

NOVEMBER MEETING

“The Blue Marble”

A talk by Gloria Barnett MA, BSc.

Science Presenter and Author

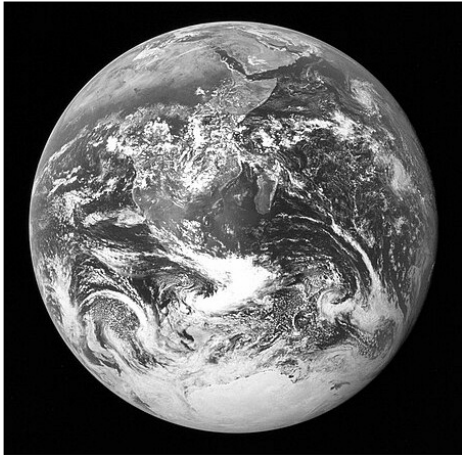
On 18th November, just a few days after returning to the UK following an international speaking tour, I received a call. “Gloria” said a friendly voice, “our speaker tonight has had to pull out, is there any chance you could come and talk to the Dover Society tonight at 7.30 pm.” Well, of course, I said yes! Don’t I always take every opportunity to tell everyone about my subject? The Members of the Society gathered. I could hear gentle, whispered voices - who was the speaker? What is she going to talk about? Then, the first slide was up on the screen, an image of Planet Earth. What were they going to hear?

Everyone waited patiently to hear the Chairman’s announcements, then I was introduced: “Gloria is an educator, an international speaker and an award-

winning author, and she is just back from working as an Insights Lecturer on Cunard’s Queen Mary 2, speaking to hundreds in her audience. We are delighted to welcome her to be with us tonight.”

The audience listened intently; eyes followed my movements. My talk started with thinking about the amount of water in the oceans on Earth. Yes, as I hoped, most people knew the number: 70% of the surface area of our planet is covered by the oceans. Our planet is known by the name ‘The Blue Marble’ and there is more water than land. The audience relaxed, then became engrossed.

My information about the oceans on our planet was just one half of my talk that evening. I began by helping the audience to understand how far the distance was from the Earth to the Moon and how many times humans had explored the moon, compared to only 5% of our oceans being explored on Earth. How much water (as a percentage of the Earth’s surface) is in just one ocean? The Earth’s largest ocean is the Pacific, I felt the intake of breath - 46% of our planet’s surface is in this one ocean. An image of the Earth taken from a satellite, showed the Pacific Ocean covering nearly half the planet.



Earth - The Blue Marble - taken from Apollo 17 in 1972

The audience learnt about the deepest part of the oceans and compared climbing Everest to going down into the deep ocean. I explained the cold, deep ocean temperature and lack of both light and

oxygen. This was not a place for humans. It was a different world. There was so little time to tell everyone everything they needed.

There are millions of weird and wonderful creatures that live in the oceans, but I hadn't time to talk about all the marine life, so I just introduced the Blue Whale, the largest creature on Earth. Then I introduced algae, tiny oceanic life forms such as microscopic plankton, which uses photosynthesis (like trees and plants on land) to produce the essentials of life, our oxygen and our glucose. The audience became amazed at the revelation that it is the ocean which puts most of the oxygen into the atmosphere. The plankton and seagrass in the oceans together produce 80% of all the oxygen on our planet. The rainforests and trees/plants on land provide just 20% of atmospheric oxygen. Without the oxygen from the ocean, there would be no life on Earth. I spoke about the science of convection currents, the movement of heat from the Sun, the formation of the water cycle in the oceans, the development of rain, and the importance of ocean currents moving the heat about the planet.

Now the audience had the basis of the scientific knowledge they needed to start to look at the second half of my talk, 'Human Effects on the Ocean.'

I could feel the disgust in the audience at the images of waste pollution in the water, the harm being done to ocean creatures by nets and fishing tackle pollution, and how the super trawlers can kill thousands of ocean creatures with one net.

I explained how the heat in the atmosphere traps the excess carbon dioxide produced by burning fossil fuels and how the oceans keep the Earth's

atmosphere in balance by acting as a natural carbon sink, taking in excess carbon dioxide whilst producing the oxygen we need in our atmosphere. I asked if humans could change their thinking and their behaviour. Could all humans stop using fossil fuels and live sustainable lives?

I explained some good news, the ocean (and river) clean-up and planting of seagrass, with people working together across the world. I recommended the World Wildlife Fund list of how we could all help to 'save' life on our planet. 'Use your voice,' it said, and I explained what I do and why I speak about my subject. As an educator, I am passionate about helping the next generation to understand the Earth, its beauty and its problems. I help, through my books and my talks, to encourage everyone to be caring about their environment.

I finished with a film from two Cornish schools, where the children told us what we had to do! Yes, an emotional film - and, to be honest, an emotional evening when, once again, I shared my passion with an audience.

Don't forget we saw the slide with a placard reading "Never doubt that a small group of people can change the world..."

You were my small group of people on 18th November 2024.

Thank you, Dover Society, for allowing me to join you and share my passion.

If you have any questions, please contact:
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