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[Who I am](#)

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Les maths comme je les aime ... et comme je les raconte ! 😊

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Math as I like it /1b

APO



My very first story about the point, in 1993! It's silly, but I love it.

Since then, I've never left the point, with "loran" in 2003 but especially, of course, with "Donc, d'après" ("So, according to") in 2013. That's what monomania is all about 😊

I never finished "loran," a story for my daughter's 12th birthday: compared to JK Rowling... I was no match! "Donc, d'après" is something else: although obviously fundamental, the point was... just a starting point.

A long, long time ago, Apo (who wasn't yet called Apo) was a talented Atlantean.

And then no one understood what happened: Atlantis began to shrink...

...and shrink...

...and shrink!

And the Atlanteans were shrinking too!

When he felt that he could soon shrink no further, Apo, like all the other Atlanteans, put on his finest golden tunic, said goodbye to all his friends – who were also shrinking – and prepared to disappear.

Then, for no reason, he attached a flashlight to his tunic, one of those amazing Atlantean flashlights that lasted for millennia and illuminated the ocean to a depth of thousands of meters.

And also, just in case, a large thermos of hot chocolate! Well, it wasn't really that big anymore! But the sound of the hot chocolate sloshing around in the bottle was somehow reassuring. And besides, Apo LOVED hot chocolate.

And what had to happen happened.

As it continued to shrink, Atlantis, which had once been a very large island, imploded:

it collapsed in on itself,
became so small that no microscope could ever magnify its image again.

Smaller than small!

And it sank into the ocean. But slowly, very slowly, don't ask me why.

And all the Atlanteans imploded and sank into the ocean, each on their own. Very slowly.

Each Atlantean was exactly as "*smaller than small*" as each of his neighbors... and even as Atlantis itself.

A man as big as the island he had lived on: that had never been seen before! In fact, it still couldn't be seen: it was the island that had become as "*smaller than small*" as its inhabitants.

At first, of course, Apo was very scared. He knew he was there, somewhere, but he couldn't see himself. He *could feel* his flashlight, but it was no longer next to him, it was *IN* him... and so was the thermos of hot chocolate – or he was in it, whichever you prefer!

As you can imagine, he didn't immediately understand what had happened – in fact, it took him quite a while (but he had plenty of time: he was descending *very* slowly and the ocean was deep) before he came to the conclusion that he, the flashlight, and the thermos had imploded in the same place that was "smaller than small."

Like any educated Atlantean, he knew that in everyday language, a place "*smaller than small*" is called a point, and that an object that can be contained within a point is called a point object. An object, or an Atlantean... or an Atlantean plus a flashlight, plus a thermos full of chocolate!

So, in a moment of twisted humor typical of Atlanteans, he decided to call himself **Apo** from now on: **Atlantean Point Object**.

It was a good idea, as his pre-implosion name was a completely ordinary and utterly unpronounceable Atlantean name!

Naturally, you're surprised that he felt like joking at such a moment, as he was sliding point by point toward the bottom of the ocean.

Well, first of all, he was an Atlantean, so he was a very calm person. And then, as I told you, he was cultured: he quickly realized that since he was still thinking (and since he could make jokes!), he was still alive, albeit in a reduced form... and even "*more reduced than reduced*." He told himself that since he couldn't be reduced any further, he was no longer in any danger.

In fact, he had become immortal! Don't you think that was good news?

To celebrate his new state, he treated himself to a swig of chocolate, or rather, he imagined the actions he would have taken - pouring the chocolate into the thermos cup, then bringing the cup to his mouth and drinking - if the thermos, the chocolate, the cup and he himself had not become a single point object.

And then he discovered the power of his imagination: he felt like someone who had just drunk a cup of chocolate. Better still, he *could feel* the hot chocolate in his stomach. Strange, since he no longer had a form, but it worked!

So, to pass the time as he descended to the bottom of the ocean, he decided to try some experiments:

he imagined turning on his flashlight – and the spot where he was passing became bright, a pretty golden color, like the tunic that had imploded with him.

Then he thought he was sticking the flashlight – still on – *into* the thermos and replacing the cap. It was a strange thought because when they had dimensions, the flashlight was bigger than the thermos. But there was no problem: the (new) spot they were occupying at that moment stopped shining. Interesting!

He thought he was taking the lamp out: the (new) new point it occupied began to shine!

Better and better. What if...? At this depth, the ocean was very cold (for complicated reasons, the temperature in the depths of the ocean is between 2 and 4 degrees Celsius). Apo imagined that he was entering the thermos, closing it around himself, and guess what? He felt nice and warm, with a pleasant smell of chocolate (but how could a *smell* have imploded?).

So, since he now existed only in a form linked to his imagination, he called out in his mind to all his imploded friends... and they heard him. He told them about the lamp, *took* it out of the thermos to shine light on the points he was passing through, and his friends told him they *could see* (with what eyes?) something like a shooting star next to them.

And they all understood that they had become highly sophisticated point objects, point objects that could think, communicate, and illuminate or not illuminate the points through which they passed (provided they had brought a flashlight, but it was an Atlantean habit to bring one when going out), and finally they all wondered: could they *control* these point objects that they had become?

They imagined turning around, going back up to the surface... and after a few failed attempts – completely drunken shooting stars with crazy trajectories – they succeeded.

They all rose up – but without Atlantis, a simple point object of the ordinary kind, the kind that doesn't think. And while they were at it, they went for a walk in the sky, then toward the real stars. They slid continuously from one point to another, and there was always a new point there, ready to welcome them. Time no longer existed, it was wonderful...

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There you have it. During a trip he took to Earth, I met Apo. At first, I thought he was a shooting star, but a shooting star that makes figure eights in front of your nose is rare. He wanted to talk, and it happened to be me. It was pure chance; it could just as easily have been you!

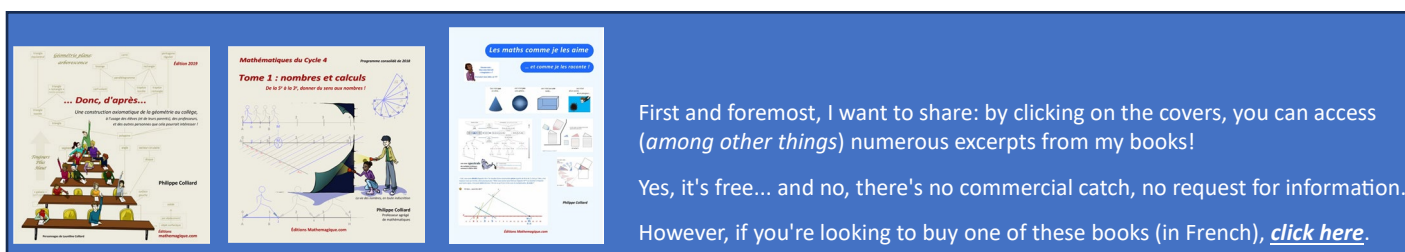
(Of course, he wasn't really talking to me! Sounds can't easily come out of a point object – Apo explained why, but I didn't understand everything: he was thinking very hard, and I understood.)

He taught me what I know about Atlantis, but also about geometry: what a point is, a curve... it's true that you can't find anything better than a point to talk about it.

He was the one who explained to me that he didn't jump from one point to another, but rather slid through them, and that there was always a new point ready to receive him.

He explained to me that, like other men (... women and children), animals, and objects in the universe, I was constantly passing through immense sets of points: I occupied them, I freed them, I occupied others.

And for all these points, I was a kind of ghost who simply appeared and then disappeared without them being able to hold me back.



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