

Technology brings Saudi Arabia's past alive for a new generation

International researchers gather for 1st Saudi Archaeology Convention

Riyadh, 08 November 2017

Fittingly for a country with a such a young and tech-savvy population, Saudi Arabia is making the most of digital technology to uncover its past – and to increase understanding of its heritage, particularly among younger generations.

Technology was a recurring theme at the 1st Saudi Archaeology Convention being held in Riyadh this week (November7-9), both in terms of an important research tool used by research teams up and down the country, but also as a popular way of engaging the general public. For example, convention delegates were shown a locally-developed mobile app which provides handy information on the history and heritage of the Holy Cities of Makkah and Madinah and historic pilgrimage routes – perfect for those visiting Saudi Arabia for hajj.

And while this app is offering an eye on the past, it is also completely on-message with Saudi Vision2030, the nationwide economic and cultural change program. The main aim of this is to reduce the country's dependence on oil – but also to build an open, vibrant society at the heart of the Islamic world. Such an app is perfectly conceived as the country looks to increase annual pilgrim numbers to 30 million, but it also exemplifies the burgeoning tech sector in the country.

Convention delegates also heard how technology is driving more precise documentation of sites, artefacts and manuscripts, and enabling academic research to be more easily and widely shared. And with such a vast area of terrain to survey, geo-technology is proving an important research tool. Presentations on the first day explored the role of geo-systems in mapping ancient urban areas, and how this technique has been used to create an interactive map of historical maps in Makkah.

Such technology – and in particular aerial digital surveying – has been invaluable in building up a detailed picture of paleo-lakes and rivers that characterized the Arabian Peninsula in past epochs. Some 10,000 ancient lakes have been mapped, with the aerial surveys pinpointing areas ripe for more detailed fieldwork. The findings have been stunning – and have done much to change previous theories of humankind's evolution, and cement Arabia's position at the crossroads of civilizations.

Researchers from the Green Arabia Project, a joint collaboration between the SCTH and international experts from the Max Planck Institute in Germany and Oxford University in the UK, have found a great deal of fossil evidence around these watercourses, showing that Arabia has had intermittent wet and fertile periods when a variety of animals have made the

Peninsula home, including such as hippos, *Palaeoloxodon* (an early species of giant elephant) and other grazing animals, remains of which date from 600,000 years ago.

Primitive tools and remains of homo sapiens dating from about 80,000 ago have also been found in the Nafud desert, suggesting that Arabia was one of the first destinations when homo sapiens first migrated out of Africa. Even more startlingly, earlier species of mankind such as Neanderthal and homo erectus lived on the Peninsula even before that – maybe as early as one million years ago.

Those discoveries, and the painstaking research that lead up to them, were honoured in the official opening ceremony which took place in the National Museum after the first day's scientific program. Accepting the award on behalf of the Green Arabia project Dr Michael Petraglia, professor of human evolution and prehistory at the Max Planck Institute, and formerly of Oxford University, remarked that the findings of his team were in accord with the Quran and hadiths, which speak of Arabia returning to a greenness. According to Dr Petraglia this will almost certainly happen again, as suggested by the alternating periods of desertification and wetness that the Peninsula has experienced since prehistory.

In his acceptance speech, Petraglia also paid tribute to HRH Prince Sultan bin Salman bin Abdulaziz, the President of the SCTH, for being the driving force behind Green Arabia – and his passion for archaeology and opening up the Kingdom's cultural heritage to people from within the Kingdom and abroad.

In his welcoming speech, Prince Sultan said: "Archaeological explorations have been undertaken since the reign of the late King Abdulaziz, and have continued under all the subsequent Kings who all understood that our country is a land of great civilizations, where the religion of Islam and the Holy Qura'an came to light, and that our country is a place where the many of the world's civilizations have intersected, and where the greatest message to mankind was received."

Having referenced the many years of archaeological endeavour within Saudi Arabia, the opening ceremony concluded with a presentation to one of Saudi's most revered archaeologists, Dr Abdulrahman bin Mohammed Al Tayib Al Ansari was honoured with the launch of an annual prize in his name to be awarded to the most promising young archaeologists.