Excerpt from
*Consolations in Travel or, the Last Days of a Philosopher*
(written 1829 and before)
by Humphrey Davy

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Note: There may be some OCR typos in this.
CONSOLATIONS IN TRAVEL;
OR, THE LAST DAYS OF A PHILOSOPHER.

BY
SIR HUMPHRY DAVY, BART.,
_Late President of the Royal Society_.

CASSELL & COMPANY, LIMITED:
_LONDON, PARIS, NEW YORK & MELBOURNE_.
1889

Illustrations, *notes, and *comments added by Daniel Newsome.
INTRODUCTION.

by the Editor: Henry Morley

Humphry Davy was born at Penzance, in Cornwall, on the 17th of December, 1778, and died at Geneva on the 29th of May, 1829, at the age of fifty. He was a philosopher who turned knowledge to wisdom; he was one of the foremost of our English men of science; and this book, written when he was dying, which makes Reason the companion of Faith, shows how he passed through the light of earth into the light of heaven.

His father had a small patrimony at Varfell, in Ludgvan. His mother had lost in early childhood both her parents within a few hours of each other, and had been adopted by John Tonkin, an eminent surgeon in Penzance, to whom, therefore, so to speak, Humphry Davy became grandson by adoption. There were five such grandchildren—Humphry, the elder of two boys, the other boy being named John, and three girls.

At a preparatory school and at the Penzance Grammar School Humphry Davy was a noticeable boy. He read eagerly and showed great quickness of imagination, delighted in legends, when eight years old told stories to his companions, and as a boy wrote verse. There was a Quaker saddler who made for himself an electrical machine and mechanical models, in which young Davy took keen interest, and from that saddler, Robert Dunkin, came the first impulse towards experiments in science. At fifteen Davy was placed for further education at a school in Truro. A year later his father died, and John Tonkin apprenticed him, on the 10th of February, 1795, to Dr. Borlase, a surgeon in large practice at Penzance. Medical practitioners in those days dispensed their own medicines, and the inquiring mind of this young apprentice being let loose upon a store-room of chemicals, experimental chemistry became his favourite pursuit. His grandfather, by adoption, allowed him to fit up a garret as a laboratory, notwithstanding the fears of the household that "This boy, Humphry, will blow us all into the air."

Activity and originality of mind, with a persistent habit of inquiry and experiment, brought Davy friends who could appreciate and help him. When Dr. Beddoes,¹ of Bristol, was examining the Cornish coast, in 1798, he came upon young Humphry Davy, was told of researches made by him, and urged to engage him as laboratory assistant in a Pneumatic Institution that he was then establishing in Bristol. Davy went in October, 1798, then in his twentieth year; but his good friend, and grandfather by

¹ Davy and Beddoes conducted many experiments with nitrous oxide [N₂O], laughing gas. In fact, Davy was supposedly addicted to it. At one point James Watt (famous for his steam engine designs) made a portable gas chamber for Davy's experiments. Davy claimed to have found a cure for the hangover using nitrous oxide. It was only after Davy's death that laughing gas was used as an anesthetic. In the 19th century laughing gas was very popular at parties.
adoption, had set his heart upon Humphry's becoming an eminent burgeon, and even altered his will when his boy yielded to the temptation of a laboratory for research. Men also know something of the trouble of the hen who has a chance duckling in her brood, and sees that contumacious chicken run into the water deaf to all the warnings of her love.

At Bristol Humphry Davy came into companionship with Coleridge and Southey, who were then also at the outset of their career, and there are poems of his in the Poetical Anthology then published by Southey. But at the same time Davy contributed papers on "Heat, Light, and the Combinations of Light," on "Phos-Oxygen and its Combinations," and on "The Theory of Respiration," to a volume of West Country Collections, that filled more than half the volume. He was experimenting then on gases and on galvanism [electro-chemistry], and one day by experiment upon himself, in the breathing of carburetted hydrogen, he almost put an end to his life.

In 1799 Count Rumford was founding the Royal Institution, and its home in Albemarle Street was then bought for it. The first lecturer appointed was in bad health, and in 1801 he was obliged to resign. Young Davy was now known to men of science for the number and freshness of his experiments, and for the substantial value of his chemical discoveries. It was resolved by the managers, in July, 1801, that Humphry Davy be appointed Assistant-Lecturer in Chemistry, Director of the Chemical Laboratory, and assistant-editor of the journals of the Royal Institution. His first remuneration was a room in the house, coals and candles, and 100 pounds a year. Count Rumford held out the prospect of a professorship with 300 pounds a year, and the certainty of full support in the use of the laboratory for his own private research. His age then was twenty-three. He at once satisfied men of science and amused people of fashion. His energy was unbounded; there was a fascination in his personal character and manner. He was a genial and delightful lecturer, and his inventive genius was continually finding something new. A first suggestion of the process of photography was dropped incidentally among the records of researches that attracted more attention. Davy had been little more than a year at the Royal Institution when he was made its Professor of Chemistry. After another year he was made a Fellow. Dr. Paris, his biographer, says that "the enthusiastic admiration which his lectures obtained is at this period scarcely to be imagined. Men of the first rank and talent--the literary and the scientific, the practical, the theoretical--blue-stockings and women of fashion, the old and the young, all crowded--eagerly crowded--the lecture-room." At the beginning of the year 1805 his salary was raised to 400 pounds a year. In May of that year the Royal Society awarded to him the Copley Medal. Within the next two years he was elected Secretary of the Royal Society. Since 1800 he had been advancing knowledge by experiments with galvanism. The Royal Institution raised a special fund to place at his disposal a more powerful galvanic battery than any that had been constructed. The fame
of his discoveries spread over Europe.

The Institute of France gave Davy the Napoleon Prize of three thousand francs for the best experiments in galvanism. Dublin, in 1810, paid Davy four hundred guineas for some lectures upon his discoveries. The Farming Society of Ireland gave him 750 pounds for six lectures on chemistry applied to agriculture. In the following year he received more than a thousand pounds for two courses of lectures at Dublin, and was sent home with the honorary degree of LL.D. In April, 1812, he was knighted, resigned his professorship at the Royal Institution, and "in order more strongly to mark the high sense of his merits" he was elected Honorary Professor of Chemistry. In the same month Davy married a young and rich widow, who had charmed all Edinburgh by her beauty and her wit. Two months after marriage Sir Humphry Davy dedicated to his wife his "Elements of Chemical Philosophy." In March, 1813, he published his "Elements of Agricultural Chemistry." He travelled abroad, and was received with honour by the chief men of science in all places that he visited. When, at Pavia, he first met Volta: he found that Volta had put on full-dress to receive him.

Around this time (1812/13) Davy hired Michael Faraday as his laboratory assistant.

In August, 1815, Davy's attention was drawn to the loss of life by explosions of fire-damp [See description below], and by the end of the year
he had devised his safety-lamp. The coal owners subscribed 1,500 pounds for a testimonial, gave him also a dinner and a service of plate. In October, 1818, he was made a baronet. In November, 1820, he was elected President of the Royal Society.

Basically the "safety-lamp," was an oil lamp with a screen-shade. Davy figured out that a screen (metallic gauze) of a particular dimension would not allow an open flame to ignite mine gasses like methane but still allowed oxygen to continue the combustion of the oil-wick. (The heat of the flame was dissipated by the screen to a point below the combustion temp. of methane or similar gas.) The increased use of the Davy safety lamp may have actually led to an increase in mining accidents as it opened up mines that had been previously been abandoned due to gas explosion issues. [trivia-These mine gasses were called firedamp or minedamp.]

His next researches were chiefly on electro-magnetism and the protection of the copper sheathing on ships' bottoms. At the end of 1826 his health failed seriously. He went to Italy; resigned, in July, 1827, the Presidency of the Royal Society; came back to England, longing for "the fresh air of the mountains;" wrote and published his "Salmonia, or Days of Fly-fishing." In the spring of 1828 he left England again. He was at Rome in the winter of 1829, still engaged in quiet research, and it was then that he wrote his "Consolations in Travel; or, the Last Days of a Philosopher." His wife, who shone in London society, did not go with him upon this last journey, but travelled day and night to reach him when word came to her and to his brother John, who was a physician, that he had again been struck with palsy and was dying. That stroke of palsy followed immediately upon the finishing of the book now in the reader's hand. Davy lived to see again his wife and brother, rallied enough to leave Rome with them, and had got as far as Geneva on the 28th of May, 1829. He died in the next night.

H. M.

[Henry Morley: editor]
A NOTE,

As is stated in the Preface which follows, this work was composed during a period of bodily indisposition;--it was concluded at the very moment of the invasion of the Author's last illness. Had his life been prolonged, it is probable that some additions and some changes would have been made. The editor does not consider himself warranted to do more than give to the world a faithful copy, making only a few omissions and a few verbal alterations. The characters of the persons of the dialogue were intended to be ideal, at least in great part such they should be considered by the reader; and, it is to be hoped, that the incidents introduced, as well as the persons, will be viewed only as subordinate and subservient to the sentiments and doctrines. The dedication, it may be specially noticed, is the author's own, and in the very words dictated by him, at a time when he had lost the power of writing except with extreme difficulty, owing to the paralytic attack, although he retained in a very remarkable manner all his mental faculties unimpaired and unclouded.

JOHN DAVY.
London,
January 6th, 1830.
AUTHOR'S PREFACE.

[Preface by Humphry Davy.]

Salmonia was written during the time of a partial recovery from a long and dangerous illness. The present work was composed immediately after, under the same unfavourable and painful circumstances, and at a period when the constitution of the Author suffered from new attacks. He has derived some pleasure and some consolation, when most other sources of consolation and pleasure were closed to him, from this exercise of his mind; and he ventures to hope that these hours of sickness may be not altogether unprofitable to persons in perfect health.

_Rome_,
_February_ 21, 1829.

THE FIRST DIALOGUE.

THE VISION.

I passed the autumn and the early winter of the years 18-- and 18-- at Rome. The society was, as is usual in that metropolis of the old Christian world, numerous and diversified. In it there were found many intellectual foreigners and amongst them some distinguished Britons, who had a higher object in making this city their residence than mere idleness or vague curiosity. Amongst these my countrymen, there were two gentlemen with whom I formed a particular intimacy and who were my frequent companions in the visits which I made to the monuments of the grandeur of the old Romans and to the masterpieces of ancient and modern art. One of them I shall call Ambrosio: he was a man of highly cultivated taste, great classical erudition, and minute historical knowledge. In religion he was of the Roman Catholic persuasion; but a Catholic of the most liberal school, who in another age might have been
secretary to Ganganelli. His views upon the subjects of politics and religion were enlarged; but his leaning was rather to the power of a single magistrate than to the authority of a democracy or even of an oligarchy. The other friend, whom I shall call Onuphrio, was a man of a very different character. Belonging to the English aristocracy, he had some of the prejudices usually attached to birth and rank; but his manners were gentle, his temper good, and his disposition amiable. Having been partly educated at a northern university in Britain, he had adopted views in religion which went even beyond toleration and which might be regarded as entering the verge of scepticism. For a patrician he was very liberal in his political views. His imagination was poetical and discursive, his taste good and his tact extremely fine, so exquisite, indeed, that it sometimes approached to morbid sensibility, and disgusted him with slight defects and made him keenly sensible of small perfections to which common minds would have been indifferent.

In the beginning of October on a very fine afternoon I drove with these two friends to the Colosseum, a monument which, for the hundredth time even, I had viewed with a new admiration; my friends partook of my sentiments. I shall give the conversation which occurred there in their own words. Onuphrio* said, "How impressive are those ruins!--what a character do they give us of the ancient Romans, what magnificence of design, what grandeur of execution! Had we not historical documents to inform us of the period when this structure was raised and of the

*the aristocratic Englishman
purposes for which it was designed, it might be imagined the work of a
race of giants, a Council Chamber for those Titans fabled to have warred
against the gods of the pagan mythology. The size of the masses of
travertine of which it is composed is in harmony with the immense
magnitude of the building. It is hardly to be wondered at that a people
which constructed such works for their daily sports, for their usual
amusements, should have possessed strength, enduring energy, and
perseverance sufficient to enable them to conquer the world. They appear
always to have formed their plans and made their combinations as if their
power were beyond the reach of chance, independent of the influence of
time, and founded for unlimited duration--for eternity!"

*Ambrosio* took up the discourse of Onuphrio, and said, "The aspect of this *[the liberal Catholic]

wonderful heap of ruins is so picturesque that it is impossible to regret
its decay; and at this season of the year the colours of the vegetation
are in harmony with those of the falling ruins, and how perfectly the
whole landscape is in tone! The remains of the palace of the Caesars and
of the golden halls of Nero appear in the distance, their gray and
tottering turrets and their moss-stained arches reposing, as it were,
on the decaying vegetation: and there is nothing that marks the
existence of life except the few pious devotees, who wander from station
to station in the arena below, kneeling before the cross, and
demonstrating the triumph of a religion, which received in this very spot
in the early period of its existence one of its most severe persecutions,
and which, nevertheless, has preserved what remains of that building,
where attempts were made to stifle it almost at its birth; for, without
the influence of Christianity, these majestic ruins would have been
dispersed or levelled to the dust. Plundered of their lead and iron by
the barbarians, Goths, and Vandals, and robbed even of their stones by
Roman princes, the Barberini, they owe what remains of their relics to
the sanctifying influence of that faith which has preserved for the world
all that was worth preserving, not merely arts and literature but
likewise that which constitutes the progressive nature of intellect and
the institutions which afford to us happiness in this world and hopes of
a blessed immortality in the next. And, being of the faith of Rome, I
may say, that the preservation of this pile by the sanctifying effect of
a few crosses planted round it, is almost a miraculous event. And what a
contrast the present application of this building, connected with holy
feelings and exalted hopes, is to that of the ancient one, when it was
used for exhibiting to the Roman people the destruction of men by wild
beasts, or of men, more savage than wild beasts, by each other, to
gratify a horrible appetite for cruelty, founded upon a still more
detestable lust, that of universal domination! And who would have
supposed, in the time of Titus, that a faith, despised in its
insignificant origin, and persecuted from the supposed obscurity of its
founder and its principles, should have reared a dome to the memory of
one of its humblest teachers, more glorious than was ever framed for
Jupiter or Apollo in the ancient world, and have preserved even the ruins
of the temples of the pagan deities, and have burst forth in splendour and majesty, consecrating truth amidst the shrines of error, employing the idols of the Roman superstition for the most holy purposes and rising a bright and constant light amidst the dark and starless night which followed the destruction of the Roman empire!"

Onuphrio* now resumed the discourse. He said, "I have not the same *[the aristocratic Englishman] exalted views on the subject which our friend Ambrosio has so eloquently expressed. Some little of the perfect state in which these ruins exist may have been owing to causes which he has described; but these causes have only lately begun to operate, and the mischief was done before Christianity was established at Rome. Feeling differently on these subjects, I admire this venerable ruin rather as a record of the destruction of the power of the greatest people that ever existed, than as a proof of the triumph of Christianity; and I am carried forward in melancholy anticipation to the period when even the magnificent dome of St. Peter's will be in a similar state to that in which the Coloseum now is, and when its ruins may be preserved by the sanctifying influence of some new and unknown faith; when, perhaps, the statue of Jupiter, which at present receives the kiss of the devotee, as the image of St. Peter, may be employed for another holy use, as the personification of a future saint or divinity; and when the monuments of the papal magnificence shall be mixed with the same dust as that which now covers the tombs of the
Caesars. Such, I am sorry to say, is the general history of all the works and institutions belonging to humanity. They rise, flourish, and then decay and fall; and the period of their decline is generally proportional to that of their elevation. In ancient Thebes or Memphis the peculiar genius of the people has left us monuments from which we can judge of their arts, though we cannot understand the nature of their superstitions. Of Babylon and of Troy the remains are almost extinct; and what we know of these famous cities is almost entirely derived from literary records. Ancient Greece and Rome we view in the few remains of their monuments; and the time will arrive when modern Rome shall be what ancient Rome now is; and ancient Rome and Athens will be what Tyre or Carthage now are, known only by coloured dust in the desert, or coloured sand, containing the fragments of bricks or glass, washed up by the wave of a stormy sea. I might pursue these thoughts still further, and show that the wood of the cross, or the bronze of the statue, decay as quickly as if they had not been sanctified; and I think I could show that their influence is owing to the imagination, which, when infinite time is considered, or the course of ages even, is null and its effect imperceptible; and similar results occur, whether the faith be that of Osiris, of Jupiter, of Jehovah, or of Jesus.”

To this Ambrosio* replied, his countenance and the tones of his voice expressing some emotion: "I do not think, Onuphrio, that you consider this question with your usual sagacity or acuteness; indeed, I never hear you on the subject of religion without pain and without a feeling of regret that you have not applied your powerful understanding to a more minute and correct examination of the evidences of revealed religion. You would then, I think, have seen, in the origin, progress, elevation, decline and fall of the empires of antiquity, proofs that they were intended for a definite end in the scheme of human redemption; you would
have found prophecies which have been amply verified; and the foundation
or the ruin of a kingdom, which appears in civil history so great an
event, in the history of man, in his religious institutions, as
comparatively of small moment; you would have found the establishment of
the worship of one God amongst a despised and contemned people as the
most important circumstance in the history of the early world; you would
have found the Christian dispensation naturally arising out of the
Jewish, and the doctrines of the pagan nations all preparatory to the
triumph and final establishment of a creed fitted for the most
enlightened state of the human mind and equally adapted to every climate
and every people."

To this animated appeal of Ambrosio, Onuphrio replied in the most
tranquil manner and with the air of an unmoved philosopher:--"You mistake
me, Ambrosio, if you consider me as hostile to Christianity. I am not of
the school of the French Encyclopaedists,* or of the English infidels. I *[Diderot et al.]
consider religion as essential to man, and belonging to the human mind in
the same manner as instincts belong to the brute creation, a light, if
you please of revelation to guide him through the darkness of this life,
and to keep alive his undying hope of immortality: but pardon me if I
consider this instinct as equally useful in all its different forms, and
still a divine light through whatever medium or cloud of human passion or
prejudice it passes. I reverence it in the followers of Brahmah, in the
disciple of Mahomet, and I wonder at in all the variety of forms it
adopts in the Christian world. You must not be angry with me that I do
not allow infallibility to your Church, having been myself brought up by
Protestant parents, who were rigidly attached to the doctrines of
Calvin."

I saw Ambrosio's countenance kindle at Onuphrio's explanation of his
opinions, and he appeared to be meditating an angry reply. I endeavoured
to change the conversation to the state of the Colosaeum, with which it
had begun. "These ruins," I said, "as you have both observed, are highly
impressive; yet when I saw them six years ago they had a stronger effect
on my imagination; whether it was the charm of novelty, or that my mind
was fresher, or that the circumstances under which I saw them were
peculiar, I know not, but probably all these causes operated in affecting
my mind. It was a still and beautiful evening in the end of May; the
last sunbeams were dying away in the western sky and the first moonbeams
shining in the eastern; the bright orange tints lighted up the ruins and
as it were kindled the snows that still remained on the distant
Apennines, which were visible from the highest accessible part of the
amphitheatre. In this glow of colouring, the green of advanced spring
softened the grey and yellow tints of the decaying stones, and as the
lights gradually became fainter, the masses appeared grander and more
gigantic; and when the twilight had entirely disappeared, the contrast of
light and shade in the beams of the full moon and beneath a sky of the
brightest sapphire, but so highly illuminated that only Jupiter and a few
stars of the first magnitude were visible, gave a solemnity and magnificence to the scene which awakened the highest degree of that emotion which is so properly termed the sublime. The beauty and the permanency of the heavens and the principle of conservation belonging to the system of the universe, the works of the Eternal and Divine Architect, were finely opposed to the perishing and degraded works of man in his most active and powerful state. And at this moment so humble appeared to me the condition of the most exalted beings belonging to the earth, so feeble their combinations, so minute the point of space, and so limited the period of time in which they act, that I could hardly avoid comparing the generations of man, and the effects of his genius and power, to the swarms of luceoli or fire-flies which were dancing around me and that appeared flitting and sparkling amidst the gloom and darkness of the ruins, but which were no longer visible when they rose above the horizon, their feeble light being lost and utterly obscured in the brightness of the moonbeams in the heavens."

Onuphrio said: "I am not sorry that you have changed the conversation. You have given us the history of a most interesting recollection and well expressed a solemn though humiliating feeling. In such moments and among such scenes it is impossible not to be struck with the nothingness of human glory and the transiency of human works. This, one of the greatest monuments on the face of the earth, was raised by a people, then its masters, only seventeen centuries ago; in a few ages more it will be but as dust, and of all the testimonials of the vanity or power of man, whether raised to immortalise his name, or to contain his decaying bones without a name, no one is known to have a duration beyond what is measured by the existence of a hundred generations; and it is only to multiply centuple for instance the period of time, and the memorials of a village and the monuments of a country churchyard may be compared with those of an empire and the remains of the world."

Ambrosio, to whom the conversation seemed disagreeable, put us in mind of an engagement we had made to spend the evening at the conversazione of a celebrated lady, and proposed to call the carriage. The reflections which the conversation and the scene had left in my mind little disposed me for general society. I requested them to keep their engagement, and said I was resolved to spend an hour amidst the solitude of the ruins, and desired them to send back the carriage for me. They left me, expressing a hope that my poetical or melancholy fancy might not be the occasion of a cold, and wished me the company of some of the spectres of the ancient Romans.
When I was left alone, I seated myself in the moonshine, on one of the steps leading to the seats supposed to have been occupied by the patricians in the Colosseum at the time of the public games. The train of ideas in which I had indulged before my friends left me continued to flow with a vividness and force increased by the stillness and solitude of the scene; and the full moon has always a peculiar effect on these moods of feeling in my mind, giving to them a wildness and a kind of indefinite sensation, such as I suppose belong at all times to the true poetical temperament. It must be so, I thought to myself; no new city will rise again out of the double ruins of this; no new empire will be founded upon these colossal remains of that of the old Romans. The world, like the individual, flourishes in youth, rises to strength in manhood, falls into decay in age; and the ruins of an empire are like the decrepit frame of an individual, except that they have some tints of beauty which nature bestows upon them. The sun of civilisation arose in the East, advanced towards the West, and is now at its meridian; in a few centuries more it will probably be seen sinking below the horizon even in the new world, and there will be left darkness only where there is a bright light, deserts of sand where there were populous cities, and stagnant morasses where the green meadow or the bright cornfield once appeared. I called up images of this kind in my imagination. "Time," I said, "which purifies, and as it were sanctifies the mind, destroys and brings into utter decay the body; and, even in nature, its influence seems always degrading. She is represented by the poets as eternal in her youth, but amongst these ruins she appears to me eternal in her age, and here no traces of renovation appear in the ancient of days." I had scarcely concluded this ideal sentence when my reverie became deeper, the
ruins surrounding me appeared to vanish from my sight, the light of the moon became more intense, and the orb itself seemed to expand in a flood of splendour. At the same time that my visual organs appeared so singularly affected, the most melodious sounds filled my ear, softer yet at the same time deeper and fuller than I had ever heard in the most harmonious and perfect concert. It appeared to me that I had entered a new state of existence, and I was so perfectly lost in the new kind of sensation which I experienced that I had no recollections and no perceptions of identity. On a sudden the music ceased, but the brilliant light still continued to surround me, and I heard a low but extremely distinct and sweet voice, which appeared to issue from the centre of it. The sounds were at first musical like those of a harp, but they soon became articulate, as if a prelude to some piece of sublime poetical composition. "You, like all your brethren," said the voice, "are entirely ignorant of everything belonging to yourselves, the world you inhabit, your future destinies, and the scheme of the universe; and yet you have the folly to believe you are acquainted with the past, the present, and the future. I am an intelligence somewhat superior to you, though there are millions of beings as much above me in power and in intellect as man is above the meanest and weakest reptile that crawls beneath his feet; yet something I can teach you: yield your mind wholly to the influence which I shall exert upon it, and you shall be undeceived in your views of the history of the world, and of the system you inhabit." At this moment the bright light disappeared, the sweet and harmonious voice, which was the only proof of the presence of a superior intelligence, ceased; I was in utter darkness and silence, and seemed to myself to be carried rapidly upon a stream of air, without any other sensation than that of moving quickly through space. Whilst I was still in motion, a dim and hazy light, which seemed like that of twilight in a rainy morning, broke upon my sight, and gradually a country displayed itself to my view covered with forests and marshes. I saw wild animals grazing in large savannahs, and carnivorous beasts, such as lions and tigers, occasionally disturbing and destroying them; I saw naked savages feeding upon wild fruits, or devouring shell-fish, or fighting with clubs for the remains of a whale which had been thrown upon the shore. I observed that they had no habitations, that they concealed themselves in caves, or under the shelter of palm trees, and that the only delicious food which nature seemed to have given to them was the date and the cocoa-nut, and these were in very small quantities and the object of contention. I saw that some few of these wretched human beings that inhabited the wide waste before my eyes, had weapons pointed with flint or fish-bone, which they made use of for destroying birds, quadrupeds, or fishes, that they fed upon raw; but their greatest delicacy appeared to be a maggot or worm, which they sought for with great perseverance in the buds of the palm. When I had cast my eyes on the varied features of this melancholy scene, which was now lighted by a rising sun, I heard again the same voice which had astonished me in the Colosseum, and which said,—"See the birth of Time! Look at man in his newly created state,
full of youth and vigour. Do you see aught in this state to admire or envy?" As the last words fell on my ear, I was again, as before, rapidly put in motion, and I seemed again resistless to be hurried upon a stream of air, and again in perfect darkness. In a moment, an indistinct light again appeared before my eyes and a country opened upon my view which appeared partly wild and partly cultivated; there were fewer woods and morasses than in the scene which I had just before seen; I beheld men who were covered with the skins of animals, and who were driving cattle to enclosed pastures; I saw others who were reaping and collecting corn, others who were making it into bread; I saw cottages furnished with many of the conveniences of life, and a people in that state of agricultural and pastoral improvement which has been imagined by the poets as belonging to the golden age. The same voice, which I shall call that of the Genius,* said, "Look at these groups of men who are escaped from the state of infancy: they owe their improvement to a few superior minds still amongst them. That aged man whom you see with a crowd around him taught them to build cottages; from that other they learnt to domesticate cattle; from others to collect and sow corn and seeds of fruit. And these arts will never be lost; another generation will see them more perfect; the houses, in a century more, will be larger and more convenient; the flocks of cattle more numerous; the corn-fields more extensive; the morasses will be drained, the number of fruit-trees increased. You shall be shown other visions of the passages of time, but as you are carried along the stream which flows from the period of creation to the present moment, I shall only arrest your transit to make you observe some circumstances which will demonstrate the truths I wish you to know, and which will explain to you the little it is permitted me to understand of the scheme of the universe." I again found myself in darkness and in motion, and I was again arrested by the opening of a new scene upon my eyes. I shall describe this scene and the others in the succession in which they appeared before me, and the observations by which they were accompanied in the voice of the wonderful being who appeared as my intellectual guide. In the scene which followed that of the agricultural or pastoral people, I saw a great extent of cultivated plains, large cities on the sea-shore, palaces--forums and temples ornamenting them; men associated in groups, mounted on horses, and performing military exercises; galleys moved by oars on the ocean; roads intersecting the country covered with travellers and containing carriages moved by men or horses. The Genius now said, "You see the early state of civilisation of man; the cottages of the last race you beheld have become improved into stately dwellings, palaces, and temples, in which use is combined with ornament. The few men to whom, as I said before, the foundations of these improvements were owing, have had divine honours paid to their memory. But look at the instruments belonging to this generation, and you will find that they are only of brass. You see men who are talking to crowds around them, and others who are apparently amusing listening groups by a kind of song or recitation; these are the earliest bards and orators; but all their signs of thought are oral, for *...like a guardian spirit.
written language does not yet exist." The next scene which appeared was one of varied business and imagery. I saw a man, who bore in his hands the same instruments as our modern smiths, presenting a vase, which appeared to be made of iron, amidst the acclamations of an assembled multitude engaged in triumphal procession before the altars dignified by the name of Apollo at Delphi; and I saw in the same place men who carried rolls of papyrus in their hands and wrote upon them with reeds containing ink made from the soot of wood mixed with a solution of glue. "See," the Genius said, "an immense change produced in the condition of society by the two arts of which you here see the origin; the one, that of rendering iron malleable, which is owing to a single individual, an obscure Greek; the other, that of making thought permanent in written characters, an art which has gradually arisen from the hieroglyphics which you may observe on yonder pyramids. You will now see human life more replete with power and activity." Again, another scene broke upon my vision. I saw the bronze instruments, which had belonged to the former state of society, thrown away; malleable iron converted into hard steel, this steel applied to a thousand purposes of civilised life; I saw bands of men who made use of it for defensive armour and for offensive weapons; I saw these iron-clad men, in small numbers subduing thousands of savages, and establishing amongst them their arts and institutions; I saw a few men on the eastern shores of Europe, resisting, with the same materials, the united forces of Asia; I saw a chosen band die in defence of their country, destroyed by an army a thousand times as numerous; and I saw this same army, in its turn, caused to disappear, and destroyed or driven from the shores of Europe by the brethren of that band of martyred patriots; I saw bodies of these men traversing the sea, founding colonies, building cities, and wherever they established themselves, carrying with them their peculiar arts. Towns and temples arose containing schools, and libraries filled with the rolls of the papyrus. The same steel, such a tremendous instrument of power in the hands of the warrior, I saw applied, by the genius of the artist, to strike forms even more perfect than those of life out of the rude marble; and I saw the walls of the palaces and temples covered with pictures, in which historical events were portrayed with the truth of nature and the poetry of mind. The voice now awakened my attention by saying, "You have now before you the vision of that state of society which is an object of admiration to the youth of modern times, and the recollections of which, and the precepts founded on these recollections, constitute an important part of your education. Your maxims of war and policy, your taste in letters and the arts, are derived from models left by that people, or by their immediate imitators, whom you shall now see." I opened my eyes, and recognised the very spot in which I was sitting when the vision commenced. I was on the top of an arcade under a silken canopy, looking down upon the tens of thousands of people who were crowded in the seats of the Colosseum, ornamented with all the spoils that the wealth of a world can give; I saw in the arena below animals of the most extraordinary kind, and which have rarely been seen living in modern
Europe—the giraffe, the zebra, the rhinoceros, and the ostrich from the deserts of Africa beyond the Niger, the hippopotamus from the Upper Nile, and the royal tiger and the gnu from the banks of the Ganges. Looking over Rome, which, in its majesty of palaces and temples, and in its colossal aqueducts bringing water even from the snows of the distant Apennines, seemed more like the creation of a supernatural power than the work of human hands; looking over Rome to the distant landscape, I saw the whole face, as it were, of the ancient world adorned with miniature images of this splendid metropolis. Where the Roman conquered, there he civilised; where he carried his arms, there he fixed likewise his household gods; and from the deserts of Arabia to the mountains of Caledonia there appeared but one people, having the same arts, language, and letters—all of Grecian origin. I looked again, and saw an entire change in the brilliant aspect of this Roman world—the people of conquerors and heroes was no longer visible; the cities were filled with an idle and luxurious population; those farms which had been cultivated by warriors, who left the plough to take the command of armies, were now in the hands of slaves; and the militia of freemen were supplanted by bands of mercenaries, who sold the empire to the highest bidder. I saw immense masses of warriors collecting in the north and east, carrying with them no other proofs of cultivation but their horses and steel arms; I saw these savages everywhere attacking this mighty empire, plundering cities, destroying the monuments of arts and literature, and, like wild beasts devouring a noble animal, tearing into pieces and destroying the Roman power. Ruin, desolation, and darkness were before me, and I closed my eyes to avoid the melancholy scene. "See," said the Genius, "the melancholy termination of a power believed by its founders invincible, and intended to be eternal. But you will find, though the glory and greatness belonging to its military genius have passed away, yet those belonging to the arts and institutions, by which it adorned and dignified life, will again arise in another state of society." I opened my eyes again, and I saw Italy recovering from her desolation—towns arising with governments almost upon the model of ancient Athens and Rome, and these different small states rivals in arts and arms; I saw the remains of libraries, which had been preserved in monasteries and churches by a holy influence which even the Goth and Vandal respected, again opened to the people; I saw Rome rising from her ashes, the fragments of statues found amidst the ruins of her palaces and imperial villas becoming the models for the regeneration of art; I saw magnificent temples raised in this city become the metropolis of a new and Christian world, and ornamented with the most brilliant masterpieces of the arts of design; I saw a Tuscan city, as it were, contending with Rome for pre-eminence in the productions of genius, and the spirit awakened in Italy spreading its influence from the South to the North. "Now," the Genius said, "society has taken its modern and permanent aspect. Consider for a moment its relations to letters and to arms as contrasted with those of the ancient world." I looked, and saw, that in the place of the rolls of papyrus, libraries were now filled with books. "Behold," the Genius said, "the
printing-press; by the invention of Faust the productions of genius are, as it were, made imperishable, capable of indefinite multiplication, and rendered an unalienable heritage of the human mind. By this art, apparently so humble, the progress of society is secured, and man is spared the humiliation of witnessing again scenes like those which followed the destruction of the Roman Empire. Now look to the warriors of modern times; you see the spear, the javelin, the shield, and the cuirass are changed for the musket and the light artillery. The German monk who discovered gunpowder did not meanly affect the destinies of mankind; wars are become less bloody by becoming less personal; mere brutal strength is rendered of comparatively little avail; all the resources of civilisation are required to maintain and move a large army; wealth, ingenuity, and perseverance become the principal elements of success; civilised man is rendered in consequence infinitely superior to the savage, and gunpowder gives permanence to his triumph, and secures the cultivated nations from ever being again overrun by the inroads of millions of barbarians. There is so much identity of feature in the character of the two or three centuries that are just passed, that I wish you only to take a very transient view of the political and military events belonging to them. You will find attempts made by the chiefs of certain great nations to acquire predominance and empire; you will see those attempts, after being partially successful, resisted by other nations, and the balance of power, apparently for a moment broken, again restored. Amongst the rival nations that may be considered as forming the republic of modern Europe, you will see one pre-eminent for her maritime strength and colonial and commercial enterprise, and you will find she retains her superiority only because it is favourable to the liberty of mankind. But you must not yet suffer the vision of modern Europe to pass from your eyes without viewing some other results of the efforts of men of genius, which, like those of gunpowder and the press, illustrate the times to which they belong, and form brilliant epochs in the history of the world. If you look back into the schools of regenerated Italy, you will see in them the works of the Greek masters of philosophy; and if you attend to the science taught in them, you will find it vague, obscure, and full of erroneous notions. You will find in this early period of improvement branches of philosophy even applied to purposes of delusion; the most sublime of the departments of human knowledge--astronomy--abused by impostors, who from the aspect of the planetary world pretended to predict the fortunes and destinies of individuals. You will see in the laboratories alchemists searching for a universal medicine, an elixir of life, and for the philosopher's stone, or a method of converting all metals into gold; but unexpected and useful discoveries you will find, even in this age, arise amidst the clouds of deception and the smoke of the furnace. Delusion and error vanish and pass away, and truths seized upon by a few superior men become permanent, and the property of an enlightening world. Amongst the personages who belong to this early period, there are two whom I must request you to notice--one an Englishman, who pointed out the paths to the discovery of
scientific truths, and the other a Tuscan, who afforded the happiest
eperimental illustrations of the speculative views of his brother in
science. You will see academies formed a century later in Italy, France,
and Britain, in which the sciences are enlarged by new and varied
experiments, and the true system of the universe developed by an
illustrious Englishman taught and explained. The practical results of
the progress of physics, chemistry, and mechanics, are of the most
marvellous kind, and to make them all distinct would require a comparison
of ancient and modern states: ships that were moved by human labour in
the ancient world are transported by the winds; and a piece of steel,
touched by the magnet, points to the mariner his unerring course from the
old to the new world; and by the exertions of one man of genius, aided by
the resources of chemistry, a power, which by the old philosophers could
hardly have been imagined, has been generated and applied to almost all
the machinery of active life; the steam-engine performs not only the
labour of horses, but of man, by combinations which appear almost
possessed of intelligence; wagons are moved by it, constructions made,
vessels caused to perform voyages in opposition to wind and tide, and a
power placed in human hands which seems almost unlimited. To these novel
and still extending improvements may be added others, which, though of a
secondary kind, yet materially affect the comforts of life, the
collecting from fossil materials the elements of combustion, and applying
them so as to illuminate, by a single operation, houses, streets, and
even cities. If you look to the results of chemical arts you will find
new substances of the most extraordinary nature applied to various novel
purposes; you will find a few experiments in electricity leading to the
marvellous result of disarming the thunder-cloud of its terrors, and you
will see new instruments created by human ingenuity, possessing the same
powers as the electrical organs of living animals. To whatever part of
the vision of modern times you cast your eyes you will find marks of
superiority and improvement, and I wish to impress upon you the
conviction that the results of intellectual labour or of scientific
genius are permanent and incapable of being lost. Monarchs change their
plans, governments their objects, a fleet or an army effect their purpose
and then pass away; but a piece of steel touched by the magnet preserves
its character for ever, and secures to man the dominion of the trackless
ocean. A new period of society may send armies from the shores of the
Baltic to those of the Euxine, and the empire of the followers of Mahomet
may be broken in pieces by a northern people, and the dominion of the
Britons in Asia may share the fate of that of Tamerlane or Zengiskhan;
but the steam-boat which ascends the Delaware or the St. Lawrence will be
continued to be used, and will carry the civilisation of an improved
people into the deserts of North America and into the wilds of Canada. In
the common history of the world, as compiled by authors in general,
almost all the great changes of nations are confounded with changes in
their dynasties, and events are usually referred either to sovereigns,
chiefs, heroes, or their armies, which do, in fact, originate from
entirely different causes, either of an intellectual or moral nature.
Governments depend far more than is generally supposed upon the opinion of the people and the spirit of the age and nation. It sometimes happens that a gigantic mind possesses supreme power and rises superior to the age in which he is born, such was Alfred in England and Peter in Russia, but such instances are very rare; and, in general, it is neither amongst sovereigns nor the higher classes of society that the great improvers or benefactors of mankind are to be found. The works of the most illustrious names were little valued at the times when they were produced, and their authors either despised or neglected; and great, indeed, must have been the pure and abstract pleasure resulting from the exertion of intellectual superiority and the discovery of truth and the bestowing benefits and blessings upon society, which induced men to sacrifice all their common enjoyments and all their privileges as citizens to these exertions. Anaxagoras, Archimedes, Roger Bacon, Galileo Galilei, in their deaths or their imprisonments, offer instances of this kind, and nothing can be more striking than what appears to have been the ingratitude of men towards their greatest benefactors; but hereafter, when you understand more of the scheme of the universe, you will see the cause and the effect of this, and you will find the whole system governed by principles of immutable justice. I have said that in the progress of society all great and real improvements are perpetuated; the same corn which four thousand years ago was raised from an improved grass by an inventor worshipped for two thousand years in the ancient world under the name of Ceres, still forms the principal food of mankind; and the potato, perhaps the greatest benefit that the Old has derived from the New World, is spreading over Europe, and will continue to nourish an extensive population when the name of the race by whom it was first cultivated in South America is forgotten.

"I will now call your attention to some remarkable laws belonging to the history of society, and from the consideration of which you will be able gradually to develop the higher and more exalted principles of being. There appears nothing more accidental than the sex of an infant, yet take any great city or any province and you will find that the relations of males and females are unalterable. Again, a part of the pure air of the atmosphere is continually consumed in combustion and respiration; living vegetables emit this principle during their growth; nothing appears more accidental than the proportion of vegetable to animal life on the surface of the earth, yet they are perfectly equivalent, and the balance of the sexes, like the constitution of the atmosphere, depends upon the principles of an unerring intelligence. You saw in the decline of the Roman empire a people enfeebled by luxury, worn out by excess, overrun by rude warriors; you saw the giants of the North and East mixing with the pigmies of the South and West. An empire was destroyed, but the seeds of moral and physical improvement in the new race were sown; the new population resulting from the alliances of the men of the North with the women, of the South was more vigorous, more full of physical power, and more capable of intellectual exertion than their apparently ill-suited
progenitors; and the moral effects or final causes of the migration of races, the plans of conquest and ambition which have led to revolutions and changes of kingdoms designed by man for such different objects have been the same in their ultimate results—that of improving by mixture the different families of men. An Alaric or an Attila, who marches with legions of barbarians for some gross view of plunder or ambition, is an instrument of divine power to effect a purpose of which he is wholly unconscious—he is carrying a strong race to improve a weak one, and giving energy to a debilitated population; and the deserts he makes in his passage will become in another age cultivated fields, and the solitude he produces will be succeeded by a powerful and healthy population. The results of these events in the moral and political world may be compared to those produced in the vegetable kingdom by the storms and heavy gales so usual at the vernal equinox, the time of the formation of the seed; the pollen or farina of one flower is thrown upon the pistil of another, and the crossing of varieties of plants so essential to the perfection of the vegetable world produced. In man moral causes and physical ones modify each other; the transmission of hereditary qualities to offspring is distinct in the animal world, and in the case of disposition to disease it is sufficiently obvious in the human being. But it is likewise a general principle that powers or habits acquired by cultivation are transmitted to the next generation and exalted or perpetuated; the history of particular races of men affords distinct proofs of this. The Caucasian stock has always preserved its superiority, whilst the negro or flat-nosed race has always been marked for want of intellectual power and capacity for the arts of life. This last race, in fact, has never been cultivated, and a hundred generations, successively improved, would be required to bring it to the state in which the Caucasian race was at the time of the formation of the Greek republics. The principle of the improvement of the character of races by the transmission of hereditary qualities has not escaped the observations of the legislators of the ancient people. By the divine law of Moses the Israelites were enjoined to preserve the purity of their blood, and there was no higher crime than that of forming alliances with the idolatrous nations surrounding them. The Brahmins of Hindostan have established upon the same principle the law of caste, by which certain professions were made hereditary. In this warm climate, where labour is so oppressive, to secure perfection in any series of operations it seems essential to strengthen the powers by the forces acquired from this principle of hereditary descent. It will at first perhaps strike your mind that the mixing or blending of races is in direct opposition to this principle of perfection; but here I must require you to pause and consider the nature of the qualities belonging to the human being. Excess of a particular power, which in itself is a perfection, becomes a defect; the organs of touch may be so refined as to show a diseased sensibility; the ear may become so exquisitely sensitive as to be more susceptible to the uneasiness produced by discords than to the pleasures of harmony. In the nations which have been long civilised the defects are generally
those dependent on excess of sensibility—defects which are cured in the
next generation by the strength and power belonging to a ruder tribe. In
looking back upon the vision of ancient history, you will find that there
never has been an instance of a migration to any extent of any race but
the Caucasian, and they have usually passed from the North to the South.
The negro race has always been driven before these conquerors of the
world; and the red men, the aborigines of America, are constantly
diminishing in number, and it is probable that in a few centuries more
their pure blood will be entirely extinct. In the population of the
world, the great object is evidently to produce organised frames most
capable of the happy and intellectual enjoyment of life—to raise man
above the mere animal state. To perpetuate the advantages of
civilisation, the races most capable of these advantages are preserved
and extended, and no considerable improvement made by an individual is
ever lost to society. You see living forms perpetuated in the series of
ages, and apparently the quantity of life increased. In comparing the
population of the globe as it now is with what it was centuries ago, you
would find it considerably greater; and if the quantity of life is
increased, the quantity of happiness, particularly that resulting from
the exercise of intellectual power, is increased in a still higher ratio.
Now, you will say, 'Is mind generated, is spiritual power created; or are
those results dependent upon the organisation of matter, upon new
perfections given to the machinery upon which thought and motion depend?'
I proclaim to you," said the Genius, raising his voice from its low and
sweet tone to one of ineffable majesty, "neither of these opinions is
true. Listen, whilst I reveal to you the mysteries of spiritual natures,
but I almost fear that with the mortal veil of your senses surrounding
you, these mysteries can never be made perfectly intelligible to your
mind. Spiritual natures are eternal and indivisible, but their modes of
being are as infinitely varied as the forms of matter. They have no
relation to space, and, in their transitions, no dependence upon time, so
that they can pass from one part of the universe to another by laws
entirely independent of their motion. The quantity, or the number of
spiritual essences, like the quantity or number of the atoms of the
material world, are always the same; but their arrangements, like those
of the materials which they are destined to guide or govern, are
infinitely diversified; they are, in fact, parts more or less inferior of
the infinite mind, and in the planetary systems, to one of which this
globe you inhabit belongs, are in a state of probation, continually
aiming at, and generally rising to a higher state of existence. Were it
permitted me to extend your vision to the fates of individual existences,
I could show you the same spirit, which in the form of Socrates developed
the foundations of moral and social virtue, in the Czar Peter possessed
of supreme power and enjoying exalted felicity in improving a rude
people. I could show you the monad or spirit, which with the organs of
Newton displayed an intelligence almost above humanity, now in a higher
and better state of planetary existence drinking intellectual light from
a purer source and approaching nearer to the infinite and divine Mind.
But prepare your mind, and you shall at least catch a glimpse of those
states which the highest intellectual beings that have belonged to the
earth enjoy after death in their transition to now and more exalted
natures." The voice ceased, and I appeared in a dark, deep, and cold
cave, of which the walls of the Colosseum formed the boundary. From
above a bright and rosy light broke into this cave, so that whilst below
all was dark, above all was bright and illuminated with glory. I seemed
possessed at this moment of a new sense, and felt that the light brought
with it a genial warmth; odours like those of the most balmy flowers
appeared to fill the air, and the sweetest sounds of music absorbed my
sense of hearing; my limbs had a new lightness given to them, so that I
seemed to rise from the earth, and gradually mounted into the bright
luminous air, leaving behind me the dark and cold cavern, and the ruins
with which it was strewed. Language is inadequate to describe what I
felt in rising continually upwards through this bright and luminous
atmosphere. I had not, as is generally the case with persons in dreams
of this kind, imagined to myself wings; but I rose gradually and securely
as if I were myself a part of the ascending column of light. By degrees
this luminous atmosphere, which was diffused over the whole of space,
became more circumscribed, and extended only to a limited spot around me.
I saw through it the bright blue sky, the moon and stars, and I passed by
them as if it were in my power to touch them with my hand. I beheld
Jupiter and Saturn as they appear through our best telescopes, but still
more magnified, all the moons and belts of Jupiter being perfectly
distinct, and the double ring of Saturn appearing in that state in which
I have heard Herschel often express a wish he could see it. It seemed as
if I was on the verge of the solar system, and my moving sphere of light
now appeared to pause. I again heard the low and sweet voice of the
Genius, which said, "You are now on the verge of your own system: will
you go further, or return to the earth?" I replied, "I have left an
abode which is damp, dreary, dark and cold; I am now in a place where all
is life, light, and enjoyment; show me, at least before I return, the
glimpse which you promised me of those superior intellectual natures and
the modes of their being and their enjoyments." "There are creatures far
superior," said the Genius, "to any idea your imagination can form in
that part of the system now before you, comprehending Saturn, his moons
and rings. I will carry you to the verge of the immense atmosphere of
this planet. In that space you will see sufficient to wonder at, and far
more than with your present organisation it would be possible for me to
make you understand." I was again in motion, and again almost as
suddenly at rest. I saw below me a surface infinitely diversified,
something like that of an immense glacier covered with large columnar
masses, which appeared as if formed of glass, and from which were
suspended rounded forms of various sizes, which, if they had not been
transparent, I might have supposed to be fruit. From what appeared to me
to be analogous to masses of bright blue ice, streams of the richest tint
of rose-colour or purple burst forth and flowed into basins, forming
lakes or seas of the same colour. Looking through the atmosphere towards
the heavens, I saw brilliant opaque clouds of an azure colour that reflected the light of the sun, which had to my eyes an entirely new aspect, and appeared smaller, as if seen through a dense blue mist. I saw moving on the surface below me immense masses, the forms of which I find it impossible to describe; they had systems for locomotion similar to those of the morse or sea-horse, but I saw with great surprise that they moved from place to place by six extremely thin membranes, which they used as wings. Their colours were varied and beautiful, but principally azure and rose-colour. I saw numerous convolutions of tubes, more analogous to the trunk of the elephant than to anything else I can imagine, occupying what I supposed to be the upper parts of the body, and my feeling of astonishment almost became one of disgust, from the peculiar character of the organs of these singular beings; and it was with a species of terror that I saw one of them mounting upwards, apparently flying towards those opaque clouds which I have before mentioned. "I know what your feelings are," said the Genius; "you want analogies and all the elements of knowledge to comprehend the scene before you. You are in the same state in which a fly would be whose microscopic eye was changed for one similar to that of man; and you are wholly unable to associate what you now see with your former knowledge. But those beings who are before you, and who appear to you almost as imperfect in their functions as the zoophytes of the Polar Sea, to which they are not unlike in their apparent organisation to your eyes, have a sphere of sensibility and intellectual enjoyment far superior to that of the inhabitants of your earth. Each of those tubes which appears like the trunk of an elephant is an organ of peculiar motion or sensation. They have many modes of perception of which you are wholly ignorant, at the same time that their sphere of vision is infinitely more extended than yours, and their organs of touch far more perfect and exquisite. It would be useless for me to attempt to explain their organisation, which you could never understand; but of their intellectual objects of pursuit I may perhaps give you some notion. They have used, modified, and applied the material world in a manner analogous to man; but with far superior powers they have gained superior results. Their atmosphere being much denser than yours and the specific gravity of their planet less, they have been enabled to determine the laws belonging to the solar system with far more accuracy than you can possibly conceive, and any one of those beings could show you what is now the situation and appearance of your moon with a precision that would induce you to believe that he saw it, though his knowledge is merely the result of calculation. Their sources of pleasure are of the highest intellectual nature; with the magnificent spectacle of their own rings and moons revolving round them, with the various combinations required to understand and predict the relations of these wonderful phenomena their minds are in unceasing activity and this activity is a perpetual source of enjoyment. Your view of the solar system is bounded by Uranus, and the laws of this planet form the ultimatum of your mathematical results; but these beings catch a sight of planets belonging to another system and even reason on the
phenomena presented by another sun. Those comets, of which your astronomical history is so imperfect, are to them perfectly familiar, and in their ephemerides their places are shown with as much accurateness as those of Jupiter or Venus in your almanacks; the parallax of the fixed stars nearest them is as well understood as that of their own sun, and they possess a magnificent history of the changes taking place in the heavens and which are governed by laws that it would be vain for me to attempt to give you an idea of. They are acquainted with the revolutions and uses of comets; they understand the system of those meteoric formations of stones which have so much astonished you on earth; and they have histories in which the gradual changes of nebulas in their progress towards systems have been registered, so that they can predict their future changes. And their astronomical records are not like yours which go back only twenty centuries to the time of Hipparchus; they embrace a period a hundred times as long, and their civil history for the same time is as correct as their astronomical one. As I cannot describe to you the organs of these wonderful beings, so neither can I show to you their modes of life; but as their highest pleasures depend upon intellectual pursuits, so you may conclude that those modes of life bear the strictest analogy to that which on the earth you would call exalted virtue. I will tell you however that they have no wars, and that the objects of their ambition are entirely those of intellectual greatness, and that the only passion that they feel in which comparisons with each other can be instituted are those dependent upon a love of glory of the purest kind. If I were to show you the different parts of the surface of this planet, you would see marvellous results of the powers possessed by these highly intellectual beings and of the wonderful manner in which they have applied and modified matter. Those columnar masses, which seem to you as if arising out of a mass of ice below, are results of art, and processes are going on in them connected with the formation and perfection of their food. The brilliant coloured fluids are the results of such operations as on the earth would be performed in your laboratories, or more properly in your refined culinary apparatus, for they are connected with their system of nourishment. Those opaque azure clouds, to which you saw a few minutes ago one of those beings directing his course, are works of art and places in which they move through different regions of their atmosphere and command the temperature and the quantity of light most fitted for their philosophical researches, or most convenient for the purposes of life. On the verge of the visible horizon which we perceive around us, you may see in the east a very dark spot or shadow, in which the light of the sun seems entirely absorbed; this is the border of an immense mass of liquid analogous to your ocean, but unlike your sea it is inhabited by a race of intellectual beings inferior indeed to those belonging to the atmosphere of Saturn, but yet possessed of an extensive range of sensations and endowed with extraordinary power and intelligence. I could transport you to the different planets and show you in each peculiar intellectual beings bearing analogies to each other, but yet all different in power and essence. In Jupiter you would see
creatures similar to those in Saturn, but with different powers of locomotion; in Mars and Venus you would find races of created forms more analogous to those belonging to the earth; but in every part of the planetary system you would find one character peculiar to all intelligent natures, a sense of receiving impressions from light by various organs of vision, and towards this result you cannot but perceive that all the arrangements and motions of the planetary bodies, their satellites and atmospheres are subservient. The spiritual natures therefore that pass from system to system in progression towards power and knowledge preserve at least this one invariable character, and their intellectual life may be said to depend more or less upon the influence of light. As far as my knowledge extends, even in other parts of the universe the more perfect organised systems still possess this source of sensation and enjoyment; but with higher natures, finer and more ethereal kinds of matter are employed in organisation, substances that bear the same analogy to common matter that the refined or most subtle gases do to common solids and fluids. The universe is everywhere full of life, but the modes of this life are infinitely diversified, and yet every form of it must be enjoyed and known by every spiritual nature before the consummation of all things. You have seen the comet moving with its immense train of light through the sky; this likewise has a system supplied with living beings and their existence derives its enjoyment from the diversity of circumstances to which they are exposed; passing as it were through the infinity of space they are continually gratified by the sight of new systems and worlds, and you can imagine the unbounded nature of the circle of their knowledge. My power extends so far as to afford you a glimpse of the nature of a cometary world." I was again in rapid motion, again passing with the utmost velocity through the bright blue sky, and I saw Jupiter and his satellites and Saturn and his ring behind me, and before me the sun, no longer appearing as through a blue mist but in bright and unsupportable splendour, towards which I seemed moving with the utmost velocity; in a limited sphere of vision, in a kind of red hazy light similar to that which first broke in upon me in the Colosseum, I saw moving round me globes which appeared composed of different kinds of flame and of different colours. In some of these globes I recognised figures which put me in mind of the human countenance, but the resemblance was so awful and unnatural that I endeavoured to withdraw my view from them. "You are now," said the Genius, "in a cometary system; those globes of light surrounding you are material forms, such as in one of your systems of religious faith have been attributed to seraphs; they live in that element which to you would be destruction; they communicate by powers which would convert your organised frame into ashes; they are now in the height of their enjoyment, being about to enter into the blaze of the solar atmosphere. These beings so grand, so glorious, with functions to you incomprehensible, once belonged to the earth; their spiritual natures have risen through different stages of planetary life, leaving their dust behind them, carrying with them only their intellectual power. You ask me if they have any knowledge or
reminiscence of their transitions; tell me of your own recollections in
the womb of your mother and I will answer you. It is the law of divine
wisdom that no spirit carries with it into another state and being any
habit or mental qualities except those which may be connected with its
new wants or enjoyments; and knowledge relating to the earth would be no
more useful to these glorified beings than their earthly system of
organised dust, which would be instantly resolved into its ultimate atoms
at such a temperature; even on the earth the butterfly does not transport
with it into the air the organs or the appetites of the crawling worm
from which it sprung. There is, however, one sentiment or passion which
the monad or spiritual essence carries with it into all its stages of
being, and which in these happy and elevated creatures is continually
exalted; the love of knowledge or of intellectual power, which is, in
fact, in its ultimate and most perfect development the love of infinite
wisdom and unbounded power, or the love of God. Even in the imperfect
life that belongs to the earth this passion exists in a considerable
degree, increases even with age, outlives the perfection of the corporeal
faculties, and at the moment of death is felt by the conscious being, and
its future destinies depend upon the manner in which it has been
exercised and exalted. When it has been misapplied and assumed the forms
of vague curiosity, restless ambition, vain glory, pride or oppression,
the being is degraded, it sinks in the scale of existence and still
belongs to the earth or an inferior system, till its errors are corrected
by painful discipline. When, on the contrary, the love of intellectual
power has been exercised on its noblest objects, in discovering and in
contemplating the properties of created forms and in applying them to
useful and benevolent purposes, in developing and admiring the laws of
the eternal Intelligence, the destinies of the sentient principle are of
a nobler kind, it rises to a higher planetary world. From the height to
which you have been lifted I could carry you downwards and show you
intellectual natures even inferior to those belonging to the earth, in
your own moon and in the lower planets, and I could demonstrate to you
the effects of pain or moral evil in assisting in the great plan of the
exaltation of spiritual natures; but I will not destroy the brightness of
your present idea of the scheme of the universe by degrading pictures of
the effects of bad passions and of the manner in which evil is corrected
and destroyed. Your vision must end with the glorious view of the
inhabitants of the cometary worlds; I cannot show you the beings of the
system to which I, myself, belong, that of the sun; your organs would
perish before our brightness, and I am only permitted to be present to
you as a sound or intellectual voice. _We_ are likewise in progression,
but we see and know something of the plans of infinite wisdom; we feel
the personal presence of that supreme Deity which you only imagine; to
you belongs faith, to us knowledge; and our greatest delight results from
the conviction that we are lights kindled by His light and that we belong
to His substance. To obey, to love, to wonder and adore, form our
relations to the infinite Intelligence. We feel His laws are those of
eternal justice and that they govern all things from the most glorious

intellectual natures belonging to the sun and fixed stars to the meanest spark of life animating an atom crawling in the dust of your earth. We know all things begin from and end in His everlasting essence, the cause of causes, the power of powers."

The low and sweet voice ceased; it appeared as if I had fallen suddenly upon the earth, but there was a bright light before me and I heard my name loudly called; the voice was not of my intellectual guide—the genius before me was my servant bearing a flambeau in his hand. He told me he had been searching me in vain amongst the ruins, that the carriage had been waiting for me above an hour, and that he had left a large party of my friends assembled in the Palazzo F---.

Excerpt from THE THIRD DIALOGUE. THE UNKNOWN.

[... The Stranger ...] On these matters I had facts to communicate; on the geological scheme of the early history of the globe there are only analogies to guide us, which different minds may apply and interpret in different ways; but I will not trifle with a long preliminary discourse. Astronomical deductions and actual measures by triangulation prove that the globe is an oblate spheroid flattened at the poles, and this form we know, by strict mathematical demonstrations, is precisely the one which a fluid body revolving round its axis, and become solid at its surface by the slow dissipation of its heat or other causes, would assume. I suppose, therefore, that the globe, in the first state in which the imagination can venture to consider it, was a fluid mass with an immense atmosphere revolving in space round the sun, and that by its cooling a portion of its atmosphere was condensed in water which occupied a part of the surface. In this state no forms of life such as now belong to our system could have inhabited it; and, I suppose, the crystalline rocks (or, as they are called by geologists, the primary rocks), which contain no vestiges of a former order of things, were the results of the first consolidation on its surface. Upon the further cooling the water which more or less had covered it contracted, deposition took place, shell-fish and coral insects of the first creation began their labours, and islands appeared in the midst of the ocean raised from the deep by the productive energies of millions of zoophytes. Those islands became covered with vegetables fitted to bear a high temperature, such as palms and various species of plants similar to those which now exist in the hottest parts of the world; and the submarine rocks or shores of these new formations of land became covered with aquatic vegetables, on which various species of shell-fish and common fishes found their nourishment. The fluids of the globe in cooling deposited a large quantity of the
materials they held in solution, and these deposits agglutinating

together the sand, the immense masses of coral rocks, and some of the

remains of the shells and fishes found round the shores of the primitive

lands, produced the first order of secondary rocks. As the temperature

of the globe became lower, species of the oviparous reptiles were created
to inhabit it; and the turtle, crocodile, and various gigantic animals of
the sauri kind, seem to have haunted the bays and waters of the primitive
lands. But in this state of things there was no order of events similar
to the present; the crust of the globe was exceedingly slender, and the
source of fire a small distance from the surface. In consequence of
contraction in one part of the mass, cavities were opened, which caused
the entrance of water, and immense volcanic explosions took place,
raising one part of the surface, depressing another, producing mountains,
and causing new and extensive depositions from the primitive ocean.

Changes of this kind must have been extremely frequent in the early
epochas of nature, and the only living forms of which the remains are
found in the strata that are the monuments of these changes, are those of
plants, fishes, birds, and oviparous reptiles, which seem most fitted to
exist in such a war of the elements. When these revolutions became less
frequent, and the globe became still more cooled, and the inequalities of
its temperature preserved by the mountain chains, more perfect animals
became its inhabitants, many of which, such as the mammoth, megalonix,
megatherium, and gigantic hyena, are now extinct. At this period the
temperature of the ocean seems to have been not much higher than it is at
present, and the changes produced by occasional eruptions of it have left
no consolidated rocks. Yet one of these eruptions appears to have been
of great extent and some duration, and seems to have been the cause of
those immense quantities of water-worn stones, gravel and sand, which are
usually called diluvian remains; and it is probable that this effect was
connected with the elevation of a new continent in the southern
hemisphere by volcanic fire. When the system of things became so
permanent that the tremendous revolutions depending upon the destruction
of the equilibrium between the heating and cooling agencies were no
longer to be dreaded, the creation of man took place; and since that
period there has been little alteration in the physical circumstances of
our globe. Volcanoes sometimes occasion the rise of new islands,
portions of the old continent are constantly washed by rivers into the
sea; but these changes are too insignificant to affect the destinies of
man, or the nature of the physical circumstances of things. On the
hypothesis that I have adopted, however, it must be remembered that the
present surface of the globe is merely a thin crust surrounding a nucleus
of fluid ignited matter, and consequently we can hardly be considered as
actually safe from the danger of a catastrophe by fire.

End of excerpt.