

CHAPTER 17

DEEPER AND DEEPER--THE COAL MINE

In truth, we were compelled to put ourselves upon rations. Our supply would certainly last not more than three days. I found this out about supper time. The worst part of the matter was that, in what is called the transition rocks, it was hardly to be expected we should meet with water!

I had read of the horrors of thirst, and I knew that where we were, a brief trial of its sufferings would put an end to our adventures--and our lives! But it was utterly useless to discuss the matter with my uncle. He would have answered by some axiom from Plato.

During the whole of next day we proceeded on our journey through this interminable gallery, arch after arch, tunnel after tunnel. We journeyed without exchanging a word. We had become as mute and reticent as Hans, our guide.

The road had no longer an upward tendency; at all events, if it had, it was not to be made out very clearly. Sometimes there could be no doubt that we were going downwards. But this inclination was scarcely to be distinguished, and was by no means reassuring to the Professor, because the character of the strata was in no wise modified, and the transition

character of the rocks became more and more marked.

It was a glorious sight to see how the electric light brought out the sparkles in the walls of the calcareous rocks, and the old red sandstone. One might have fancied oneself in one of those deep cuttings in Devonshire, which have given their name to this kind of soil. Some magnificent specimens of marble projected from the sides of the gallery: some of an agate grey with white veins of variegated character, others of a yellow spotted color, with red veins; farther off might be seen samples of color in which cherry-tinted seams were to be found in all their brightest shades.

The greater number of these marbles were stamped with the marks of primitive animals. Since the previous evening, nature and creation had made considerable progress. Instead of the rudimentary trilobites, I perceived the remains of a more perfect order. Among others, the fish in which the eye of a geologist has been able to discover the first form of the reptile.

The Devonian seas were inhabited by a vast number of animals of this species, which were deposited in tens of thousands in the rocks of new formation.

It was quite evident to me that we were ascending the scale of animal life of which man forms the summit. My excellent uncle, the Professor, appeared not to take notice of these warnings. He was determined at any

risk to proceed.

He must have been in expectation of one of two things; either that a vertical well was about to open under his feet, and thus allow him to continue his descent, or that some insurmountable obstacle would compel us to stop and go back by the road we had so long traveled. But evening came again, and, to my horror, neither hope was doomed to be realized!

On Friday, after a night when I began to feel the gnawing agony of thirst, and when in consequence appetite decreased, our little band rose and once more followed the turnings and windings, the ascents and descents, of this interminable gallery. All were silent and gloomy. I could see that even my uncle had ventured too far.

After about ten hours of further progress--a progress dull and monotonous to the last degree--I remarked that the reverberation, and reflection of our lamps upon the sides of the tunnel, had singularly diminished. The marble, the schist, the calcareous rocks, the red sandstone, had disappeared, leaving in their places a dark and gloomy wall, somber and without brightness. When we reached a remarkably narrow part of the tunnel, I leaned my left hand against the rock.

When I took my hand away, and happened to glance at it, it was quite black. We had reached the coal strata of the Central Earth.

"A coal mine!" I cried.

"A coal mine without miners," responded my uncle, a little severely.

"How can we tell?"

"I can tell," replied my uncle, in a sharp and doctoral tone. "I am perfectly certain that this gallery through successive layers of coal was not cut by the hand of man. But whether it is the work of nature or not is of little concern to us. The hour for our evening meal has come--let us sup."

Hans, the guide, occupied himself in preparing food. I had come to that point when I could no longer eat. All I cared about were the few drops of water which fell to my share. What I suffered it is useless to record. The guide's gourd, not quite half full, was all that was left for us three!

Having finished their repast, my two companions laid themselves down upon their rugs, and found in sleep a remedy for their fatigue and sufferings. As for me, I could not sleep, I lay counting the hours until morning.

The next morning, Saturday, at six o'clock, we started again. Twenty minutes later we suddenly came upon a vast excavation. From its mighty extent I saw at once that the hand of man could have had nothing to do with this coal mine; the vault above would have fallen in; as it was, it

was only held together by some miracle of nature.

This mighty natural cavern was about a hundred feet wide, by about a hundred and fifty high. The earth had evidently been cast apart by some violent subterranean commotion. The mass, giving way to some prodigious upheaving of nature, had split in two, leaving the vast gap into which we inhabitants of the earth had penetrated for the first time.

The whole singular history of the coal period was written on those dark and gloomy walls. A geologist would have been able easily to follow the different phases of its formation. The seams of coal were separated by strata of sandstone, a compact clay, which appeared to be crushed down by the weight from above.

At that period of the world which preceded the secondary epoch, the earth was covered by a coating of enormous and rich vegetation, due to the double action of tropical heat and perpetual humidity. A vast atmospheric cloud of vapor surrounded the earth on all sides, preventing the rays of the sun from ever reaching it.

Hence the conclusion that these intense heats did not arise from this new source of caloric.

Perhaps even the star of day was not quite ready for its brilliant work--to illumine a universe. Climates did not as yet exist, and a level heat pervaded the whole surface of the globe--the same heat existing at

the North Pole as at the equator.

Whence did it come? From the interior of the earth?

In spite of all the learned theories of Professor Hardwigg, a fierce and vehement fire certainly burned within the entrails of the great spheroid. Its action was felt even to the very topmost crust of the earth; the plants then in existence, being deprived of the vivifying rays of the sun, had neither buds, nor flowers, nor odor, but their roots drew a strong and vigorous life from the burning earth of early days.

There were but few of what may be called trees--only herbaceous plants, immense turfs, briers, mosses, rare families, which, however, in those days were counted by tens and tens of thousands.

It is entirely to this exuberant vegetation that coal owes its origin. The crust of the vast globe still yielded under the influence of the seething, boiling mass, which was forever at work beneath. Hence arose numerous fissures, and continual falling in of the upper earth. The dense mass of plants being beneath the waters, soon formed themselves into vast agglomerations.

Then came about the action of natural chemistry; in the depths of the ocean the vegetable mass at first became turf, then, thanks to the influence of gases and subterranean fermentation, they underwent the

complete process of mineralization.

In this manner, in early days, were formed those vast and prodigious layers of coal, which an ever--increasing consumption must utterly use up in about three centuries more, if people do not find some more economic light than gas, and some cheaper motive power than steam.

All these reflections, the memories of my school studies, came to my mind while I gazed upon these mighty accumulations of coal, whose riches, however, are scarcely likely to be ever utilized. The working of these mines could only be carried out at an expense that would never yield a profit.

The matter, however, is scarcely worthy consideration, when coal is scattered over the whole surface of the globe, within a few yards of the upper crust. As I looked at these untouched strata, therefore, I knew they would remain as long as the world lasts.

While we still continued our journey, I alone forgot the length of the road, by giving myself up wholly to these geological considerations. The temperature continued to be very much the same as while we were traveling amid the lava and the schists. On the other hand my sense of smell was much affected by a very powerful odor. I immediately knew that the gallery was filled to overflowing with that dangerous gas the miners call fire damp, the explosion of which has caused such fearful and terrible accidents, making a hundred widows and hundreds of orphans in a

single hour.

Happily, we were able to illumine our progress by means of the Ruhmkorff apparatus. If we had been so rash and imprudent as to explore this gallery, torch in hand, a terrible explosion would have put an end to our travels, simply because no travelers would be left.

Our excursion through this wondrous coal mine in the very bowels of the earth lasted until evening. My uncle was scarcely able to conceal his impatience and dissatisfaction at the road continuing still to advance in a horizontal direction.

The darkness, dense and opaque a few yards in advance and in the rear, rendered it impossible to make out what was the length of the gallery. For myself, I began to believe that it was simply interminable, and would go on in the same manner for months.

Suddenly, at six o'clock, we stood in front of a wall. To the right, to the left above, below, nowhere was there any passage. We had reached a spot where the rocks said in unmistakable accents--No Thoroughfare.

I stood stupefied. The guide simply folded his arms. My uncle was silent.

"Well, well, so much the better," cried my uncle, at last, "I now know what we are about. We are decidedly not upon the road followed by

Saknussemm. All we have to do is to go back. Let us take one night's good rest, and before three days are over, I promise you we shall have regained the point where the galleries divided."

"Yes, we may, if our strength lasts as long," I cried, in a lamentable voice.

"And why not?"

"Tomorrow, among us three, there will not be a drop of water. It is just gone."

"And your courage with it," said my uncle, speaking in a severe tone.

What could I say? I turned round on my side, and from sheer exhaustion fell into a heavy sleep disturbed by dreams of water! And I awoke unrefreshed.

I would have bartered a diamond mine for a glass of pure spring water!