

VIII. *An Account of a Mountain of Iron Ore, at Taberg in Sweden, in a Letter to Mr. Peter Collinson, F. R. S. By Peter Ascanius, M. D. Translated from the Latin by Mr. Emanuel Mendes de Costa, F. R. S.*

Dear Sir,

Read Feb. 6, 1755. **I** Herewith send you a short but accurate account, and explanation, of the drawing I shewed you, when I had the pleasure to view your collection of minerals, and we discoursed on them. The subject is not unworthy your curiosity and learning, which I have long heard of, but which I now have the pleasure to be acquainted with. This short description I have extracted from the journals of my travels; and it may perhaps be of utility to some future traveller, who may choose to visit the place. Permit me to intitule it,

A Description of the Mountain, which is intirely composd of Iron Ore, at Taberg in Smalandia in Sweden.

The mines of Sweden are justly esteemed superior to the mines of most other countries; and those of iron are the most famed. Among the most curious of the latter is that of Taberg, if, with propriety, it can be called a mine. The Swedish iron is, and has always been, carried to most parts of Europe, and

is preferred to all other iron, for many reasons, as daily experience demonstrates.

Most, but not all, iron ores are attracted by the loadstone: the reason seems to be for those, which are not attracted, that there are no native particles of iron, or that the ore is not sufficiently mineralised in them. The Swedish ores are almost generally attracted by the loadstone; and from that property, not without reason, many skilful mineralists account for the excellency of the Swedish iron. This mountain is situated in a sandy tract of land, of which the sand is extremely fine. Opposite to it is a valley, through which a small river flows; its perpendicular height is above four hundred feet; its circumference half a Swedish league, or three English miles. The whole mountain is one mass of rich iron ore, and even in some parts is mixed with particles of native iron. Wallerius's Mineralogy Species 254, Variety 2d. synonyms it *Ferrum Mineralisatum*. S. *Minera ferri nigricans solida, Magneti amica*; and Linnæus, *Systema Naturæ*, p. 176. No 9. *Ferrum intractabile cinereo-fuscum, punctis nitidis*; in which he contradicts this ore being attracted by the loadstone, though all the specimens I have tried have been always attracted by it. The broken pieces glitter with shining particles, sometimes placed in a scaled, and sometimes in a striated manner. The neighbouring small rocks are of a greyish stone (*saxum purum*). About two hundred years ago (for so long have they work'd on this mountain) they blew up the masses of ore; yet the mountain appears very little diminished, except in the laves or hollow places, which are at the foot of the mountain,,

tain, opposite to the valley. By what has been said, it is to be understood, that the iron ore does not lie in regular strata, as in other places; neither is the ore every-where of equal goodness. There are many perpendicular as also horizontal fissures all over the mountain, which are filled with the same sand, reduced to a kind of fine mud-like paste; and in no part whatever is it impregnated with the least particle of the iron ore of the mountain, but is of the same purity and nature, as it is found on the sea-beaches, from whence often, by its lightness, it is carried by the winds, and covers and destroys whole tracts of land, as it happens in Scania, Seeland, and Holland. In the interior fissures of the mountain, bones of animals, as of stags and other kinds, are frequently found imbedded in the sand. No ore is found beyond the foot of the mountain, nor on the neighbouring plain; so that it appears, as if the mountain had been artificially laid on the sand, for it has no roots, or, like other mountains, its substance does not penetrate the ground. The ore breaks easily, and what is broke from the sides of the mountain readily falls to the foot of it; while in other mines the ore, with great trouble and costs, is dug from the bowels of the earth. The only inconveniency which happens here is, that the sand, which is lodged in very quantities in the fissures, when the ore is blown up, falls with it to the foot of the mountain, and buries or covers it, which they are forced dig away again: on which account they always blow up the ore from the bottom of the mountain upwards, for the greater ease of the miners, and to hinder the heaping of the sand at the bottom. They then carry the

the ore to the neighbouring furnaces, where being roasted, and broken small, they mix it with limestone and powder'd coal, and smelt it into iron.

These particulars, attentively considered, make this mass or mountain of iron ore, not only a very curious production of nature among the Swedish natural rarities, but perhaps among those of the globe. The generation and site of this mountain are extremely difficult to explain: the most probable system seems to have recourse to an inundation; but as the mountain is situated in a high and mountainous tract, and is near forty Swedish leagues distant from the sea, no other inundation but the universal deluge can be brought to account for it. Perhaps it might be conjectured, that, by the violent and rapid motion of waters, this mountain, which before was intirely buried in the sands, was uncovered and left bare. This would indeed be probable, if the whole country about it had been plain; but on the contrary it is a very rugged tract, nor are there in the adjacent parts the least vestiges of the sand being carried or diffipated elsewhere. It therefore to me seems more reasonable to attribute its origin or formation to subterranean causes, which by violent shocks changed the whole face of that region, and left the mountain thus elevated and bare; because we have no examples, to lead us to think (if we draw a conclusion from similar cases) that this mountain became thus mineralized in every part of it, when bare or exposed, as we now find it. This alone is certain, that it was once quite buried in the sands: the other particulars we remain ignorant of. This is more probable, as it appears more conformable to reason than other

luxuriant imaginary systems, which rather force than elucidate, and very little agree with the laws of nature. Who hitherto has ever rightly explained the origin of mountains? We perhaps know some particular causes, but how can we draw from them general conclusions? The bones of animals, which are found in the interior fissures of the mountain, demonstrate it to be formed by a ruinous cause. This suffices not to explain, but only to illustrate, the subject. In the annexed *Plate I.* *A* is the mountain Taberg. *B, B, B,* the heaps of broken ore. *C, C, C,* the sand brought forth from the fissures. *D, D,* the neighbouring stony rock; and *E,* the miners houses. I am,

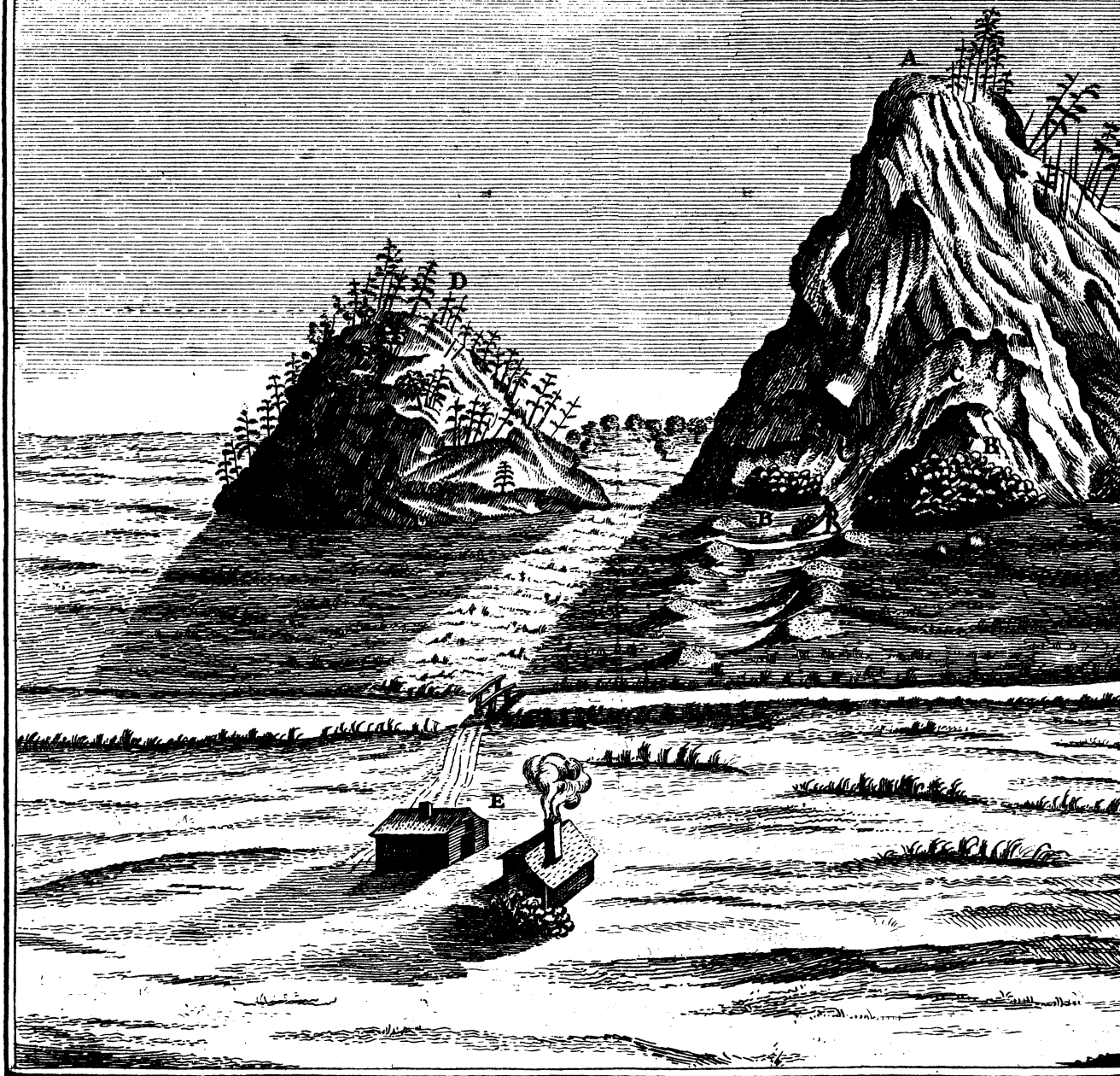
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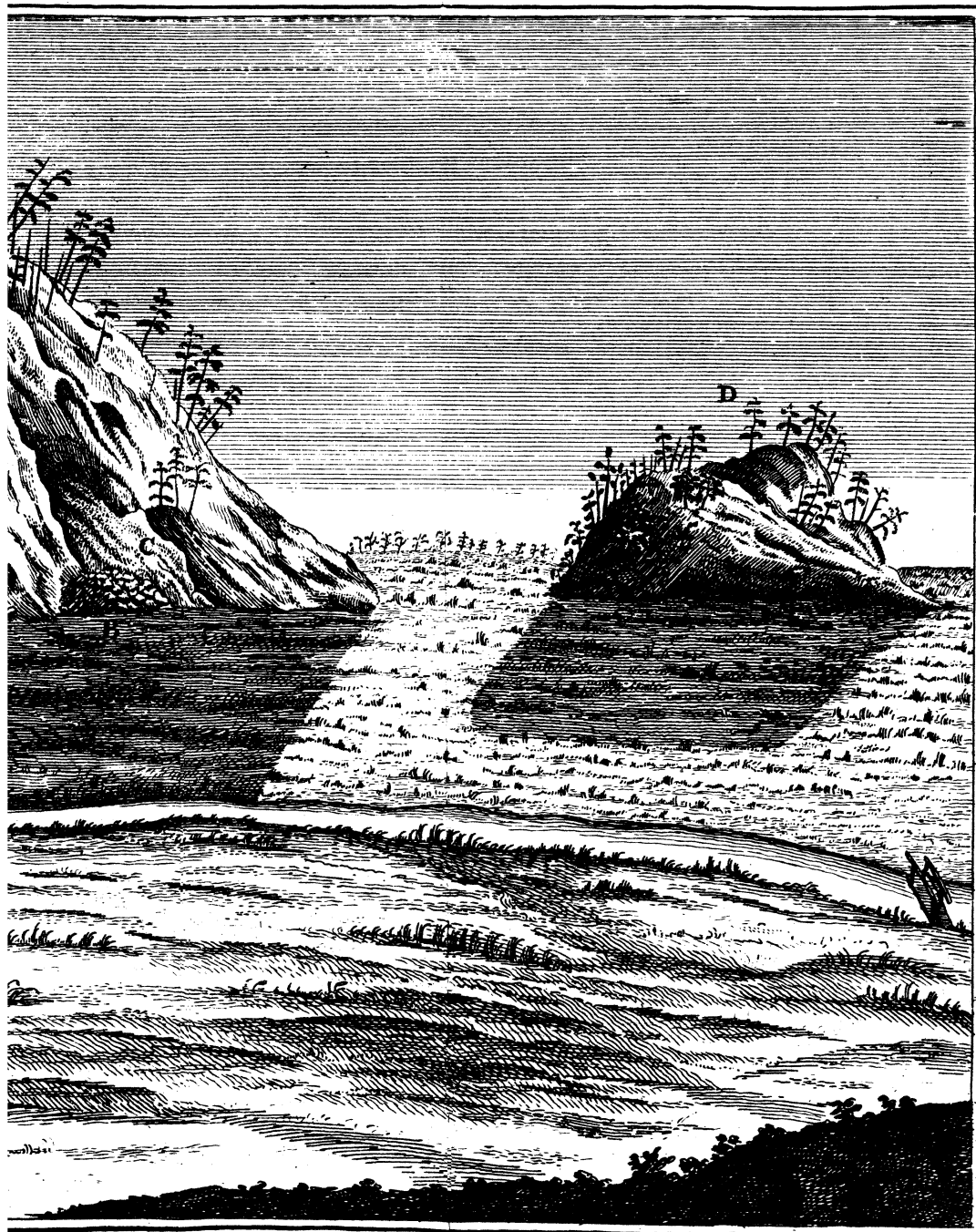
Peter Ascanius.

IX. An Account of an extraordinary Case of a Child. By Mr. Richard Guy, Surgeon.

Read Feb. 13. 1755. **A** Child near seven years of age, the daughter of an eminent tradesman in Bishopsgate-street, having languished, for near twelve months past, of a supposed dropsy, and undergone the most skilful treatment of several eminent physicians unsuccessfully, died in an emaciated state.

By desire of the parent, I opened the body, expecting to find water, but, to my great surprize, there appeared as follows: A large round solid substance, shaped in the form of an egg, weighing fourteen
fourteen





J. Myrda sc.

