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**Association of Open University Graduates**

**Europe**

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Welcome to this Summer's Europe Newsletter and a special welcome to the new members of AOUG living in Europe. Our 'family' expands!

It has been a busy time at AOUG with the AGM and Spring Weekend taking place at Darlington in May. You will be able to read all about it in the next edition of OMEGA due out in August but rest assured, Robert Girling from Malta and myself representing Europe, had a wonderful time. There was one very important change agreed for the Association, which could be very useful for members in Europe. Full details are at the end of this Newsletter but I think you will find it thought provoking. Quite often husbands or wives of members share in the activities of the Association which is fine if you live in the United Kingdom, however it could be possible that if your partner was in the UK on his/her own, they could take part in any of the activities on offer. I am sure that some of you visit the United Kingdom at some time, so please remember to take your OMEGA with you and get in touch with the Regional Representative if you would like to go to any of the events taking place during your visit.

Following the last Newsletter with a request for nominations for a new list of the Seven Wonders of the World, (sites created within the last 200 years) I have received some interesting suggestions. Patrick Noble has offered The Three Gorges Dam of the Yangtze River in China, (see below). Carole Fogg has suggested Gaudi's Church of the Sagrada Familia, Barcelona and has offered to write about it for the next Newsletter. I then put my thinking cap on, what would I like to offer? The Statue of Liberty in New York, a bold statement of a monument came to mind along with the Angel of the North in England which was greeted with diverse opinions when first erected but is now accepted as part of the scenery, but I have settled on the Eden Project in Cornwall, England. I hope that you enjoy reading about them and I await other suggestions. The world is a large planet with many wonderful, interesting, thought provoking sites but as individuals, we all have different views on what we see or hear about them. I await your choices.

Patricia Cowling

## **The Three Gorges Dam on the Yangtze River**



### **The Yangtze River**

The Yangtze is one of the great rivers of this world, in the same league as the Mississippi, the Mekong and the Amazon. For thousands of years it has been the life blood of Central China, being a source of water for human consumption, agriculture and industry, as well as providing one of the main communication routes of the country. But it was also feared by the Chinese people for its destructive, unpredictable propensity to spill out over its banks to flood vast areas, leading to widespread material damage and loss of life. There had been, during many decades, projects to tame this monster, finally resulting in the construction of the Three Gorges Dam and its associated installations, starting in 1994, and completed by stages over the years from 2003 through to 2012.

### **The purpose of the Three Gorges Dam**

The dam has three *raisons d'être*:-

To regulate the flow of the river in order to reduce the risk of flooding downstream.

To improve conditions of navigation.

To generate electricity.

### **The dam's construction**

Physically the structure is mind boggling; just a few statistics:-

It is over two kilometres long and 181 metres high including the foundations.

27 million cubic metres of concrete were poured.

463 thousand tonnes of steel were used, enough to build 63 Eiffel Towers!

## **Flood control**

The primary purpose of the dam is to smooth out the flow of the river, by retaining the excess volume during the period of the year from April onwards and releasing water during the dry season from December to March. This reduces the likelihood of flooding downstream; it is estimated that a serious flood could still occur, but only once in a hundred years, as opposed to once every ten years or so before the dam was built.

The capacity of the reservoir formed upstream of the dam is some 39 cubic kilometres and its surface area is 1045 square kilometres. That is an awful lot of water!

## **Improvements in conditions of navigation**

Previously piloting ships and strings of barges up and down the Yangtze River was to say the least tricky, depending on the level and the rate of flow, with numerous unmarked and ever changing shallows, or very fierce currents in the narrow gorges, making it difficult and costly for vessels going upstream.

With the dam in place, the lake upstream provides plenty of water depth, a broad, safe waterway, with little or no current. Downstream, with the dam regulating the flow, there is sufficient water depth even during the dry season and no excessive currents. A further major benefit is that larger vessels can be used giving economy of scale. Overall less fuel is consumed, reducing costs and air pollution. These conditions have resulted in a huge increase in river cargo traffic, which means decreased transport by road, which in turn means less accidents and less air pollution.

But how do ships get past the dam? There are two sets of five locks, one for upstream traffic and the other for downstream, with a capacity to take vessels up to 10 000 tonnes. There is also a vertical lift able to take vessels up to 3 000 tonnes. Extraordinary!

Overall, with the Three Gorges Dam now in place, the Yangtze River provides a high capacity east / west maritime route, enabling large ships to penetrate deep into the heartland of China, up to 2 400 kilometres from Shanghai on the coast.

## **Power generation**

Water released downstream passes through turbines to generate electricity. The installed capacity of 22 500 Megawatts, making it by far the biggest power station in the world. Completely mind boggling! However, the available rate of production of electricity at a given time of the year is to a large extent determined by the water level in the reservoir and the rate of flow needed. Even so the dam makes an enormous contribution to the electricity requirements of China.

Hydro power is of course a renewable energy, with zero emissions into the atmosphere. A large proportion of China's electricity is generated by burning coal, with resultant air pollution. Providing a gigantic hydro-electric power station massively reduces coal consumption, with a corresponding reduction in air pollution and emission of greenhouse gases.

## **Tourism**

The Three Gorges Dam has become a major destination for both Chinese and foreign tourists, arriving by road or on a Yangtze River cruise passing through. This is an indirect, but appreciable benefit.

## **The downside – A controversial project**

The project from the start was controversial, but then dam projects always give rise to opposition, but what is the alternative? To do nothing? To put the question into perspective, let us cite some of the negative outcomes of the dam:-

The forced displacement of 1.3 million persons, uprooted from their ancestral homes alongside the Yangtze.

The flooding of very ancient archeological sites.

Landslides on the new lake banks, as well as possible provocation of earthquakes.

Upsetting the river and river basin's ecological balance, affecting the flora and fauna.

Trapping pollution upstream of the dam (Though there has been an effort to treat raw human and industrial sewage discharging directly into the Yangtze, which made it an open sewer, just too bad for those living downstream).

## **Can this be thought of as “A Wonder of the World”?**

I feel that The Three Gorges Dam is a valid candidate because:-

Daring to confront the immense forces of nature represented by the Yangtze River and finally dominating these forces was a gigantic challenge.

The dam reduces the risk of flooding, improves conditions of navigation and provides large scale renewable energy (These are to be balanced against the negative outcomes).

The statistics are staggering.

The dam is a gigantic structure.

It houses by far the world's biggest power station in terms of installed capacity.

It is by far the world's biggest renewable energy installation.

Patrick Noble

## **The Eden Project**



The Eden Project is located in a reclaimed kaolinite pit at Bodelva, St Austell in Cornwall, England. The clay pit was in use for over 150 years but, as with many other kaolinite pits in Cornwall, by the mid 1990s it was no longer viable. The project was conceived by Tim Smit and designed by architect Nicholas Grimshaw and engineering firm Anthony Hunt. It took two and a half years to build and was opened to the public in March 2001. The work there continues with an addition, The Core, which provides educational facilities.

The Eden Project has two biomes, which consist of hundreds of hexagonal and pentagonal, inflated plastic cells which are supported by steel frames. The Rainforest Biome is the world's largest greenhouse, covering 1.56 ha (3.9 acres) and is used for tropical plants. The other biome is the Mediterranean Biome which covers 0.65ha (1.6 acres). The plants in both biomes are collected from many diverse climates and environments. Also there is a 30 acre outdoor garden represent the temperate regions of the world.

The environmental aspects of the project could be considered to be the most important. Being environmental friendly, the only mains water used is for hand washing and cooking, all other water used is sanitised rain water that would otherwise collect at the bottom of the quarry. Also, green tariff electricity is used, the energy coming from many wind turbines in Cornwall. Although it could be argued that wind turbines are a blight on the countryside, their actual use here is being put to good use. It is possible that over time the project will keep alive plants which are struggling in their natural environment.

Another important aspect is the educational side of the project. School groups are catered for as well as sufficient information being provided for all visitors to the site, to understand the workings of nature within the biomes and the natural world. For gardening enthusiasts it is a dream world both inside the biomes and outside in the gardens where the plants must cope with the volatile English climate.

As far as tourism is concerned, the Eden Project has provided Cornwall with a much needed boost to its economy. Although situated in the far south west of England, it has attracted visitors from all parts of the world and regardless of the weather provides a worthwhile visit.

The majority of the Seven Wonders of the Ancient World are sites which have visual impact. The Eden Project sits very well with that image, the biomes nestling into the Cornish country side but at the same time, appearing to be from another time, somewhere in the future. It will be interesting to see if the structure survives for future generations to enjoy.

Patricia Cowling

## **Associate Membership**

The AGM 2017 at Darlington has overwhelmingly voted to allow friends and relations to join our organisation as Associate Members. They will not have any voting rights or be able to join our Executive Committee, however they are very welcome to receive the OMEGA and Newsletters and join our organisation to benefit from our social activities. Previously at the AGM in 2016 we have allowed Students from the OU to join us. The cost is £20 per year (£24 for Continental Europe and £28 for the rest of the world), the same as a full member. They have to be nominated by a full member of AOUG. So let's welcome as many people as we can to allow our organisation to grow in strength.

We have had a great deal of interest and have already had Associate Membership applications, so please spread the word. Please request Associate membership forms from the AOUG Office 01908 653316 [aoug@open.ac.uk](mailto:aoug@open.ac.uk)

## **Foundation Funding**

Every year, the AOUG Foundation for Education offers nine Research Awards and fourteen Awards for new graduates who have overcome adversity to obtain their degrees. You will have read about previous winners in OMEGA. The Awards for 2017 have been advertised and nominations have been received. However, this year there is real concern that there will be insufficient funds to offer as much as in previous years.

As in the past, interest from investments has been added to your donations and at our recent AGM in Darlington, we were pleased to receive money from the raffle and the piggy bank (which is on display wherever possible). However, this is still unlikely to be enough.

These Awards are highly regarded by The Open University and we are proud to be able to acknowledge what its students have achieved. Please consider sending a donation to AOUG Office if you can spare it. Cheques, in sterling, should be made payable to “AOUG Foundation for Education Limited” and sent to AOUG Office, Walton Hall, Milton Keynes, MK7 6AA. Payment can also be made by phone 01908 653316 or by annual covenant (please request a form).

## **This Year’s AOUG Foundation Lecture**

At 2pm on Friday 6<sup>th</sup> October 2017, at The Open University, Walton Hall, Milton Keynes, Tamsin Waterkeyn will be delivering the AOUG Foundation Lecture. Tamsin, an Open University postgraduate student, has been researching for a Doctorate in Education whilst working full time in Saudi Arabia and has just returned to the United Kingdom.

The subject of her lecture is “The Socio-Cultural Impact of Globalisation and English in Saudi Arabia: A Narrative Enquiry”. This promises to be a very interesting and informative lecture deserving of full support and, for those who have not been to the campus in recent years, it also gives the opportunity to see how things have changed. Members who have not been to one of the Lectures before will be particularly welcome.

Admission is by ticket only at a cost of £10.00 which also includes a buffet lunch, tickets available from AOUG Office – [aoug@open.ac.uk](mailto:aoug@open.ac.uk) or by phone 01908 653316 before 8<sup>th</sup> September.

### **Just a quick reminder.**

I do appreciate any contribution for the Newsletter from our members, on any subject that you think will be of interest to other members. So, the copy date for the next Newsletter is:-

### **Friday 6<sup>th</sup> October**

However I have no problem with copy coming in after the date but would appreciate a note from you to say something is on the way.

Have a wonderful summer.