

Calder: Experiencing the Earthquake in Morocco

By Dr John Calder

In September, people from around the world gathered in Marrakesh Morocco for the 10th International Conference on Global Geoparks, a conference including 1,500 delegates from around the world. The meeting is where much of the work of Global Geoparks gets done. The first long days of the meeting, before most delegates from around the world arrive, involve decisions on the status of Geoparks following their initial evaluations to become members of the



Dr John Calder was presented with the Best Practice Award at the GeoParks Network Conference in Morocco. (Submitted)



Cliffs of Fundy GeoPark has been twinned with M'Goun GeoPark located in Morocco's Atlas Mountains. 300 million years ago, we were sister and brother, almost able to touch one another in the supercontinent called Pangea, before being slowly separated by the forces of Earth as Pangea broke apart into the continents that we know today. Morocco and Nova Scotia share similar soils along their respective coastlines, something that happened when the continents split during Pangea, 300 million years ago. The partnership was signed hours after the earthquake. (Submitted)

Global Geopark Network, and the revalidation missions that take place every 4 years, holding Geoparks accountable to be meeting the high standards of the designation.

Two years ago, I was elected by Geoparks around the world to represent Canada for a four year term, and so was there to do that work, as well as to present a paper on personal experiences of climate change gleaned from years of teaching the subject to students from 67 countries at Saint Mary's University. And, as always, proudly representing our Cliffs of Fundy, my home Geopark.

This was the first such meeting of Geoparks from around the world in 5 years, and to me, is the heart of this global family of geoparks. I have attended scientific conferences for almost 50 years (in itself, a startling admission), but no other gathering is so free of politics and of compe-

tion as this UNESCO Conference of Global Geoparks - the Global Geoparks Network is just that, a family of supportive communities and cultures from around the world. Here in Marrakesh, 1200 people from 50 countries gathered to support one another, to learn and to be inspired so that they can go home to help their communities to further their goals of sustainable economic development through geotourism.

All of this was tested but not broken late on the evening of September 8th, when the clock struck 11:11. A severe earthquake, not far below the surface of the Earth's crust, shook the city of Marrakesh, and surrounding mountain villages. While there was damage to the thousand year old city, it was the villages of the High Atlas Mountains that suffered the most. Their mud brick buildings collapsed, killing thousands of people. What is

more, the earthquake triggered landslides that took out the few buildings that remained. I happened to be in the company of Greek colleagues who have much experience living through earthquakes, and their calming influence was huge. But even they said that this was the most powerful earthquake that they had experienced. We were the fortunate ones.

The next day, we met with Moroccan emergency teams and conference officials who asked us to gather the 1,200 delegates in a safe place under a massive tent that had been meant to host dinners for the conference delegates. Remarkably, none of the delegates were seriously injured. Blood collection services were hastily put into place on site to help survivors, and I along with others from across the globe volunteered. I cannot help but think of Jenna McQueen, an indigenous member of Tumbler Ridge UNESCO Global Geopark in northern BC, who after volunteering to stand watch over her Canadian colleagues, including those from Cliffs of Fundy on the side of the road outside their hotel that night, showed up with no sleep the next morning, and gave of her own blood. Remarkable.

Remarkable too, that later that day, a representative of Morocco found me in the tent planning a sombre closing ceremony, and was told to come quickly, that the conference organizer Dr. Driss Achbal, was looking for me. And there, we signed a twinning agreement between our Cliffs of Fundy Geopark and M'Goun Geopark in the Atlas Mountains of Morocco. 200 million years ago, we were sister and brother, almost able to touch one another in the superconti-



Cliffs of Fundy geoscientist, Caleb Grant presenting to the 1,500 delegates at the UNESCO GeoParks Network conference. (Submitted)

nent called Pangea, before being slowly separated by the forces of Earth as Pangea broke apart into the continents that we know today. Mayor Christine Blair of the Municipality of Colchester had travelled to Morocco specifically to sign this agreement linking our two Geoparks and the people of Morocco and Nova Scotia, only to fall gravely ill.

It is my sincere hope that the people of the shore come together to hold a benefit for our cousins in Morocco at this great time of need.

Dr John Calder is retired as Senior Geologist from Province of Nova Scotia. He is founder of Cliffs of Fundy GeoPark and is an internationally recognized/award winning scientist /geoscientist /geologist, author, educator, commentator and photographer. His passion is sharing the incredible story of the Earth, for which he was awarded the H.R. Ward Neale Medal of the Geological Association of Canada for excellence in communicating

geoscience to Canadians. He was the lead scientist in the designation of the Joggins Fossil Cliffs of Nova Scotia as a UNESCO World Heritage Site. John is author of *The Joggins Fossil Cliffs: Coal Age Galápagos and more than 200 scientific publications on the region's geology.* Now that he is retired he has been appointed an evaluator with the UNESCO unit which approves GeoPark's entrance into the Global GeoPark network.



Damaged but still standing, Marrakesh. (Submitted)



The executive of the GeoParks Global Networks congratulating the Moroccan organizers for their resilience. (Submitted)

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