# FIVE WEEKS IN A BALLOON & A JOURNEY INTO THE INTERIOR OF THE EARTH by Jules Verne Illustrated Edition

# A JOURNEY TO THE INTERIOR OF THE EARTH

#### PREFACE

THE "Voyages Extraordinaires" of M. Jules Verne deserve to be made widely known in English-speaking countries by means of carefully prepared translations. Witty and ingenious adaptations of the researches and discoveries of modern science to the popular taste, which demands that these should be presented to ordinary readers in the lighter form of cleverly mingled truth and fiction, these books will assuredly be read with profit and delight, especially by English youth. Certainly no writer before M. Jules Verne has been so happy in weaving together in judicious combination severe scientific truth with a charming exercise of playful imagination.

Iceland, the starting point of the marvellous underground journey imagined in this volume, is invested at the present time with a painful interest in consequence of the disastrous eruptions last Easter Day, which covered with lava and ashes the poor and scanty vegetation upon which four thousand persons were partly dependent for the means of subsistence. For a long time to come the natives of that interesting island, who cleave to their desert home with all that *amor* patriae which is so much more easily understood than explained, will look, and look not in vain, for the help of those on whom fall the smiles of a kindlier sun in regions not torn by earthquakes nor blasted and ravaged by volcanic fires. Will the readers of this little book, who, are gifted with the means of indulging in the luxury of extended beneficence, remember the distress of their brethren in the far north, whom distance has not barred from the claim of being counted our "neighbours"? And whatever their humane feelings may prompt them to bestow will be gladly added to the Mansion-House Iceland Relief Fund

In his desire to ascertain how far the picture of Iceland, drawn in the work of Jules Verne is a correct one, the translator hopes in the course of a mail or two to receive a communication from a leading man of science in the island, which may furnish matter for additional information in a future edition.

The scientific portion of the French original is not without a few errors, which the translator, with the kind assistance of Mr. Cameron of H. M. Geological Survey, has ventured to point out and correct. It is scarcely to be expected in a work in which the element of amusement is intended to enter more largely than that of scientific instruction, that any great degree of accuracy should be arrived at. Yet the translator hopes that what trifling deviations from the text or corrections in foot notes he is responsible for, will have done a little towards the increased usefulness of the work.

> F. A. M. The Broughton-in-Furness

Vicarage,

## CHAPTER I. THE PROFESSOR AND HIS FAMILY

On the 24th of May, 1863, my uncle, Professor Liedenbrock, rushed into his little house, No. 19 Königstrasse, one of the oldest streets in the oldest portion of the city of Hamburg.

Martha must have concluded that she was very much behindhand, for the dinner had only just been put into the oven.

"Well, now," said I to myself, "if that most impatient of men is hungry, what a disturbance he will make!"

"M. Liedenbrock so soon!" cried poor Martha in

great alarm, half opening the dining-room door.

"Yes, Martha; but very likely the dinner is not half cooked, for it is not two yet. Saint Michael's clock has only just struck half-past one."

"Then why has the master come home so soon?"

"Perhaps he will tell us that himself."

"Here he is, Monsieur Axel; I will run and hide myself while you argue with him."

And Martha retreated in safety into her own dominions.

I was left alone. But how was it possible for a man of my undecided turn of mind to argue successfully with so irascible a person as the Professor? With this persuasion I was hurrying away to my own little retreat upstairs, when the street door creaked upon its hinges; heavy feet made the whole flight of stairs to shake; and the master of the house, passing rapidly through the dining-room, threw himself in haste into his own sanctum.

But on his rapid way he had found time to fling his hazel stick into a corner, his rough broadbrim upon the table, and these few emphatic words at his nephew:

"Axel, follow me!"

I had scarcely had time to move when the Professor was again shouting after me:

"What! not come yet?"

And I rushed into my redoubtable master's study.

Otto Liedenbrock had no mischief in him, I

willingly allow that; but unless he very considerably changes as he grows older, at the end he will be a most original character.

He was professor at the Johannæum, and was delivering a series of lectures on mineralogy, in the course of every one of which he broke into a passion once or twice at least. Not at all that he was over-anxious about the improvement of his class, or about the degree of attention with which they listened to him, or the success which might eventually crown his labours. Such little matters of detail never troubled him much. His teaching was as the German philosophy calls it, 'subjective'; it was to benefit himself, not others. He was a learned egotist. He was a well of science, and the pulleys worked uneasily when you wanted to draw anything out of it. In a word, he was a learned miser.

Germany has not a few professors of this sort.

To his misfortune, my uncle was not gifted with a sufficiently rapid utterance; not, to be sure, when he was talking at home, but certainly in his public delivery; this is a want much to be deplored in a speaker. The fact is, that during the course of his lectures at the Johannæum, the Professor often came to a complete standstill; he fought with wilful words that refused to pass his struggling lips, such words as resist and distend the cheeks, and at last break out into the unasked-for shape of a round and most unscientific oath: then his fury would gradually abate.

Now in mineralogy there are many half-Greek and half-Latin terms, very hard to articulate, and which would be most trying to a poet's measures. I don't wish to say a word against so respectable a science, far be that from me. True, in the august presence of rhombohedral crystals, retinasphaltic resins, gehlenites, Fassaites, molybdenites, tungstates of manganese, and titanite of zirconium, why, the most facile of tongues may make a slip now and then.

It therefore happened that this venial fault of my uncle's came to be pretty well understood in time, and an unfair advantage was taken of it; the students laid wait for him in dangerous places, and when he began to stumble, loud was the laughter, which is not in good taste, not even in Germans. And if there was always a full audience to honour the Liedenbrock courses, I should be sorry to conjecture how many came to make merry at my uncle's expense.

Nevertheless my good uncle was a man of deep learning-a fact I am most anxious to assert and reassert. Sometimes he might irretrievably injure a specimen by his too great ardour in handling it; but still he united the genius of a true geologist with the keen eye of the mineralogist. Armed with his hammer, his steel pointer, his magnetic needles, his blowpipe, and his bottle of nitric acid, he was a powerful man of science. He would refer any mineral to its proper place among the six hundred <sup>1</sup> elementary substances now enumerated, by its fracture, its appearance, its hardness, its fusibility, its sonorousness, its smell, and its taste.

The name of Liedenbrock was honourably mentioned in colleges and learned societies. Humphry Davy, <sup>2</sup> Humboldt, Captain Sir John Franklin, General Sabine, never failed to call upon him on their way through Hamburg. Becquerel, Ebelman, Brewster, Dumas, Milne-Edwards, Saint-Claire-Deville frequently consulted him upon the most difficult problems in chemistry, a science which was indebted to him for considerable discoveries, for in 1853 there had appeared at Leipzig an imposing folio by Otto Liedenbrock, entitled, "A Treatise upon Transcendental Chemistry," with plates; a work, however, which failed to cover its expenses.

To all these titles to honour let me add that my uncle was the curator of the museum of mineralogy formed by M. Struve, the Russian ambassador; a most valuable collection, the fame of which is European.

<sup>&</sup>lt;sup>1</sup> Sixty-three. (Tr.)

 $<sup>^2</sup>$  As Sir Humphry Davy died in 1829, the translator must be pardoned for pointing out here an anachronism, unless we are to assume that the learned Professor's celebrity dawned in his earliest years. (Tr.)

Such was the gentleman who addressed me in that impetuous manner. Fancy a tall, spare man, of an iron constitution, and with a fair complexion which took off a good ten years from the fifty he must own to. His restless eyes were in incessant motion behind his full-sized spectacles. His long, thin nose was like a knife blade. Boys have been heard to remark that that organ was magnetised and attracted iron filings. But this was merely a mischievous report; it had no attraction except for snuff, which it seemed to draw to itself in great quantities.

When I have added, to complete my portrait, that my uncle walked by mathematical strides of a yard and a half, and that in walking he kept his fists firmly closed, a sure sign of an irritable temperament, I think I shall have said enough to disenchant any one who should by mistake have coveted much of his company.

He lived in his own little house in Königstrasse, a structure half brick and half wood, with a gable cut into steps; it looked upon one of those winding canals which intersect each other in the middle of the ancient quarter of Hamburg, and which the great fire of 1842 had fortunately spared.

It is true that the old house stood slightly off the perpendicular, and bulged out a little towards the street; its roof sloped a little to one side, like the cap over the left ear of a Tugendbund student; its lines wanted accuracy; but after all, it stood firm, thanks to an old elm which buttressed it in front, and which often in spring sent its young sprays through the window panes.

My uncle was tolerably well off for a German professor. The house was his own, and everything in it. The living contents were his god-daughter Gräuben, a young Virlandaise of seventeen, Martha, and myself. As his nephew and an orphan, I became his laboratory assistant.

I freely confess that I was exceedingly fond of geology and all its kindred sciences; the blood of a mineralogist was in my veins, and in the midst of my specimens I was always happy.

In a word, a man might live happily enough in the little old house in the Königstrasse, in spite of the restless impatience of its master, for although he was a little too excitable-he was very fond of me. But the man had no notion how to wait; nature herself was too slow for him. In April, after he had planted in the terra-cotta pots outside his window seedling plants of mignonette and convolvulus, he would go and give them a little pull by their leaves to make them grow faster. In dealing with such a strange individual there was nothing for it but prompt obedience. I therefore rushed after him.

### CHAPTER II. A MYSTERY TO BE SOLVED AT ANY PRICE

That study of his was a museum, and nothing else. Specimens of everything known in mineralogy lay there in their places in perfect order, and correctly named, divided into inflammable, metallic, and lithoid minerals.

How well I knew all these bits of science! Many a time, instead of enjoying the company of lads of my own age, I had preferred dusting these graphites, anthracites, coals, lignites, and peats! And there were bitumens, resins, organic salts, to be protected from the least grain of dust; and metals, from iron to gold, metals whose current value altogether disappeared in the presence of the republican equality of scientific specimens; and stones too, enough to rebuild entirely the house in Königstrasse, even with a handsome additional room, which would have suited me admirably.

But on entering this study now I thought of none of all these wonders; my uncle alone filled my thoughts. He had thrown himself into a velvet easy-chair, and was grasping between his hands a book over which he bent, pondering with intense admiration.

"Here's a remarkable book! What a wonderful book!" he was exclaiming.

These ejaculations brought to my mind the fact that my uncle was liable to occasional fits of bibliomania; but no old book had any value in his eyes unless it had the virtue of being nowhere else to be