

James Hutton (1723-1797)

Year	Event	Commentary
1726	Hutton is born on June 3rd in Edinburgh; his father and elder brother die while he is still young.	As with Hume and Smith, Hutton lost his father early in life, a common trait among creative geniuses (see Ochse, 1990, ch. 4, and Simonton, 1999, ch. 4).
17??	Enters the High School in Edinburgh (now the Royal High School)	
17??	Enters Edinburgh University, where he becomes fascinated with chemistry, an interest that develops into a life-long passion.	Edinburgh University had one of the top medical faculties in Europe, which was the foundation for training in what was then called natural philosophy, and what we would now call the natural sciences.
1743	Hutton is apprenticed to a solicitor, but was soon dismissed for amusing himself and his fellow apprentices with chemistry experiments.	This is an episode strikingly similar to the one Hume had as a clerk; although they will work passionately, and even self-destructively, in areas that interest them, creative geniuses frequently have difficulty with mundane tasks in areas outside their primary interests (see Ochse, 1990, chs. 7 & 8).
1744	Hutton returns to the University as a medical student.	
1747	Hutton ventures to Paris to continue his medical studies.	Hutton fits the common pattern of Scottish <i>literati</i> studying and sharing ideas with their French counterparts of the Enlightenment, which raises the question of how the <i>zeitgeist</i> contributes to the intellectual activity of individual creators (see Simonton, 1999, ch. 6).
c. 1749	Hutton moves to Leyden, finishes his medical studies, and writes a thesis — <i>Inaugural Physico-medical dissertation on the blood and the circulation of the microcosm.</i>	Some scholars believe that Hutton's emphasis on cyclical processes was apparent in his thinking even at this early date; the role of mental models, or metaphors, in the creative process has been especially well studied by Howard Gruber and his students.
c. 1750	Hutton travels to London, and then Edinburgh, where he abandons any idea of becoming a doctor; he remains in the "City of Light" for two years, where in partnership with John Davie, a friend from Hutton's days as a student, they establish a chemistry works for the manufacture of salammoniac; their enterprise is successful, and Hutton is now an established business man.	
c. 1752	Hutton takes a turn at farming (his father left him two farms), and he begins by spending two years traveling England, Scotland, and the Low Countries, gathering ideas about innovation in agriculture.	It was also during this time that Hutton began to develop a serious interest in geology, and he studied geological formations with an enthusiasm equal to his study of farming.

1754 Hutton settles at Slighhouses, working and observing the land, developing and testing his ideas about geology and agriculture.

1764 Hutton tours central and northeast Scotland with George Clerk Maxwell; Maxwell is performing his duties as an Estate Commissioner, but Hutton uses the trip as an opportunity to gather more data about his ideas.

c.
1767 Hutton abandons farming and returns to Edinburgh — he has a comfortable income generated by his various business interests.

1770 Hutton builds a house on St. John's Hill, looking directly at Salisbury Crags (the site of "Hutton's Unconformity"), and where he lives with his three sisters until his death 17 years later; during this period he:

1. continues his agricultural studies, doing experiments in his garden;
2. is involved, both financially and professionally, with the building of the Forth and Clyde Canal;
3. socializes with his close friends, including Joseph Black, James Watt, Adam Ferguson, Lord Monboddo, and William Robertson;
4. becomes a founding member of the Royal Society of Edinburgh, which along with the Royal Highland and Agricultural Society, is one of the enduring legacies of the Scottish Enlightenment.



1785 Hutton begins the final phase of his "career"

One of the prerequisites to creative genius is the development of a wide-ranging knowledge base relevant to the creative product; Hume, Smith, and Hutton all read widely, and were keen observers of natural phenomena (see Simonton, 1999, ch. 3, and Ochse, 1990, ch. 8).

There are two things worth noting about this aspect of Hutton's life:

1. Many creative geniuses end up making what Howard Gardner has called "a Faustian bargain", namely they trade the trappings of a normal life, including marriage and raising a family, for the freedoms associated with a life of intellectual pursuit; notice that Hume, Smith, and Hutton all lived notably independent lives, free of marriage — at one point Hume wrote to a friend: "I (have) got a house of my own, and completed a regular family; viz., myself ... a maid, and a cat."
2. Most of the "Northern Lights" were members of literary societies — Hume, Hutton, and Smith were actively involved in Edinburgh societies such as the The Philosophical Society — and these societies are thought by scholars of the Enlightenment to have played a critical role in its intellectual life (but the importance of social gatherings to creative genius is more general than the Enlightenment — see Simonton, 1999, ch. 6, and Ochse, 1990, ch. 3).

Two comments are pertinent to the final

by giving two lectures to the Royal Society on his theory of the earth; his lectures are followed by a flurry of publications, probably related to his declining health, and the accompanying restrictions on his activities:

1. The lectures are first published in 1785 in summary form under the title *Abstract of a Dissertation concerning the System of the Earth, its Duration and Stability*;
2. Next, the theory is published in monograph form in the first volume of the *Transactions of the Royal Society* (1788), under the title, "Theory of the Earth; or an Investigation of the Laws observable in the Composition, Dissolution and Regeneration of Land upon the Globe;"
3. Finally, in response to an attack upon his thesis, an expanded version appeared in 1795 as *Theory of the Earth with proofs and illustrations*.
4. Hutton's *Theory of the Earth* is the only publication that made an impact within a domain of inquiry (in this case, geology), but he had other publications, all written between 1792 and 1794, on topics in natural philosophy, moral philosophy, and agricultural science.

phase of Hutton's life:

1. First, his *Theory of the Earth* is an intellectual achievement of the first magnitude; fortunately for us as students of creative genius, Drs. Donovan and Breyer are here to share with us their professional insights about the *processes* by which Hutton achieved his far-reaching scientific framework (see Part III in Ochse, and chs. 2 & 3 in Simonton).
2. Second, Hutton's pattern of productivity is atypical; the usual pattern shows a peak in the twenty or thirties, depending to a certain extent upon the discipline, with a gradual tailing off towards the later years (this pattern fits Smith and Hume very well; see Simonton, ch. 5) — Hutton, however, shows a peak near the end of his life; it appears that he literally had to age before he could slow down enough to write down his ideas!

1797 Hutton dies, and is buried in Greyfriars Churchyard

Below: Hutton's Map of Glen Tilt

