

Beton's stride

My name is Beton. I'm the bodyguard of Queen Berenice. I was with her when it happened. Listen to my story! The Queen was very much in love with her husband Evergetus. That's unusual enough in itself. Evergetus had gone away to war in Syria. As time passed, Berenice had a feeling of foreboding. She felt that Evergetus would not come back alive. She decided to offer a sacrifice to the goddess Isis: "Oh, goddess, my sister, you who gave life back to your husband Osiris, save Evergetus! Let him return alive and victorious." Berenice took a long blade and shaved her head, lock after lock. Her magnificent hair that all women envied her was her offering to Isis. A few hours later, I returned to the temple. The hair had disappeared!

I ran to the Queen's apartments. She was deathly pale. She knew that Isis had refused her offering and that Evergetus would not return alive. But the Queen did not stop there. She offered the goddess a new sacrifice, even greater and more terrible, the secret of which I cannot reveal.

That evening, as the Queen was about to fall asleep, Conon, the old astronomer, forced her door open and brought her out onto the balcony. Instinctively, Berenice looked at the great fire burning atop the lighthouse. Ah, yes! I forgot to say that I live in Alexandria, on the Mediterranean, in the very north of Egypt. What a city! The most beautiful city imaginable – the Golden City, watched over by the island of Pharos. Its two ports overflow with riches, and its streets are so wide that four chariots each drawn by two pairs of horses can drive down them side by side. And the lighthouse, standing 100 m high! And the library, with its seven hundred thousand scrolls. The marvels of Alexandria are endless. Now, where was I? Ah, yes! Berenice and Conon. The astronomer took the Queen's hand and pointed it towards a small patch of sky: "Queen, I've found your hair," he said, pointing at seven stars nestled between the constellations of Virgo and Leo. Ever since that memorable night, those stars have been known as "Berenice's Hair". If you don't believe me, wait for nightfall and see for yourself. Evergetus returned alive and victorious.

Before entering the Queen's service, I did many things. In my youth, I ran the Marathon in the Olympic Games. I didn't win the race, but I finished third. My resistance and endurance were all right. I just lacked a little speed. Regularity is my greatest quality, though. Mind you, it was my job for a long time. I'm a bematist! Haven't you ever heard that word? That's not surprising, because the profession disappeared a long time ago. In fact, I'm the last of the bematists – the last of the "pace counters". I can walk for hours on end with the same pace. I mean with the same length of stride. It really is a profession. Try it for yourself! Try it on the tiling in your room, if you have tiling, or outside, on the pavement slabs.

When someone needs to measure a long distance, they ask me for help. I walk from one point to another, counting my paces as I go. Then, all you have to do is multiply the number of paces by the length of my stride, and you have the distance. Simple, isn't it? Like a meter. My grandfather before me was a bematist. He travelled with Alexander the Great to Asia, where he determined how far the army should march every day. Never too much, never too little. He'd be proud of me.

One day, Eratosthenes, a great friend of Berenice's, who, like her came from Cyrene, came to see me, and made me a offer.

Eratosthenes was one of the most famous men in Alexandria. A great sage. In fact he was in charge of that famous library I mentioned earlier. He was a mathematician and a geographer. He was even the one who invented the word "geo-graphicos" – he who draws the Earth. He drew a map that is still remembered – the map of the inhabited world, from the Pillars of Hercules at Gibraltar to the Great Taurus in India. It was a large rectangular map showing latitude along its width and longitude along its length. What else was he? Ah, yes! He was a grammarian, an astronomer and a philologist... in fact, he could do just about everything.

His last idea was to measure the Earth. Yes, you heard! To measure the entire Earth! And he came to me looking for help – to me, Beton the bematist! Believe me, it was an honour.

I should tell you...at that time, thinkers believed that the Earth was round. There was no doubt about it. It had long been thought flat, or even cylindrical. But now it was round. Just imagine our luck – if it hadn't been round, we couldn't have measured it.

Eratosthenes' idea was to measure a piece of a meridian – never mind the details! I understood all right. A piece of a meridian. A meridian is a line running from north to south through the poles. See, I'm not ignorant. In fact, some people say that I'm rather subtle. That was our second stroke of luck – not my subtlety, but the fact that the line goes from north to south. That was a huge stroke of luck. The Nile – the Nile that brings life to our beloved Egypt – runs a nice course. It flows from south to north, yes, you heard! The Nile runs along a meridian. It's the only place in the World that provides such a wonderful opportunity – a long piece of a meridian marked on the surface of the Earth. Eratosthenes' idea was to measure the Nile between Alexandria, in the north, and Aswan, which is just before the first cataract in the south. How, you may ask? That's where I come in.

Here's what I did: I left Alexandria on foot and walked along the banks of the Nile, counting my paces, always with the same, regular stride. Each evening, Eratosthenes, who was following me by boat – which was less tiring – would write the number of paces on a scroll.

I crossed the delta with its papyrus fields. I passed Memphis and skirted the pyramids of Cheops, Kephren and Mykerinos. They're just as majestic as people say. I saw the Sphinx sleeping at their feet, too, and I kept on walking. I walked every day, as a bematist must. Mind you, I would stop at noon, because of that sun! I'd have a snooze and I'd walk again until evening. I've seen many magnificent things, but the Nile is beyond compare! I've had plenty of time to look at it, and I know all of its bends by now. Sometimes, it's squeezed in between two mountains, and at other times it looks more like a lake. The Egyptians say that it's a gift of the gods, and they're right. At sunset, I'd sit down, tired and happy to have done my duty. I'd look at the orangey-red ball of the sun drop slowly and disappear, eaten by the peaceful river. I've seen temples that are more beautiful than in my wildest dreams – in Karnak, Luxor, Kom Ombo, Edfu and elsewhere.

But I couldn't stop to admire them. I had to arrive before the flood came and covered the banks. That would have destroyed everything, and I'd have had to start all over again. In the end, I arrived at Aswan. Eratosthenes took out his scroll and added up all of my paces from the start of my long march to the end.

Remember that it was thanks to my paces that the Earth was measured for the first time. With Beton's paces! The Night had fallen, and I stretched out on the river bank, satisfied with what I had done. I was tired. I looked at the sky and spotted them, right between Virgo and Leo. One, two, three... I was used to counting... four...but I was so tired... five...

Denis Guedj

