## World Map Recommended by Dr MOHRI Mamoru, a Former Astronaut

In January this year, I visited the National Museum of Emerging Science and Innovation (also known as Miraikan) in Odaiba, Tokyo. There, I met Dr MOHRI Mamoru who was the Chief Executive Director of the Miraikan at the time. When I spoke to him, there was an item which he wanted everyone to know about – the AuthaGraph World Map.

The AuthaGraph map was designed in 1999 by NARUKAWA Hajime, a Japanese architect. The map faithfully represent the shape and the relative size of each continent, all neatly presented in a rectangular frame. On the back of the map, is a message from Dr MOHRI:

The earth we see from a space shuttle is a sphere, with no ends regardless of the flying direction. The AuthaGraph map represents exactly that – there is no specified centre, but any point on the map can be taken as the centre. It's a map which gives a diverse perspective, and I am delighted that this map will be used for educational purposes at schools and homes.

Back when I was at school, we were taught geography with a world map based on the Mercator projection, where Antarctica was drawn as a wide, large continent on the bottom. That was where my familiarity with the world map had started.



The AuthaGraph map displayed at the Consulate

It might be a little hard to see from the photo – but if you have the chance, I highly recommend everyone to come to our office to see the AuthaGraph map. The AuthaGraph Map has also been donated to various places as a souvenir from Japan including people in the Australian government, education industry, and Japanese schools including Saturday schools which teach Japanese. Just the other day, I invited a governmental representative who is highly specialised and renowned in chemistry, as well as his wife to my residence for a meal. I gifted him the AuthaGraph map, and he was delighted to receive one as he had never seen anything like it before.

He also kindly brought me a gift – a smartphone holder created on the concept of tensegrity, a term combining *tension* and *integrity*. If you look at the stand carefully in the photo below, it looks as though it is floating in the air. As the tension continuity and compression discontinuity self-equilibrate through the fishing wire, the structure can support itself to stand. I don't quite understand the theory myself, but I heard that it's even possible to build tables and chairs using the same concept!

The person behind the term *tensegrity* and this design is Buckminster Fuller, who is an American architect, inventor, and philosopher.



On the back of the AuthaGraph map gifted to me from Dr MOHRI, Buckminster Fuller is introduced as an architect who attempted to accurately represent the relative locations of each continent in 1946 through what is called a Dymaxion Map. The creation of the AuthaGraph map was greatly inspired by the Dymaxion Map!

The fact that the origins of both gifts coincidentally trace back to the idea of the same architect, was indeed a bit of a surprise.

As you can see, the AuthaGraph map shows the relative position of each country. It also explains why Miami and Texas are common stopovers when flying from Japan to South America, as it is the fastest route. Moreover, if you look at the map from Australia, Japan is located on the north of the east coast of Australia and India is on the north (or north-northwest) of the west coast of Australia. People tend to think that India is even further to the west, but it's surprisingly not.

I'm looking forward to using the AuthaGraph map more in the future!

SHIMADA Junji 10 September 2021