Scottish experts to record Chinese heritage site

The First Minister today announced that one of China’s most important heritage sites is to be digitally recorded for future generations by a team of Scottish experts.

A delegation will be travelling out to The Eastern Qing Tombs in China next year to begin work at the site.

In use from 1666 to 1911, the Tombs are amongst the most spectacular in the world and are the resting place for some of China’s most famous emperors.

The trip is part of the Scottish 10 project, a joint venture between Historic Scotland and Glasgow School of Art to digitally document all five of Scotland’s world heritage sites and five international sites – the first being the Presidents Heads at Mount Rushmore in the United States.

Each site is digitally scanned using the most advanced laser technology, to create exceptionally accurate, 3 dimensional archival records of these spectacular sites.

The finished material can be used to monitor changes to the structures as well as providing the basis for remote access, education and interpretation resources to allow a much wider audience to experience these sites.

The announcement was made by the First Minister at the opening of the Digital Documentation Conference, which welcomed an international delegation to Glasgow to look at fostering collaboration on the use of 3D technology and digital imaging.

First Minister Alex Salmond said:

“The Scottish Ten project is an example of how Scottish expertise is being used to help manage and conserve some of

the most precious and iconic heritage sites in Scotland and across the world.

“This cutting edge technology has already been used to scan St Kilda, New Lanark and Neolithic Orkney in Scotland and Mount Rushmore in the United States with work also underway to capture the Queen’s Stepwell – or Rani Ki Vav – in India.

“We have been working closely with the Chinese government to identify a suitable location for some time and I am delighted to be able to announce today that a team will be going out to the Eastern Qing Tombs next year to begin capturing this truly spectacular site.

“These tombs – the resting place for some of China’s most famous emperors – will complement the rest of the Scottish Ten’s portfolio, and we are confident this work will help our Chinese partners maintain and enhance understanding of this hugely impressive heritage site.”

The First Minister also announced that Scotland will be the first country in the world to digitally document its national collection of monuments in 3D. Historic Scotland will embark on a project to digitally document all 345 sites in 3D and make this information available to the public, reinforcing the government’s commitment to Scotland’s cultural heritage.

The team will be focussing on one of the site’s most famous

tombs – that of Xiao Ling. The tomb was the first to be built and is the biggest and most elaborate on the site and hugely influenced the style of those that followed.

They will also be recording the Jingling Tomb of Emperor Kangxi, often regarded as the greatest Emperor of the Qing Dynasty.

It is anticipated that the team will be on site for two weeks to digitally record the tombs and plans are already underway for the trip.

David Mitchell, Head of Conservation for Historic Scotland said;

“It’s a huge privilege to be digitally recording this fascinating site.

“Each site in the Scottish 10 project poses unique challenges in terms of the terrain, climate and geography of the site.

“Having experienced extremes of both temperature and climate as well as the logistics of conducting laser scanning several hundred feet up in previous projects, our team are well versed to operating in different climates. We are very much looking forward to working with our Chinese partners on the site.“

The team will be using terrestrial laser scanners, GNSS devices and 360% photography to digitally create a detailed 3D model, before analysis and processing is done at the Digital Design Studio in Glasgow.

Doug Pritchard, Head of Visualisation at Glasgow School of Art said;

“The technology can record these sites in a detail never achieved before.

“There are numerous benefits to this from learning more about how a building was constructed through to being able to decipher inscriptions and markings which reveal more about a buildings past.

“These buildings were built at a time of great change in China and have the potential to tell us much more about this fascinating period in time.”