can offer no apology. But the favour will not, I think, cause you much trouble and will greatly oblige me... I have for several years been collecting facts on 'Variation', and when I find that any general remark seems to hold good amongst animals, I try to test it in Plants. I have the greatest curiosity about the alpine Flora of the United States and I have copied out of your Manual the enclosed list. Now, I want to know whether you will be so very kind as to append from memory the other habitats or ranges of these plants... appending 'Indig.' for such as are confined to the mountains of the US...

Gray takes up his pen and responds.

GRAY: ⁶May 22nd 1855. Harvard University. My Dear Sir, I remember with much pleasure the opportunity I enjoyed of making your acquaintance at Hooker's three years ago; and besides that should always be most glad if I could in any small degree furnish materials for your interesting investigations. I have filled up the paper you sent me as well as I could.

DARWIN: ⁷My dear Dr Gray. I really hardly know how to thank you enough for the very great trouble which the list of close species must have caused you. What knowledge and labour and judgment is condensed in that little sheet of note-paper!

GRAY: ⁸My dear Mr Darwin, I rejoice in furnishing facts to others to work up in their bearing on general questions. And feel it the more my duty to do so in as much as, from preoccupation of mind and time and want of experience, I am unable to contribute direct original investigations of the sort to the advancement of science...

DARWIN: ⁹You have been so very kind in giving me information of the greatest use to me; that I venture to trouble you / with a question...

GRAY: ¹⁰Do not, I pray you, speak of your letters troubling me. I should be sorry indeed to have you stop, or write more rarely, even though mortified to find that I can so seldom give you the information you might reasonably expect... Yours most sincerely, Asa Gray.

DARWIN: ¹¹My dear Gray... Your indefinite answers are perhaps not the least valuable part. For Botany has been followed in so much more a philosophical spirit than Zoology, that I scarcely ever like to trust any general remark in Zoology, without I find that Botanists concur.

¹²By the way I ventured to send a few days ago a copy of the Gardeners' Chronicle, with a short report by me of some trifling experiments which I have been trying on the power of seeds to withstand sea-water. ¹³Some of my immersed

⁶ [A GRAY TO C DARWIN, 22 MAY 1855](#)

⁷ [C DARWIN TO A GRAY, 24 AUGUST 1855](#)

⁸ [A GRAY TO C DARWIN, 30 JUNE 1855](#)

⁹ [C DARWIN TO A GRAY, 14 JULY 1856](#)

¹⁰ [A GRAY TO C DARWIN, EARLY AUGUST 1856](#)

¹¹ [C DARWIN TO A GRAY, 24 AUGUST 1856](#)

¹² [C DARWIN TO A GRAY, 8 JUNE 1855](#)

¹³ [C DARWIN TO A GRAY, 21 JULY 1855](#)

seeds have come up after 82 and 85 days immersion, viz radishes, beet, atriplex, capsicum, oats, cucurbita, rhubarb, lettuce, carrots, celery, and onions.

GRAY: ¹⁴Why has nobody thought of trying the experiment before! Instead of taking it for granted that salt water kills seeds. I shall have it nearly all reprinted in Silliman's Journal, as a nut for [Professor] Agassiz to crack.

Darwin and Gray share a joke at the expense of Agassiz.

DARWIN: ¹⁵Lyell told me that Agassiz, having a theory about when Saurians were first created, on hearing some careful observations opposed to this, said he did not believe it, for 'Nature never lied'. I am just in this predicament and repeat to you that Nature never lies. Ergo, theorists are always right.

GRAY: ¹⁶Your anecdote... is most characteristic. Instead of learning caution from experience, Agassiz goes on faster than ever, in drawing positive conclusions from imperfect or conjectural data, confident that he reads Nature through and through, and without the least apparent misgiving that anything will turn up that he cannot explain away...

DARWIN: ¹⁷My dear Gray, I was very glad to get your photograph.

Gray poses for a photograph. Flash!

I am expecting mine, which I will send off as soon as it comes. It is an ugly affair, and I fear the fault does not lie with the Photographer.

GRAY: ¹⁸[My dear Mr Darwin...] could not you come over [to the United States], on the urgent invitation given to European savans and free passage provided back and forth in the steamers! ... Will you not come next year, if a special invitation is sent you on the same terms?

DARWIN: ¹⁹Very sincere thanks for your kind invitation ... In truth there is nothing which I should enjoy more; but my health is not, and will, I suppose, never be, strong enough, except for the quietest routine life in the country.

GRAY: [I received] your photograph,

Darwin poses for a photograph. Flash!

... which (though not a very perfect one) I am well pleased to have...

DARWIN: ²⁰I must send you my thanks and hearty admiration. [Your paper on the Statistics of the flora of the northern United States] strikes me as quite

¹⁴ [A GRAY TO C DARWIN, 30 JUNE 1855](#)

¹⁵ [C DARWIN TO A GRAY, 1 JANUARY 1857](#)

¹⁶ [A GRAY TO C DARWIN, 16 FEBRUARY 1857](#)

¹⁷ [C DARWIN TO A GRAY, 11 APRIL 1861](#)

¹⁸ [A GRAY TO C DARWIN, EARLY AUGUST 1856](#)

¹⁹ [C DARWIN TO A GRAY, 24 AUGUST 1856](#)

exhausting the subject, and I quite fancy and flatter myself I now appreciate the character of your Flora... One of your conclusions makes me groan... for it riles me ... dreadfully... Viz that the line of connection of the strictly Alpine plants is through Greenland.

Gray is momentarily embarrassed.

GRAY: ²¹Well, I never meant to draw any conclusions at all, and am very sorry, that the only one I was beguiled into should 'rile' you, as you say it does... Hooker rightly tells me, I have no business to be running after side game of any sort, while there is so much I have to do... to finish undertakings I have long ago begun.

DARWIN: ²²Now, I would say it is your duty to generalise as far as you safely can from your as yet completed work... There, am I not an audacious dog!... When I said that your remarks on your alpine plants 'riled' me; I did not mean to doubt them, except in the Agassian sense that they went against some theoretic notions of mine...

Gray presses Darwin...

GRAY: ²³What you say about extinction...

DARWIN: ²⁴I daresay I may be quite in error.

... but Darwin is reluctant to elaborate.

GRAY: ... I am a very good subject for you to operate on, as I have no prejudice, nor prepossessions in favor of any theory at all.

A beat. Darwin reveals a morsal of his thinking.

DARWIN: I look at Extinction as common cause of small genera and disjoined ranges and therefore they ought, if they behaved properly - and as 'nature does not lie' - to go together.

Gray finds this idea challenging, but he does not reject it.

GRAY: I never yet saw any good reason for concluding that the several species of a genus must ever have had a common or continuous area. Convince me of that, or show me any good grounds for it... and I think you would carry me a good way with you.

Darwin, after a short consideration, decides to let Gray in on his theory.

²⁰ [C DARWIN TO A GRAY, 1 JANUARY 1857](#)

²¹ [A GRAY TO C DARWIN, 16 FEBRUARY 1857](#)

²² [C DARWIN TO A GRAY, AFTER 15 MARCH 1857](#)

²³ [A GRAY TO C DARWIN, 7 JULY 1857](#)

²⁴ [C DARWIN TO A GRAY, 18 JUNE 1857](#)

DARWIN: ²⁵September 5th, 1857. My dear Gray. I should indeed be ungrateful if your letters to me and all I have heard of you, had not strongly enhanced... the warmest feeling of respect to you... But I did not feel in the least sure that, when you knew whither I was tending... you might not think me so wild and foolish in my views (God knows arrived at slowly enough, and I hope conscientiously) that you would think me worth no more notice or assistance.

DARWIN: To give one example, the last time I saw my dear old friend Falconer, he attacked me most vigorously, but quite kindly, and told me... ‘You will do more harm than any ten naturalists will do good. I can see that you have already corrupted and half-spoiled Hooker!!’ Now when I see such strong feeling in my oldest friend, you need not wonder that I always expect my views to be received with contempt. But enough and too much of this...

Darwin draws a deep breath. To business:

²⁶Nineteen years ago it occurred to me that - whilst otherwise employed on Natural History - I might perhaps do good if I noted any sort of facts bearing on the question of the origin of species. And this I have since been doing. Either species have been independently created, or they have descended from other species, like varieties from one species... [And] as an honest man I must tell you that I have come to the heterodox conclusion that there are no such things as independently created species. That species are only strongly defined varieties.

There it is: cat out of the bag. Beat.

I know that this will make you despise me. I do not much underrate the many huge difficulties on this view, but yet it seems to me to explain too much - otherwise inexplicable - to be false... Yours most sincerely and gratefully Charles Darwin.

The action freezes. Momentarily, Gray seems lost in thought. He pulls himself together and steps once more into 1882 and his older, more formal, memoir delivery mode.

GRAY: ²⁷We hardly should have thought, 25 years ago, that [Mr Darwin] would have made such an impression upon the great world.

SCENE 3. CREED AND FEVER: 1858

In which Gray expresses his Christian belief and Darwin discovers that Alfred Wallace has developed his own strikingly similar theory of natural selection. Also, Darwin’s infant son develops scarlet fever, which fever ultimately proves fatal.

GRAY: ²⁸Philosophically, [I am] a convinced theist and, religiously, an acceptor of the creed commonly called the Nicene, as the exponent of the Christian faith.

²⁵ [C DARWIN TO A GRAY, 5 SEPTEMBER 1857](#)

²⁶ [C DARWIN TO A GRAY, 20 JULY 1857](#)

²⁷ [A GRAY TO A DE CANDOLLE, 15 MAY 1882](#)

Reanimated, Darwin opens a package that has just arrived. Its contents (an essay from New Guinea from Alfred Russel Wallace) throw Darwin into a fluster.

GRAY: ²⁹I believe in one God, the Father Almighty, maker of heaven and earth, and of all things visible and invisible.

DARWIN: ³⁰My dear Gray... It is very unlikely, but if by any chance you have my little sketch of my notions of natural Selection and would see whether it or my letter bears any date, I should be very much obliged... I am sure it was written in September, October or November of last year...

GRAY: ³¹And in one Lord Jesus Christ.

DARWIN: Why I ask this is as follows: Mr Wallace who is now exploring New Guinea, has sent me an abstract of the same theory, most curiously coincident even in expressions. And he could never have heard a word of my views. ³²So, all my originality, whatever it may amount to, will be smashed... ³³I should be extremely glad now to publish... my general views. But I cannot persuade myself that I can do so honourably, ³⁴knowing that Wallace is in the field....

Darwin is increasingly anxious, flitting from one worry to the next.

³⁵[And] I fear we have [a] case of scarlet-fever in [the] house with Baby. ³⁶Three children have died in [the] village and others have been at death's door, with terrible suffering.

GRAY: And I believe in the Holy Ghost, the Lord and Giver of Life.

DARWIN: ³⁷It is miserable in me to care at all about priority... ³⁸I always thought it very possible that I might be forestalled, but I fancied that I had grand enough soul not to care; but I found myself mistaken and punished.

GRAY And I look for the Resurrection of the dead and the life of the world to come.

DARWIN: ³⁹You will... be most sorry for us when you hear that poor Baby died yesterday evening. I hope to God he did not suffer so much as he appeared.

²⁸ [A GRAY, PREFACE TO DARWINIANA, 1876](#)

²⁹ THIS REDUCED FORM OF THE NICENE CREED WAS SPOKEN AT THE END OF A SERMON GIVEN BY ALEXANDER MCKENZIE 'IN MEMORY OF ASA GRAY' ON 12 FEBRUARY 1888

³⁰ [C DARWIN TO A GRAY, 4 JULY 1858](#)

³¹ NICENE CREED, CONTINUED

³² [C DARWIN TO C LYELL, 18 JUNE 1858](#)

³³ [C DARWIN TO C LYELL, 25 JUNE 1858](#)

³⁴ [C DARWIN TO C LYELL, 26 JUNE 1858](#)

³⁵ [C DARWIN TO C LYELL, 25 JUNE 1858](#)

³⁶ [C DARWIN TO C LYELL, 26 JUNE 1858](#)

³⁷ [C DARWIN TO JD HOOKER, 29 JUNE 1858B](#)

³⁸ [C DARWIN TO JD HOOKER, 13 JULY 1858](#)

³⁹ [C DARWIN TO JD HOOKER, 29 JUNE 1858A](#)

GRAY: Amen.

DARWIN: He became quite suddenly worse. It was scarlet fever. It was the most blessed relief to see his poor little innocent face resume its sweet expression in the sleep of death. Thank God he will never suffer more in this world. Poor Emma behaved nobly and how she stood it all I cannot conceive.

In silence for a moment, the men contemplate the distances between them.

Darwin retires to write 'On the Origin of Species...'

ACT BREAK

SCENE 4. THE WEAKEST AND BEST PARTS: 1859-1860

In which Darwin distributes copies of his book 'On the Origin of Species by Means of Natural Selection' and provokes strong reactions in favour and in opposition. Gray establishes himself as an important supporter of Darwin in private and defender of his theory in public.

GRAY: ⁴⁰We come to the first publication of what is now known as Darwinism ... The precursory essays of Darwin and Wallace, published in the Proceedings of a scientific society, can hardly have been read except by a narrow circle of naturalists.... But, in the autumn of 1859 appeared the volume *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*'.

Darwin reappears with a freshly printed copy of his book.

DARWIN: ⁴¹November 11th, 1859. My dear Gray. I have directed a copy of my Book [*On the Origin of Species by Means of Natural Selection*]... to be sent you. I know how you are pressed for time; but if... ever you do read it, and can screw out time to send me... however short a note, telling me what you think its weakest and best parts, I should be extremely grateful.

The book makes it's way to Gray.

GRAY: ⁴²Well... the book has reached me, and... it is crammed full of most interesting matter. Thoroughly digested. Well expressed. Close, cogent and, taken as a system, it makes out a better case than I had supposed possible... [It] will excite much attention here, and some controversy...

Agassiz - when I saw him last, had read but a part of it. He says it is – Poor! Very poor!!... The fact [is] he growls over it, like a well cudgelled dog, is very much

⁴⁰ A GRAY, 1882, MEMOIR OF DARWIN

⁴¹ [C DARWIN TO A GRAY, 11 NOVEMBER 1859](#)

⁴² [A GRAY TO JD HOOKER, 5 JANUARY 1860](#)

annoyed by it, to our great delight. ⁴³[He] has been helping the circulation of your book by denouncing it as atheistical.

Darwin sifts through the reviews of his book

DARWIN: ⁴⁴Sedgwick ... has reviewed me savagely and unfairly in the Spectator. The notice includes much abuse and is hardly fair in several respects. ⁴⁵I have been thrashed by Owen in [the] last Edinburgh [Review]; he misquotes and misrepresents me badly. ⁴⁶[And in the] last Dublin Natural History Review is the most unfair thing which has appeared. One mass of misrepresentation.

GRAY: ⁴⁷Under the circumstances I suppose I [will] do [the] theory more good here, by bespeaking for it a fair and favorable consideration, and by standing non-committal as to its full conclusions, than I should if I announced myself a convert. Nor could I say the latter, with truth...

To fulfil your request, I ought to tell you what I think the weakest, and what the best parts of your book... The best part, I think, is the whole. That is, its plan and treatment; the vast amount of facts and acute inferences handled as if you had a perfect mastery of them... I am free to say that I never learned so much from one book as I have from yours...

What seems to me the weakest point in the book is the attempt to account for the formation of organs - the making of eyes, etc. - by natural selection. Some of this reads quite Lamarckian...

DARWIN: ⁴⁸About [the] weak points, I agree. The eye to this day gives me a cold shudder, but when I think of the fine known gradations, my reason tells me I ought to conquer the cold shudder.

⁴⁹Owen, after much shuffling and secrecy, with bitter sneers to some and modified very slight praise to others, has just spoken out that he rejects my views on the ground of the imperfection of the geological record. Now this is just the subject on which he knows, for in his life he has never examined a single stratum.

In 1860, Gray pours himself a glass of water, takes a sip and makes a public statement about Darwin's book

GRAY: ⁵⁰[I] advise nobody to accept Darwin's ... theory as true. The time has not come for that, and perhaps never will. [But, I] also advise against a similar credulity on the other side, in a blind faith that species 'have no secondary cause.'... Surely the scientific mind of an age which contemplates the solar system as evolved from a common revolving fluid mass... cannot be expected to let the old belief about

⁴³ [A GRAY TO C DARWIN, 10 JANUARY 1860](#)

⁴⁴ [C DARWIN TO A GRAY, 3 APRIL 1860](#)

⁴⁵ [C DARWIN TO A GRAY, 25 APRIL 1860](#)

⁴⁶ [C DARWIN TO A GRAY, 8 JUNE 1860](#)

⁴⁷ [A GRAY TO C DARWIN, 23 JANUARY 1860](#)

⁴⁸ [C DARWIN TO A GRAY, 28 JANUARY 1860](#)

⁴⁹ [C DARWIN TO A GRAY, 8 MARCH 1860](#)

⁵⁰ [A GRAY, ARTICLE, ATLANTIC MONTHLY, JULY 1860](#)

species pass unquestioned... We cling to a long-accepted theory, just as we cling to an old suit of clothes. A new theory, like a new pair of breeches is sure to have hard fitting places.

Darwin chuckles at this imagery.

⁵¹The theory of Agassiz regards the origin of species and their present general distribution over the world as equally primordial, equally supernatural; that of Darwin, as equally derivative, equally natural. The ordinary view -- rendering unto Caesar the things that are Caesar's -- looks to natural agencies for the actual distribution and perpetuation of species, to a supernatural for their origin... Surely, Mr. Darwin's theory is none the worse, morally, for having some foundation in fact.

DARWIN: ⁵²My dear Gray... Your article has greatly mollified opposition to my Book.

GRAY: ... A spirited conflict among opinions of every grade must ensue, which... may be likened to the conflict in Nature among races in the struggle for life, which Mr Darwin describes... The views most favored by facts will be developed and tested by 'Natural Selection,' the weaker ones [will] be destroyed in the process, and the strongest in the long-run alone survive.

DARWIN: ⁵³Yesterday I had letter from Hooker at [the] British Association at Oxford; and he tells me that there was one day a savage fight on my Book between Owen and Huxley... [The] Bishop of Oxford, one of most eloquent men in England, ridiculed me at great length.

Gray now corresponds personally with Darwin.

GRAY: ⁵⁴I should have liked to bandy words a little with the Bishop of Oxford.

DARWIN: ... My book has stirred up the mud with a vengeance; and it will be a blessing to me if all my friends do not get to hate me.

GRAY: ⁵⁵I said that... you should have a *fair* hearing [here in the US] ... and have kept my word... I feel the advantage, and see the weight which my remarks have... a weight which would be lost very much had I come in as a convert... [I can defend] against illogical attacks and absurd propositions... [I can] fortify every position as I proceed, so as to defy attack, and be ready for any future sally.

DARWIN: ⁵⁶My dear Gray... I can now very plainly see ... that I should have been fairly annihilated had it not been for four or five men, including yourself.

⁵¹ [A GRAY, REVIEW OF ORIGIN, AMERICAN JOURNAL OF SCIENCE AND ARTS, MARCH 1860](#)

⁵² [C DARWIN TO A GRAY, 3 APRIL 1860](#)

⁵³ [C DARWIN TO A GRAY, 3 JULY 1860](#)

⁵⁴ A GRAY TO JD HOOKER, 17 SEPTEMBER 1860

⁵⁵ A GRAY TO JD HOOKER, 26 MARCH 1860

⁵⁶ [C DARWIN TO A GRAY, 3 JULY 1860](#)

GRAY: ⁵⁷A minister out in Illinois has written me, taking me seriously to task for altering my opinion after the age of 45, and for abetting disorder, by supporting theories that disturb the harmony of opinion that ought to prevail among scientific men.

SCENE 5. CERTAIN BENEFICIAL LINES: 1860

Asa Gray presents his argument of Creation from Design to which Darwin adds his questions, caveats and occasional disagreement.

1860: In Boston, Gray again makes a series of public statements. In Down, Darwin pours himself some tea and responds informally. His reactions are private, directed at Gray alone.

GRAY: ⁵⁸Organic Nature abounds with unmistakable and irresistible indications of design, and, being a connected and consistent system, this evidence carries the implication of design throughout the whole.

DARWIN: ⁵⁹I am bewildered... I own that I cannot see, as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and omnipotent God would have designedly created the Ichneumonidae with the express intention of their feeding within the living bodies of caterpillars. Or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed.

On the other hand, I cannot anyhow be contented to view this wonderful universe and especially the nature of man, and to conclude that everything is the result of brute force.

GRAY: ⁶⁰Natural selection is not the wind which propels the vessel, but the rudder which, by friction, now on this side and now on that, shapes the course... Variation answers to the wind. ⁶¹In... breeding only from those individuals which vary most in a desirable direction, Man leads the course of variation as he leads a streamlet - apparently at will, but never against the force of gravitation.

DARWIN: I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance. Not that this notion at all satisfies me. I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton.

⁵⁷ A GRAY TO REV G FREDERICK WRIGHT, 15 SEP 1875

⁵⁸ [A GRAY, ARTICLE, ATLANTIC MONTHLY, JULY 1860](#)

⁵⁹ [C DARWIN TO A GRAY, 22 MAY 1860](#)

⁶⁰ [A GRAY, DARWINIANA, 1876](#)

⁶¹ [A GRAY, REVIEW OF ORIGIN, AMERICAN JOURNAL OF SCIENCE AND ARTS, MARCH 1860](#)

GRAY: ⁶²The great achievement of Newton consisted in proving that certain forces - blind forces, so far as the theory is concerned - acting upon matter in certain directions, must necessarily produce planetary orbits of the exact measure and form in which observation shows them to exist. A view which is just as consistent with eternal necessity, either in the atheistic or the pantheistic form, as it is with theism.

DARWIN: ⁶³Certainly I agree with you that my views are not at all necessarily atheistical. The lightning kills a man, whether a good one or bad one, owing to the excessively complex action of natural laws...

Darwin scratches his head, becoming confused.

GRAY: If there's a Divinity that shapes these ends, the whole is intelligible and reasonable; otherwise, not. ... We feel safe ... in our profound conviction that there is order in the universe. That order presupposes mind. Design, will. And mind or will, personality.

DARWIN: The more I think, the more bewildered I become.

GRAY: Paley, in his celebrated analogy with the watch, insists that if the timepiece were so constructed as to produce other similar watches, after a manner of generation in animals, the argument from design would be all the stronger. What is to hinder... [us] from giving Paley's argument a further *a fortiori* extension to the supposed case of a watch which sometimes produces better watches. And contrivances adapted to successive conditions. And so, at length, turns out a chronometer, a town clock, or a series of organisms of the same type?

DARWIN: ⁶⁴You are a hybrid. A complex cross of Lawyer, Poet, Naturalist, and Theologian! Was there ever such a monster seen before?... Your metaphors and similies... make me envious.... I should like to steal a few... I like specially that of the woman and the cloth...

GRAY: ⁶⁵Recall a woman of a past generation and show her a web of cloth; ask her how it was made, and she will say that the wool or cotton was carded, spun, and woven by hand. When you tell her it was not made by manual labor, that probably no hand has touched the materials throughout the process, it is possible that she might at first regard your statement as tantamount to the assertion that the cloth was made without design... If you patiently explained to her the theory of carding-machines, spinning-jennies and power-looms, would her reception of your explanation weaken her conviction that the cloth was the result of design? It is certain that she would believe in design as firmly as before, and that this belief would be attended by a higher conception and reverent admiration of a wisdom, skill, and power greatly beyond anything she had previously conceived possible.

⁶² [A GRAY, REVIEW OF ORIGIN, AMERICAN JOURNAL OF SCIENCE AND ARTS, MARCH 1860](#)

⁶³ [C DARWIN TO A GRAY, 22 MAY 1860](#)

⁶⁴ [C DARWIN TO A GRAY, 26 SEPTEMBER 1860](#)

⁶⁵ [A GRAY, AMERICAN JOURNAL OF SCIENCE AND ARTS, SEPTEMBER 1860](#)

Darwin attempts once again to take his argument right back to basics.

DARWIN: ⁶⁶An innocent and good man stands under tree and is killed by flash of lightning. Do you believe ... that God 'designedly' killed this man? Many or most persons do believe this. I can't and don't. If you believe so, do you believe that, when a swallow snaps up a gnat, that God designed that that particular swallow should snap up that particular gnat at that particular instant?

GRAY: ⁶⁷[you] reject... the idea of design, while all the while ... bringing out the neatest illustrations of it!

Darwin blows his nose.

DARWIN: ⁶⁸Will you honestly tell me ...that the shape of my nose (*he wipes his nose with his handkerchief*) was 'ordained and guided by an intelligent cause'?

Gray smiles but is not deflected from making his case.

GRAY: ⁶⁹It is very easy to assume that, because events in Nature are in one sense accidental, and the operative forces which bring them to pass are themselves blind and unintelligent (physically considered, all forces are), therefore they are undirected... ⁷⁰Streams flowing over a sloping plain... may have worn their actual channels as they flowed. Yet their particular courses may have been assigned. ⁷¹So long as gradatory, orderly, and adapted forms in Nature argue design - and at least while the physical cause of variation is utterly unknown and mysterious - we should ... assume... that variation has been led along certain beneficial lines.

DARWIN: ⁷²The man and the gnat are in same predicament. If the death[s] of neither man or gnat are designed, I see no good reason to believe that their first birth or production should be necessarily designed.

GRAY: ⁷³If you import atheism into your conception of variation and natural selection, you can readily exhibit it in the result...

DARWIN: ⁷⁴I had no intention to write atheistically.

GRAY: ... If you do not put it in, perhaps there need be none to come out.

DARWIN: ⁷⁵If I saw an angel come down to teach us good, and I was convinced, from others seeing him, that I was not mad, I should believe in

⁶⁶ [C DARWIN TO A GRAY, 3 JULY 1860](#)

⁶⁷ [A GRAY TO ALPHONSE DE CANDOLLE, 16 FEB 1863](#)

⁶⁸ [C DARWIN TO C LYELL, 21 AUGUST 1861](#)

⁶⁹ [A GRAY, ATLANTIC MONTHLY FOR JULY, AUGUST AND OCTOBER, 1860](#)

⁷⁰ [GRAY'S ARTICLE IN THE ATLANTIC MONTHLY, JULY 1860](#)

⁷¹ [GRAY'S ARTICLE IN THE ATLANTIC MONTHLY, JULY 1860](#)

⁷² [C DARWIN TO A GRAY, 3 JULY 1860](#)

⁷³ [A GRAY, ATLANTIC MONTHLY FOR JULY, AUGUST AND OCTOBER, 1860](#)

⁷⁴ [C DARWIN TO A GRAY, 22 MAY 1860](#)

⁷⁵ [C DARWIN TO A GRAY, 17 SEPTEMBER 1861](#)

design.... But this is childish writing. ⁷⁶I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance. And yet I cannot look at each separate thing as the result of Design.

But Gray is not going to let Darwin off the hook. This statement is directed directly at Darwin.

GRAY: ⁷⁷[You have] not brought forward [any] real objections against [my] views.

DARWIN: ⁷⁸Does not Kant say that there are several subjects on which directly opposite conclusions can be proved true?!

⁷⁹With respect to Design, I feel more inclined to show a white flag than to fire my usual long-range shot... I believe I am in much the same frame of mind as an old Gorilla would be in if set to learn the first book of Euclid. The old Gorilla would say it was of no manner of use... Yet I cannot keep out of the question. ⁸⁰I flounder hopelessly in the mud.

ACT BREAK

SCENE 6. BEGINNING OF WAR IN AMERICA: 1861-1862

In which the start of the American Civil War is announced and Gray declares his passionate allegiance to the Yankee cause, about which Darwin is gently critical, while hoping openly that the war may result in an end to slavery in the USA.

Canon fire. Military drums. The seriousness of political and military events in his homeland have led to his adoption of a more serious, almost belligerent tone.

GRAY: ⁸¹April 1861. We are now opening a war, upon the determination of which our very existence depends. ⁸²All reason and right and patience appears to be on one side: all madness, audacity, and folly on the other. [Our former] feeble administration was helpless in the hands of hoodwinking traitors and thieves. ⁸³[But] Lincoln is a trump, a second Washington. Steady, conservative, no fanatical abolitionist... I pray God I may live to see the end of it, and the [southern] States brought back, quietly if they will, forcibly if they must.

DARWIN: ⁸⁴My dear Gray. In the whirl of your public affairs, science may be forgotten, or if not forgotten you may have no inclination to write. But if so

⁷⁶ [C DARWIN TO A GRAY, 26 NOVEMBER 1860](#)

⁷⁷ [QUOTED IN C DARWIN TO A GRAY, 17 FEBRUARY 1861](#)

⁷⁸ [C DARWIN TO A GRAY, 3 JULY 1860](#)

⁷⁹ [C DARWIN TO A GRAY, 11 DECEMBER 1861](#)

⁸⁰ [C DARWIN TO A GRAY, 17 FEBRUARY 1861](#)

⁸¹ A GRAY TO DE CANDOLLE, 26 APRIL 1861

⁸² A GRAY TO JD HOOKER, 18 FEBRUARY 1861

⁸³ A GRAY TO CHARLES WRIGHT, 17 APRIL 1862

⁸⁴ [C DARWIN TO A GRAY, 16 SEPTEMBER 1861](#)

inclined, I should be very glad to have a little information on any cases of dimorphism, like that of *Primula*...

GRAY: ⁸⁵I have no time nor heart to write of botany just now.

DARWIN: ⁸⁶The whole affair is a great misfortune in the progress of the World. But I should not regret it so much if I could persuade myself that slavery would be annihilated. ...But Heaven knows why I trouble you with my speculations. I ought to stick to Orchids.

GRAY: ⁸⁷The unfriendly attitude of England gives us much concern. ⁸⁸...playing off one portion against the other, and bullying both. ⁸⁹It is generally believed that the governing influence in England desires to have us a weak and divided people, and would do a good deal to secure it. ⁹⁰It is the old question of struggle for life... The weak must go to the wall... 'Blessed are the 'strong', for they shall inherit the earth'. ⁹¹Your cordial friend and true Yankee, Asa Gray.

SCENE 7. THE DARWIN BOYS: 1862

In which Darwin reports one son's appreciation of natural selection and another's desire to collect US postage stamps.

DARWIN: ⁹²My dear Gray. I must tell you that the other day [my boy Horace] overheard me talking about species; and afterwards he came to me, with his eyes open with astonishment and asked 'Did people formerly really believe that animals and plants never changed?' I answered Oh yes. 'Well then, what did they say about the kinds of cabbages and peas in the Garden?' I answered that these were all due to man's agency. 'But do not wild plants vary?' I answered that they varied within certain fixed but unknown limits. To this he shrugged his shoulders with pity for the poor people who 'formerly' believed in such conclusions. I believe Horace is a prophetic type, as Agassiz would say, of future naturalists.

⁹³Farewell, my good friend... God help your poor country, though perhaps you scorn our pity.

GRAY: ⁹⁴No, dear Darwin, we don't scorn your joining in the prayer that we daily offer that 'God would help our poor country', and I know and appreciate your honest and right feeling...

⁸⁵ A GRAY TO DE CANDOLLE, 26 APRIL 1861

⁸⁶ [C DARWIN TO A GRAY, 21 JULY 1861](#)

⁸⁷ A GRAY TO DE CANDOLLE, 16 DEC 1861

⁸⁸ A GRAY TO ENGELMANN, 20 FEB 1862

⁸⁹ [A GRAY TO C DARWIN, 31 DECEMBER 1861](#)

⁹⁰ [A GRAY TO C DARWIN, 18 FEBRUARY 1862](#)

⁹¹ [A GRAY TO C DARWIN, 31 MARCH 1862](#)

⁹² [C DARWIN TO A GRAY, 23 NOVEMBER 1862](#)

⁹³ [C DARWIN TO A GRAY, 6 NOVEMBER 1862](#)

⁹⁴ [A GRAY TO C DARWIN, 24 NOVEMBER 1862](#)

DARWIN: ⁹⁵I have [another] Boy with the collecting mania and it has taken the poor form of collecting Postage stamps. He is terribly eager for 'Wells, Fargo and Co. Pony Express 2d and 4d stamp', and in a lesser degree 'Blood's One Penny Envelope, 1, 3, and 10 cents'. If you will make him this present, you will give my dear little man as much pleasure, as a new and curious genus gives us old souls.

GRAY: ⁹⁶Some young people here, of Mrs. Gray's family take to stamp-collecting, and will help. They say Wells, Fargo and Co. Express are most rare. I never saw them... 'Blood', a Philadelphia penny-post carrier, is more common... I enclose a three cent, and will lay hold of the first one and two cent ones that I see...

DARWIN: ⁹⁷Our Boy the Postage Stamp collector ... had a return of Scarlet fever, with all sorts of mischief, kidneys, glands of neck. ⁹⁸I despaired of his life. But this evening he has eaten one mouthful and I think has passed the crisis. He has lived on Port-wine every three-quarters of an hour day and night. This evening to our astonishment he asked whether his stamps were safe and I told him of the one sent by you, and that he should see it tomorrow. He answered 'I should awfully like to see it now'. So with difficulty he opened his eyelids and glanced at it and with a sigh of satisfaction, said 'all right'.

GRAY: ⁹⁹Really, if one can give so much satisfaction at so cheap a rate, one would become a stamp collector for the purpose of supplying the good fellow.

DARWIN: ¹⁰⁰Children are one's greatest happiness, but often... a still greater misery. A man of science ought to have none. Perhaps not a wife. For then there would be nothing in this wide world worth caring for and a man might - whether he would is another question - work away like a Trojan.

GRAY: ¹⁰¹We have no children. Which I regret only [in] that I have no son to send to the war.

Darwin does not know how to respond to this statement as so says/writes nothing.

After a hiatus in their correspondence, Darwin once again takes up his pen.

SCENE 8. BOOKS BY THE LATE CHARLES DARWIN: 1863-1865

In which Darwin struggles more than usual with his health, grows a beard, and cancels The Times (and the Yankees win the American Civil War).

⁹⁵ [C DARWIN TO A GRAY, 10--20 JUNE 1862](#)

⁹⁶ [A GRAY TO C DARWIN, 2 JULY 1862](#)

⁹⁷ [C DARWIN TO A GRAY, 14 JULY, 1862](#)

⁹⁸ [C DARWIN TO A GRAY 23\[--4\] JULY 1862](#)

⁹⁹ [A GRAY TO C DARWIN, 18--19 AUGUST 1862](#)

¹⁰⁰ [C DARWIN TO A GRAY 23\[--4\] JULY 1862](#)

¹⁰¹ [A GRAY TO C DARWIN, 7 JULY 1863](#)

DARWIN: ¹⁰²February 1864... My dear Gray. It is now six months since I have done a stroke of work... The vomiting is not now daily and on my good days, I am much stronger. My head hardly now troubles me, except singing in [the] ears...

¹⁰³I send a Photograph of myself with my Beard. Do I not look venerable?

Darwin poses for a photograph. Flash!

GRAY: ¹⁰⁴Your photograph, with the venerable beard gives the look of your having suffered, and, perhaps from the beard, of having grown older. I hope there is still much work in you.

DARWIN: ¹⁰⁵What I shall soon have to do, will be to erect a tablet in Down church 'sacred to the memory. etc' and officially die. And then publish books 'by the late Charles Darwin'.

Darwin takes up The Times.

¹⁰⁶[I] do not in the least know whether the... *Times* is to be trusted that there will be peace, and that the middle States will join with the South on Slavery and eject the northern states.

GRAY: ¹⁰⁷Some of the representations of us in English papers would be amusing if they did not now do so great harm.

DARWIN: ¹⁰⁸How detestably the special correspondent of *The Times* writes on the subject. The man has not a shade of feeling against slavery. ¹⁰⁹My good wife wishes to give it up; but I tell her... To give up the 'Bloody Old Times' as Cobbett used to call it, would be to give up meat, drink and air.

GRAY: ¹¹⁰From the English papers... you must picture us as in the extreme of turmoil and confusion and chaos. But, if you were here, you would open your eyes to see everything going on quietly, hopefully, and comfortably as possible. ¹¹¹We are getting on quietly with our war... Now that we are used to it, we can keep it up two years longer as well as not, if our rebels choose not to yield. ¹¹²Our Courage does not fail, and I think will not.

Darwin puts down The Times and takes up the Daily News.

DARWIN: ¹¹³My wife, in indignation, has changed *The Times* for *The Daily News*

¹⁰² [C DARWIN TO A GRAY 25 FEBRUARY 1864](#)

¹⁰³ [C DARWIN TO A GRAY 28 MAY 1864](#)

¹⁰⁴ [A GRAY TO C DARWIN 11 JULY 1864](#)

¹⁰⁵ [C DARWIN TO JD HOOKER, 3 JAN 1863](#)

¹⁰⁶ [C DARWIN TO A GRAY 13 SEPTEMBER 1864](#)

¹⁰⁷ [A GRAY TO C DARWIN, 31 DECEMBER 1861](#)

¹⁰⁸ [C DARWIN TO A GRAY, 16 OCTOBER 1862](#)

¹⁰⁹ [C DARWIN TO ASA GRAY, 23 FEBRUARY 1863](#)

¹¹⁰ [A GRAY TO C DARWIN, 24 NOVEMBER 1862](#)

¹¹¹ [A GRAY TO C DARWIN, LATE JUNE 1862](#)

¹¹² [A GRAY TO C DARWIN, 27 OCTOBER 1862](#)

¹¹³ [TO ASA GRAY 29 OCTOBER 1864](#)

GRAY: ¹¹⁴I congratulate Mrs. Darwin!

DARWIN ...which I find rather dull.

Gray is proud and delighted to announce:

GRAY: ¹¹⁵1 May 1865... Well, 'treason has done its worst' and rebellion, as an organised power, is essentially brought to an end. Slavery is done away, and we have now the task of establishing a new and better order of things... A heavy task, no doubt. But the good Providence that has so wonderfully shaped our ways and sustained us thus far, we humbly and confidently rely on to carry our dear country through all its trials.

DARWIN: ¹¹⁶I declare I can hardly yet realise the grand, magnificent fact that Slavery is at end in your country. ¹¹⁷How egregiously wrong we English were in thinking that you could not hold the South after conquering it. ¹¹⁸Ever yours cordially (though an Englishman) Charles Darwin.

GRAY: ¹¹⁹On Friday... we welcomed back our Harvard men who had been in the war. Over 500 of them. And remembered those who had died for their country. What a day we had!

The setting off of guns, music, which sounds eventually fade.

ACT BREAK

SCENE 9. GRAY PAYS DARWIN A VISIT AT DOWN: 1868

In which Gray announces his intention to visit Europe with Mrs Gray, while his and Darwin's attitude to intelligent design diverge further from one another. The two naturalists come together personally while moving apart theologically.

GRAY: ¹²⁰Summer. 1868. The gist of my present note is to say that I have got a year's leave of absence, and Mrs Gray and I expect to cross over to England in two months... Mrs Gray's health makes me anxious to avoid another winter here, at present. The change will be good for us both.

DARWIN: ¹²¹You must pay us a visit at Down and see our solitary and very quiet life.

GRAY: We mean to pass the whole autumn in England, mostly at Kew, and most of the winter in Italy and perhaps Egypt.

¹¹⁴ [FROM ASA GRAY 5 DECEMBER 1864](#)

¹¹⁵ [A GRAY TO RW CHURCH, 1 MAY 1865](#)

¹¹⁶ [C DARWIN TO A GRAY 16 APRIL 1866](#)

¹¹⁷ [C DARWIN TO A GRAY, 15 AUGUST 1865](#)

¹¹⁸ [C DARWIN TO A GRAY, 20 APRIL 1863](#)

¹¹⁹ [A GRAY TO C DARWIN, 24 JULY 1865](#)

¹²⁰ [A GRAY TO RW CHURCH, 22 JUNE 1868](#)

¹²¹ [C DARWIN TO A GRAY, 15 AUGUST 1868](#)

DARWIN: ¹²²I am [at present] plodding on, heavily correcting, and trying to make an atrociously bad style a little better, my book ‘On the Variation of Animals and Plants under Domestication’. I finish ... with a semi-theological paragraph, in which I quote and differ from you[r] ¹²³doctrine that each variation has been specially ordered or led along a beneficial line. It is foolish to touch such subjects. But there have been so many allusions to what I think about the part which God has played in the formation of organic beings, that I thought it shabby to evade the question. ¹²⁴What you will think of it, I know not. ¹²⁵A Reviewer in an Edinburgh paper, who treats me with profound contempt, says on this subject that Professor Asa Gray could, with the greatest ease, smash me into little pieces.

Gray is laughing

GRAY: ¹²⁶I wish he may live to see it done!

Seriously though... Gray and Darwin are addressing different audiences. Darwin clears his throat and makes a definitive, public statement against design.

DARWIN: ¹²⁷I can see no evidence of beneficent design, or indeed of design of any kind, in the details. As for each variation that has ever occurred having been preordained for a special end, I can no more believe in it than that the spot on which each drop of rain falls has been specially ordained. ¹²⁸The 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.

Gray also makes a declaration.

GRAY: ¹²⁹[I remain] one who is scientifically, and in his own fashion, a Darwinian, [and] philosophically a convinced theist.

DARWIN: The mystery of the beginning of all things is insoluble by us and I for one must be content to remain an Agnostic.

GRAY: ¹³⁰Whatever Mr Darwin’s philosophy may be, or whether he has any, is a matter of no consequence at all... The argument from design always appeared conclusive of the being, and continued operation of, an intelligent First Cause. The Ordainer of Nature.

Darwin and Gray have for the first time become obviously irritated with one another’s positions.

¹²² [C DARWIN TO A GRAY, 15 APRIL 1867](#)

¹²³ [C DARWIN TO JD HOOKER, 8 FEB 1867](#)

¹²⁴ [C DARWIN TO A GRAY, 15 APRIL 1867](#)

¹²⁵ [C DARWIN TO A GRAY, 8 MAY 1868](#)

¹²⁶ [A GRAY TO C DARWIN, 25 MAY 1868](#)

¹²⁷ [C DARWIN TO JD HOOKER, 12 JULY 1870](#)

¹²⁸ C DARWIN, AUTOBIOGRAPHY, 1876

¹²⁹ [A GRAY, PREFACE, DARWINIANA, 1876](#)

¹³⁰ [A GRAY, ATLANTIC MONTHLY FOR JULY, AUGUST, AND OCTOBER, 1860](#)

DARWIN: ¹³¹Can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animal, be trusted when it draws such grand conclusions?

GRAY: A fortuitous Cosmos is simply inconceivable. The alternative is a designed Cosmos... Variation and natural selection open no third alternative. They concern only the question how the results, whether fortuitous or designed, may have been brought about.

Darwin and Gray have reached a philosophical impasse. Any personal frostiness melts away immediately as, for the first time in this dramatisation, they greet one another in person.

GRAY: ¹³²My dear Darwin.

DARWIN: ¹³³My dear Gray.

They shake hands, good friends who have never met before as friends.

A camera flash catches the moment

Gray steps out of the picture. He is moved by the memory of the meeting.

GRAY: ¹³⁴Those privileged to know [Mr Darwin] will well certify that he was one of the most kindly and charming, unaffected, simple-hearted, and lovable of men.

Gray searches for evidence to support his statement and finds what he is looking for: one of his wife's letters.

GRAY: ¹³⁵[Mrs Gray in 1868 wrote her sister that] ... Mr Darwin [is].. fascinating... [he has] the sweetest smile, the sweetest voice, the merriest laugh! And so quick, so keen!

Gray steps back with Darwin again to pose for a second photograph, laughing and enjoying one another's company. Then Darwin moves off, walking his solitary sand walk once again.

GRAY: He never stayed long with us at a time. But, as soon as he had talked much, he said he must go and rest. Especially if he had had a good laugh.

Gray watches Darwin leave with some regret.

¹³¹ C DARWIN, AUTOBIOGRAPY, 1876

¹³² A GRAY'S USUAL FORM OF ADDRESS IN HIS LETTERS TO DARWIN AT THIS TIME

¹³³ C DARWIN'S USUAL FORM OF ADDRESS IN HIS LETTERS TO GRAY AT THIS TIME

¹³⁴ A GRAY, 1882, MEMOIR OF DARWIN

¹³⁵ JANE LORING GRAY, LETTER TO HER SISTER, 1868 or 1869

GRAY: ¹³⁶It is really serious, this leaving England, and choice friends in it, when one considers that, whatever I may fondly say, I cannot expect to see it again. I do not say ‘them’.

ACT BREAK

SCENE 10. VERMIFORM PILES: 1868-1876

In which the friends consider the benefits and drawbacks of age and while Gray looks forward to retirement, Darwin appears more active than ever.

Gray returns to his Harvard study and sets to work. He is beginning to feel his age. Darwin is in Down, looking over old papers, including old letters of Gray.

DARWIN: ¹³⁷My dear Gray. When I look over your letter[s] ... and see all the things you tell me and all the trouble which I have caused you, overworked as you are, upon my life I am ashamed of myself. ¹³⁸I suppose [once more] you are working away as hard as ever. I think the older one gets the more there is to do.

GRAY: ¹³⁹I am half dead with drudgery ¹⁴⁰[I took on work] when I foolishly thought there was no end of work in me. ¹⁴¹[But now, at least,] I am working away at what I am fittest for: study of groups of North American plants one by one. Slow work, but pleasant.

DARWIN: ¹⁴²It is dreadful work making out anything about dried flowers. I never look at one without feeling profound pity for all botanists, but I suppose you are used to it like eels to be skinned alive.

GRAY: ¹⁴³Saturday I gave the last lecture that I mean ever to deliver!

This thought lifts Gray’s spirits.

DARWIN: ¹⁴⁴I have finished my book on the ‘Descent of man etc.’, and its publication is delayed only by the Index. When published, I will send you a copy, but I do not know that you will care about it. Parts... will I daresay aggravate you. And, if I hear from you, I shall probably receive a few stabs from your polished stiletto of a pen.

¹³⁶ A GRAY TO RW CHURCH, LATE IN STAY 1881

¹³⁷ [C DARWIN TO A GRAY, 19 JANUARY 1863](#)

¹³⁸ [C DARWIN TO A GRAY, 9 AUGUST 1876](#)

¹³⁹ [A GRAY TO C DARWIN, 25 MAY 1868](#)

¹⁴⁰ A GRAY TO JD HOOKER, 21 NOV 1865

¹⁴¹ [A GRAY TO C DARWIN, 27 FEBRUARY & 1 MARCH 1870](#)

¹⁴² [C DARWIN TO A GRAY, 8 MARCH 1877](#)

¹⁴³ A GRAY TO JD HOOKER, 3 JULY 1873

¹⁴⁴ [C DARWIN TO A GRAY, 5 FEBRUARY \[1871\]](#)

Gray takes receipt of Darwin's latest book and begins to leaf through it.

GRAY: ¹⁴⁵[since atheistic doctrines of evolution] are prevailing and likely to prevail, more or less, among scientific men, I have thought it important and have taken considerable pains to show that they may be held theistically.... Indeed, I expect that a coming generation will give me the credit {which I am content to wait for} of being one of the few who fought manfully for the very citadel of natural theology when misguided friends were hurling away its bulwarks.

A passage in Darwin's book catches Gray's attention and draws a smile out of him.

GRAY: ¹⁴⁶ You have such a way of putting things ... Almost thou persuadest me to have / been...

DARWIN: ¹⁴⁷Man is descended from...

DARWIN & GRAY: ... 'a hairy quadruped, of arboreal habits, furnished with a tail and pointed ears'

GRAY: etcetera.

DARWIN: ... probably arboreal in its habits. This creature, if its whole structure had been examined by a naturalist, would have been classed amongst the Quadrumana as surely as would the common and still more ancient progenitor of the Old and New World monkeys.

GRAY: ¹⁴⁸You do not speak of yourself, but as you write with your own hand, I infer you are pretty well.

DARWIN: ¹⁴⁹My wife and self have our game of backgammon every evening... [She] threatens me sometimes if I triumph too much.

GRAY: ¹⁵⁰My wife (who sends her love to you and yours) is much amused by your backgammon reminiscence. For the year past we have a way of getting on most peacefully. I sit by her side and play solitaire with two packs of cards. She looks on and helps, and when we don't succeed there is nobody to 'flare up' against but luck.

DARWIN: ¹⁵¹Pray give our very kind remembrances to Mrs Gray. I know that she likes to hear men boasting. It refreshes them so much. Now the tally with my wife in backgammon stands thus: She, poor creature, has won only 2490 games, whilst I have won, hurrah, hurrah, 2795 games!

¹⁴⁵ A GRAY TO CLARA? 3 MARCH 1873

¹⁴⁶ [A GRAY TO C DARWIN, 14 APRIL 1871](#)

¹⁴⁷ C DARWIN, THE DESCENT OF MAN AND SELECTION IN RELATION TO SEX, 1871

¹⁴⁸ [A GRAY TO C DARWIN, 3 AUGUST 1871](#)

¹⁴⁹ [C DARWIN TO A GRAY, 3 JUNE 1874](#)

¹⁵⁰ [A GRAY TO C DARWIN, 16 JUNE 1874](#)

¹⁵¹ [C DARWIN TO A GRAY, 28 JANUARY 1876](#)

GRAY: ¹⁵²It would do [Mrs Gray] good to have one of those hearty laughs with you.

DARWIN: ¹⁵³I have taken up an old subject which formerly interested me. Namely, the amount of earth brought to the surface by worms. I want to know whether you have in the States the little vermiform piles of earth which are so common on our lawns, fields, woods and waste lands. Are they as numerous with you as they are with us? I should have assumed that this would naturally be the case had it not occurred to me that the severe winters might make all the difference.

SCENE 11. HAPPY IS THE MAN THAT FINDETH WISDOM: 1882

In which Gray concludes his memoir of Darwin and puts the great man to rest.

Gray has returned to the formal memorializing of Darwin with which he began this dramatization.

GRAY: ¹⁵⁴That Mr Darwin should have had the courage to undertake and the patience to carry on new inquiries of this kind after he had reached his threescore and ten years of age, and after he had attained an unparalleled breadth of influence and wealth of fame, speaks much for his energy and for his devotion to knowledge for its own sake...

Darwin, surrounded by books and papers, is motionless.

GRAY: An English poet wrote that he awoke one morning and found himself famous. When this happened to Darwin, it was a genuine surprise. Although he had addressed himself simply to scientific men, and had no thought of arguing his case before a popular tribunal, yet 'the Origin of Species' was too readable a book upon too sensitive a topic to escape general perusal. And this, indeed, must in some sort have been anticipated. But the avidity with which the volume was taken up, and the eagerness of popular discussion which ensued, were viewed by the author - as his letters at the time testify - with a sense of amused wonder at an unexpected and probably transient notoriety...

Charles Darwin died on the 19th [of] April [1882], a few months after the completion of his 73rd year...

Gray interrupts delivery of his memoir with an impromptu personal note.

¹⁵⁵Such [losses] are a great drawback to the privileges of old age. You get left so alone, especially childless people, like Mrs Gray and I. But we slip away all the easier for it when the time comes.

¹⁵² [A GRAY TO C DARWIN, 11 DECEMBER 1874](#)

¹⁵³ [C DARWIN TO A GRAY, 15 JANUARY 1872](#)

¹⁵⁴ A GRAY, 1882, MEMOIR OF DARWIN

¹⁵⁵ A GRAY TO JD HOOKER, 21 APR 1882

Gray pulls himself together and continues with his memoir.

¹⁵⁶ ... On the 26th [of April], the mortal remains of the most celebrated man of science of the nineteenth century were laid to rest in Westminster Abbey, near to those of Newton.

Gray puts down his memoir and takes up his Bible and sings the first few phrases of the setting of Proverbs, Chapter 3, Verses 15 through 17 composed by J. Frederick Bridge especially for Darwin's Funeral.

GRAY: ¹⁵⁷HAPPY IS THE MAN,
THE MAN THAT FINDETH WISDOM,
AND GETTETH UNDERSTANDING,
GETTETH UNDERSTANDING

He has not quite the emotional strength to continue singing... so speaks the remainder of the passage:

GRAY: ... for the merchandise of it is better than the merchandise of silver, and the gain thereof, than fine gold. Her ways are ways of pleasantness, and all her paths are peace. She is a tree of life to them that lay hold upon her; and happy is every one that retaineth her. Amen.

Gray returns once more to his desk to write.

GRAY: ¹⁵⁸I grind away at [my] 'Flora' but, like the mills of the gods, I grind slowly, as becomes my age. Moreover, to continue the likeness, I grind too 'exceeding fine', being too finical for speed, pottering over so many things that need looking into, and which I have not the discretion to let alone. Consequently, the grist of each day's work is pitiably small in proportion to the labour expended on it. I am now at Malvaceae which I once enjoyed setting to rights, and of which the North American species have got badly muddled since I had to do with them.

Gray works on.

THE END

¹⁵⁶ A GRAY, 1882, MEMOIR OF DARWIN

¹⁵⁷ THESE VERSES WERE ALSO SPOKEN AT GRAY'S OWN MEMORIAL SERVICE.

¹⁵⁸ A GRAY TO JD HOOKER, 31 OCT 1886