



Charles Darwin - the man and the scientist

A Tale of Two Beagles

Colin Pillinger:

HMS Beagle is one of the iconic ships of Britain's maritime history. If you are asked to name ships, any five you came up with would have Beagle in it.

And therefore it's something which as far as I'm concerned ought to be found and preserved as an inspiration to future generations as to what was achieved on basically very, very little resources.

Colin Pillinger:

When we started this it was because we sort of thought there was this parallel with Beagle 2, and we thought well, we ought to follow up what happened to it.

Judith my wife was the person who named Beagle 2 after Darwin's ship. She did some research and came up with the fact that it had been sold, first of all given to the Coast Guard, and then when the Coast Guard grew tired of it they sold it for scrap and she found the advertisements in the newspaper, when it sold and saying where it was, and of course then we went there and we found there was a place on the shore that actually fitted Beagle, and we geophysically surveyed the place and showed that this is a genuine sort of dock that was made, all the right proportions, and the next stage can only be, let's try and excavate some of it, and of course I'm involved with genuine archaeologists to do this, I'm not going down there with a spade and bucket, I assure you.

Colin Pillinger:

HMS Beagle was a very adventurous mission. It was an expedition, you know, it was there to pathfinder something which might lead to greater things. It had to discover, you know, the way round South America in order to get to the, you know, the eastern parts of the world, which was a and we were trying to explore Mars and, therefore, it was the analogy between the ship and the spacecraft as opposed to the analogy between the science of the two missions, because Darwin didn't set out to discover life, we did. Darwin actually ended up finding out how life evolved, which in a way was what we were trying to do with Beagle 2. We were trying to see whether life evolved on another body in the Solar System which was a pretty fundamental question to attack.

We wanted to find out whether life was different somewhere else, and that's a straight comparison with what HMS Beagle ended up doing. It wasn't what it started out to do but it was what it ended up doing.

Darwin showed that life on Earth developed in different ways, in different places, because those places were isolated from each other at that time when people didn't trek round the world. We were actually going to go to a place which was totally separated from Earth, and therefore if we were to find life it must almost certainly have evolved differently.

The key to Darwin's discoveries was that he had an example of life that he knew about in Europe and an example of life far, far away. He was able to show well this must have actually gone through a process entirely differently.

So if we'd found life on Mars, we'd have had two lives to compare and contrast. It would have taught us an immense amount about how life began and developed.

If we could find out that there was another life, that life on Earth wasn't unique then you'd make this fantastic leap to find out that we aren't alone in the universe. And that is a big, big, big discovery.

Colin Pillinger:

The instruments that we put on Beagle 2 we looked at the ones that HMS Beagle carried in the 1830s and the parallels were so similar. We take cameras in space missions to take pictures obviously.

HMS Beagle took an artist, didn't have cameras so the artist was to paint where they went. There are all the sorts of things on there that you could imagine we would have space missions, there were things to measure. Fitzroy was obsessed by meteorology. We had on Beagle a meteorology package, so we could do the wind and the temperature and the pressures on Mars.

Darwin actually took a little kit to analyse the rocks he discovered. Of course, that was what we were going to Mars for. What's the composition of the rocks? Are these rocks similar to the ones on Earth? And of course Darwin is most well known for the fact that he looked at the animals. We didn't expect to find animals on Mars. But he was a geologist as well. Before he was a botanist he was a geologist and so he analysed the rocks. He had a little blow pipe that he would blow flames across the rock and measure the spectrum. Of course, we had a spectrometer too that was going to measure the rocks, so it was just so similar. And so, you know, nothing changes in science. Science advances but the actual philosophy of doing science doesn't change much.

Colin Pillinger:

HMS Beagle was a mission, an expedition that people remember. After 200 years they still remember it. We felt that Britain going to Mars would be something that would likewise be remembered. And of course, we haven't had 200 years but I'm still recognised in the street by people who say "Oh you were the guy that ran Beagle 2, weren't you?"

It has stuck in people's memories and I hope it will stick for a little bit longer.

Colin Pillinger:

Fitzroy's expedition was not the first HMS Beagle expedition, it was the second one, so we live in hope. Maybe we'll have the second mission of Beagle 2 one day.