

II. *A Letter to Charles Morton, M. D. Sec. R. S. from Mr. Adam Walker; containing an Account of the Cavern of Dunmore Park, near Kilkenny, in Ireland.*

Dublin, April 26, 1771.

S I R,

Read Nov. 19,  
1772.

**A**S I do not find in your Transactions any account of the cave of Dunmore Park, about three miles West of Kilkenny, I beg leave to lay before your learned Society an account of this singular cavern; as near as an eye-survey, and a few experiments on its stones and petrefactions, will admit. It is situated in a fine plain, rising indeed here and there into small hills. The country all round abounds with limestone, and quarries of beautiful black marble, variegated with white shells. Different from those of Derbyshire and Mendip, this cave descends perpendicularly 30 yards, from the top of a small hill, through an opening 40 yards in diameter. The sides of this pit are limestone-rock, whose chinks nourish variety of shrubs and trees, down which the inspector must descend with great caution. In this descent, he is  
amused

amused with flights of wild pigeons, and jackdaws from the cave below. When he reaches the bottom, he sees one side of this pit supported by a natural arch of rock, above 25 yards wide, under which he goes horizontally, and sees two subterraneous openings to the right and left. If he turns to the right, he makes his way over rocks and stones, coated with spar in the most whimsical shapes, and formed from the dropping roof, just as the dripping of a candle would cover a pebble. These knobs take a fine polish, are transparent, and variegated with the wildest assemblage of colouring. The Earl of Wandesford had one of them sawn into a slab, and it is as beautiful as a Moco. When I tried these petrifications with an acid, the effervescence was excessive strong; and, as the earth all round is calcareous, and the stones limestone, I humbly apprehend the icicle figures impending from the roof, and these knobs, are thus formed. The rains, that fall on the hill over this cavern, oozing through an okery calcareous earth, and the limestone roof, imbibe or dissolve their fine particles in their descent; and, as this mixture can only filter through the rock exceedingly slowly, the water hanging on the roof is soon dissolved by the air, and the stony particles are left behind. Hence are formed the icicle-shaped cones that hang from the roof; these growing perpetually longer, have, in many parts of the cave, met the knobs from the bottom, and formed a number of fantastic appearances, like the pillars of a Gothic cathedral, organs, crosses, &c. When the rain filters pretty fast through the roof, it falls on the rocks below, and grows there into knobs and cones,

whose vertex points to those that impend from the roof.

A spectator, viewing these, cannot but conceive himself in the mouth of a huge wild beast, with ten thousand teeth above his head, and as many under his feet. The scene is indeed both pleasing and awful; the candles burning dim, from the moisture in the air, just served to shew a spangled roof perpetually varnished with water, in some places upwards of 20 yards high; in other places we crawled on all-four, through cells that will but admit one at a time. After having scrambled about 500 yards into this (which I will beg leave to call the) right-hand part of the cave, we returned to day-light, and then proceeded to view the left-hand part. Here, as our guides informed us there were many different branches of the cavern, we tied one ball of pack-thread to another, as we went forward, that we might more easily find our way back. This branch is not so horizontal as the other; it inclines downwards, and the openings in it are vastly wider, some being at least 100 yards wide, and above 50 high. A small rill accompanied us, which, by its different falls, formed a sort of rude harmony, well suited to the place. In a standing part of this brook, and near a quarter of a mile from the entrance, we found the bones of a hundred at least of the human race; some were very large, but when taken out of the water, they crumbled away. As we could find nothing like an inscription, or earth for a burying-place, we conjectured that some of the civil wars, perhaps that of 1641, might have driven the owners of these bones into this place. The tradition of the neighbourhood threw no light upon it.

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Many of the rocks on the roof and sides of this cavern are black marble, full of white spots of a shell-like figure; and the whole neighbourhood is full of quarries of this beautiful stone, which takes a fine polish, and is used through the three kingdoms for slabs, chimney-pieces, &c. I observed, in some deep and wet parts of these quarries, this elegant fossil in the first stages of its formation; the shells are real, but so softened by time and their moist situation, as to be susceptible of receiving the stony particles into their pores, by whose cohesive quality, they in time become those hard white curls that give value to the marble: and it is very remarkable, and a proof that these white spots have been real shells, and thus formed, that the longer a chimney-piece or slab is used, the more of those spots ripen into view.

I have taken many more notes of the natural curiosities in this kingdom, which I shall be happy to communicate to your respectable Society, if you think the subjects of sufficient importance; and am,

With great respect,

S I R,

Your most obedient,

humble servant,

Adam Walker.