Camkoon for CCTV News

Bringing the Sanxingdui archaelogical discoveries to life

The Sanxingdui ruins are one of the most famous country culture relics in China, and following new archaeological discoveries there, Chinese national television CCTV relied on Camkoon to present them in a visually attractive and eye-catching show.

The remains that ancestors all over the world have left behind are essential to define today's culture. Ancient remains are there to explain how civilizations evolve, and become examples of the ingenuity and beliefs of our predecessors. But, when it comes to spread the word about them and gather the interest of audiences at home, broadcasters must ensure they present them in an attractive enough manner so the viewers are engaged with the information, which in some cases can be hard to follow.

When faced with the challenge of creating a show to showcase the new discoveries in Sanxingdui, one of the most important archaeological sites in China, the national television CCTV decided to make the information both attractive and understandable for all audiences.

For that reason, the idea was to create a eye-catching show, conducted by a combination of real and virtual anchors, using a real presenter along with Daliren, one of most important existing culture relic of Sanxingdui found many years ago, to lead the audience to know more about the

remains while using one of such remains to spread this knowledge.

So, the responsibles for this show at CCTV wanted Daliren to look alive and interact with the real anchor, so they relied on production company Camkoon to create

the virtual character. Daliren is a copper sculpture, but it had to become alive to make the interaction with the real person seamless and believable.

Camkoon used a steady-cam to film all aspects of Daliren so it could then be modelled prior to make him move, talk and interact directly with the anchor. By using motion capture and facial capture systems, and combining the result with Daliren`s skeleton created with Unreal engine, they used Braisntorm's InfinitySet to combine all elements together for the show. On top of that, Camkoon also used an infrared light (IR) optical tracking system with the steady-cam to film freely for Daliren and anchor and ensure the correct and accurate perspective matching of all elements.

Since it was pre-recorded, Camkoon just used one InfinitySet workstation with Unreal engine, making the motion and facial capture systems to send its data to Unreal, and then the tracking data from the camera directly to InfinitySet . The final video is the result of combining within InfinitySet all the mentioned elements.

Proving its ability to create breakthrough technology, Camkoon also relied on a proprietary auto-chromakey feature directly developed by themselves, which is able to do the chromakey without the need of using green or blue backgrounds, so in the final content is an interesting show

switching from real footage to a virtual set, because of this technology.

The final result and the impressive effect created with such high-end technology equipment were highly regarded by the CCTV News centre leader. They appreciated the impact of using virtual studio and AR technology to bring a cultural relic to life, and the interaction between the real anchor and Daliren was not only impressive but also facilitated the audience to focus on the show and ensured the information was spread.

Camkoon's CEO Ethan Zhang was pleased not only with the cooperation with Brainstorm, but also with the achievements of this project, as a result of the combination of highly advanced technologies and creative graphics, never seen before in a cultural show.

'Camkoon is so happy with the achievements of this project and the seamless collaboration with Brainstorm, as their graphic solutions and professional support are excellent. We've proudly proven that combining multiple kinds of high-end technology with creative graphics production is essential for being competitive in today's demanding content creation. I hope we will find more and more interesting possibilities in the future together.'

**Ethan Zhang
CEO, Camkoon**