Case Study: Hampton Court Palace

Hampton Court Palace chooses multi projection video experience

Hampton Court Palace is one of the UKs most popular and iconic historic palaces, welcoming over half a million visitors each year. The Palace famously retains a unique mix of architectural styles; reflecting its 500 years of history and the lives of its different occupants (the most famous and flamboyant being Henry VIII). The Baroque rebuild, commissioned by William III and Mary II in 1689, opened another chapter in the Palace's history, with a large part of Henry VIII's Tudor palace being demolished to make way for a magnificent new Baroque Palace in 1700.

Aileen Peirce, Interpretation Manager, Historic Royal Palaces, takes up the story:- "We were looking to replace

Key features

- Lamp-free
- Up to 3,000 ANSI lumens
- XGA and WXGA resolution
- Intelligent Brightness Control
- Quick start and stop
- HD ready

- Free Creston Roomview Express® control software available (LAN models only)
- Extensive connectivity options, including LAN, WLAN, USB (selected models)

an older rather traditional exhibition with an exciting and immersive experience that would tell the story of William and Mary's incredible building project. We wanted it to be flamboyant, intriguing and beautiful to look at, giving visitors a real sense of the Baroque style and introducing the personal stories of the key characters."

Aileen began the process of identifying suppliers to assist bringing the Baroque Story to life in an engaging and dynamic way. They consulted 59 Productions, who proposed an immersive high definition video with multiple projection points that would take the viewer through the journey from design conception, (including architectural design by Sir Christopher Wren); through to the turbulent build itself and finally onto the assembly of the Royal Court at the rebuilt Palace. With two rooms to be furnished. 59 Productions proposed a mix of introductory standard video projection for the first room; moving into a dramatic large scale set in the second main room, comprising of a 180 degrees cyclorama complete with a 1:25 model of the South Facade, including an automated reveal. (A cyclorama is a concaved cloth arc backdrop). Work began and in May 2013 the exhibit, opened for the first time to the public, utilising cutting-edge combinations of audio visual devices; lighting projection techniques; compelling scripts & musical scores and automation. Each presentation lasts 15 minutes; looping continuously on an automated system.

59 Production's, Founding Director & Creative Director on the production, Leo Warner, explains more: "The Exhibit represents a clever combination of techniques but undoubtedly, image projection quality is of paramount importance for the visitor experience. We proposed a







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Aileen Peirce, Interpretation Manager, Historic Royal Palace



relatively new technology using Casio's state of the art ultra bright LED/Laser hybrid models, but it was one that resonated immediately with the Palace team, due to the low maintenance overhead on the multiple projectors required."

Enter five of Casio's LED lamp free Short Throw XJ-ST145 projectors offering crystal clear 2500 lumens to make up the dramatic blended projection onto the 8 metre cyclorama; running alongside three adjoining Casio XJM155 Signature Range projectors to offer 3000 lumens wide-angle zoom projection directly onto the model façade. The short throw projectors were housed just over 2 metres above in a bespoke timber support beam to facilitate the 'edgeblending' that would produce a single continuous image without any visible bands on the 8 metre wide cyclorama. As well as the cyclorama, 59 Productions recreated the south facade of Henry VIII's Tudor palace and projected it onto the model before dramatically knocking it down via projection and replacing it with William III's new Baroque facade. The three Casio XJ-M155's projected colour enriched images from 'inside' the Royal Court, in such a lifelike manner that they 'transported' visitors back into the Baroque era.

"The first thing we noted, even at proposal stage, was that the Casio projectors were guaranteed for their lifetime at approximately 10,000 hours, and were more likely to extend to 20,000 hours or five years of usage, and being lamp free, require no lamp changes and little maintenance overhead." Aileen notes.

They were right to be impressed by the lamp and carbon efficiency that the Casio range offers. Hampton Court's

usage is extremely intensive – the Palace remains open every day of the year bar Christmas Day, from 10am till 6pm, so the instant 'power on and off' and around a 75% reduction in energy costs over traditional projectors remain further valued steps in achieving lower running costs and efficiency from the exhibit. With other lampbased projectors, the maintenance team were finding that lamps would require replacement after an average of 1000 hours, and dust filters had to be maintained and cleaned every three months. This maintenance had to be scheduled outside opening hours, and even after a fresh lamp was inserted, degradation of the light source started to occur. With the Casio models, simply there is no lamp to replace; no filters to clean and ongoing, continuous ultra bright light is assured. The lower total cost of ownership is so significant that the Palace team is looking to expand Casio's LED/Laser technology throughout the Palace as traditional projectors reach their end of life.

"We're truly delighted to be able to bring history to life using cutting edge technology that works reliably and lowers maintenance costs. Everything we have achieved with the Baroque Story experience; from the control units working via ipads to the automated lighting circuits; to the Laser/LED projection; serves to create a wonderfully rich immersive experience for our visitors, transporting them back to the time of William III and Mary II and we're delighted the response from visitors has been very positive." Aileen concludes.

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