

In the laboratory of Alessandro Volta

In the laboratory where Alessandro Volta was working, the untidiness was everywhere. Various objects and materials-copper, glass, bottles and small full vases, empty, opened, closed, metal and leather disks- were all over and the desk was so much obstructed that he could not move anymore. The servants were even not allowed to enter : he could not bear that somebody could move only one of his instruments or his papers. He was the only one to know where "the things" were in this disorder. The others could not guess what to do it and how to do it. Not to mention that in this caphernaüm, he kept also the account of his research.

Alessandro precisely remembered the written letter to Priestley where he had described to him one of his discoveries, expressing this wish : "whether you like it or not I wish to give a name to my small appliance and it would be an everlasting electrophorus."

Electrophorus...How time had flown. Overflowed by other experiments , he had neglected this small promising appliance. All had become so complicated, -especially since Galvani had begun to work on electricity. A really strange man, that Galvani, with his frogs ...what a debate had followed. However, Volta himself, was rather sure of his ideas ! Lost in thought, he went again to control the electrophorus : he lifted the wood lid of the resin base(the electrophorus itself). By touching it he checked that the appliance still provided negative electricity. It was not easy perhaps to say that it was "everlasting", but it functionned nevertheless during a time. He controlled his notes : the experiment had begun three days earlier. Everything was all right.

He was worried about many other things since the following of his discovery. He hadthe chair of physics in Côme's high school. He had travelled a lot : in Switzerland, in Germany, in the Netherthands, in England and in France. He had met and worked with fascinating people. La voisier, Laplace...he reminded each of them. Today he had also planned to order his notes about his electromotive appliance.

What an appliance, built with discs of two different materials piled one on top of the other, made life difficult for him. Sure, he enjoyed himself to sharpen pieces of the same dimensions to make the pilling-up easier! Even the container itself had not been easy to build...

Now he was happy with his experiment, he had yet to describe the instrument in order to prepare the communication to the Royal Society, the London scientist community which approved his discoveries and inventions.

"It's only good conductors of different kind put together in a particular way. Thirty, forty, sixty pieces or more of copper, or better , of silver, each one applied to a pewter one or what it seemed far better of zinc, and an equal amount of pure water layers or another liquid which would be a better conductor than pure water as well as salt water or washing powder...or pieces made of cardboard or leather...well saturated with these liquids. Such layers laid between pair or combination of two different metals, such alternating series and always in the same order of these three conductors, here is that mainly constitutes my new instrument."

Suddenly he raised his eyes from his sheet of paper- what idea crossed his mind ? He thought of this remote day, on the Majeur lake, when, in his small boat, he had seen a lot of small bubbles coming out of the bottom of the lake ? What had he done at that moment ? He had moved the bottom with a stick : other small gas bubbles appeared on the surface. He had collected them. Thanks to his experiences in his office, he had perceived that this gas he had collected was inflammable. And if he used the electric spark to make it explode ? It was a phenomenon to study, one could draw some conclusion...Pushing the nearest papers away, those which were at the end side of the table fell and he picked them up in grumbling."I will write the communication for the Royal Society another time. At the moment it's worth thinking of this idea." He took another sheet of paper , brought the inkpot nearer and began to draw. He had to consider how to make the gas explode which one he had seen coming out of the bottom of the lake. He needed a closed container in order that the gas could not escape from it and that the same gas could explode within. What an interesting problem to resolve.

Deep in his thoughts, he did not hear someone knocking at the door. : his wife appeared at the doorstep of his office because it was lunch time. But when she saw her husband busy with writing, surrounded by piles of papers and books, she went away and shook her head. It was not worth disturbing him, he was too busy with his research and his work. They would eat later.

