

# THE FIJI COMMONWEALTH TRAINING CHAMPION'S TRAINING IN ENGLAND

WEEK ONE



## *Canterbury Cathedral*

Being one of the oldest and most historic Christian structures in England, it was a privilege to witness the restoration works preserving this UNESCO World Heritage Site, inscribed as a Cultural and Historical Landmark in 1988.

Built over 1,400 years ago, Canterbury Cathedral blends Romanesque and Gothic styles. The Cathedral's design features a cruciform basilica with a nave, transepts, and choir, topped by the Bell Harry central tower which is 72 meters tall (completed 1498). Measuring 160 metres in length and 47 metres in width, the cathedral showcases intricate stained glass windows dating back to the 12th century. One of only four surviving copies of the Magna Carta was made for Canterbury Cathedral, a connection to this foundational legal document that distinguishes the Canterbury Cathedral from other religious sites. A remarkable 12th-century water tower and hydraulic system supplied the monastic complex.

## *Lessons Learned*

**Reinstating polychromy involves historical research, technical analysis, conservation decisions and skilled application techniques—marking a shift from earlier philosophies favouring bare stone. By recreating the vibrant colours that once adorned historic spaces, conservators offer visitors an authentic glimpse of original appearances whilst preserving essential cultural heritage for future generations.**

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## *Maintenance and Restoration*

Purcell Architects played a key role in the conservation of the Christ Church Gate, a Grade I-listed main entrance to the Cathedral Precincts which was built between 1501 and 1521. The Christ Church Gate combines late Gothic with early Renaissance architecture and was the last major piece of construction before the Reformation.

In the 1950's the Gate began to significantly deteriorate,, restoration work, which began in 2018, involved structural repairs and the revival of the Christ Church Gate's intricate carvings, gilded stonework and reinstating the polychromy - the restoration of the vivid multicoloured architectural details, elements, sculptures and surfaces.

## *A Link to the South Pacific*

The Seven Martyrs of the Melanesian Brotherhood, an icon by Luiz Coelho, honours the seven members martyred in the Solomon Islands in 2003 whilst trying to act as peacemakers during ethnic tensions. The icon resides in the Chapel of Saints and Martyrs of Our Own Time within Canterbury Cathedral with the depicted Bible scripture "Matthew 5:9 Blessed are the Peacemakers". The Church of England commemorates the Seven Martyrs on the 24th of April each year.



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## *Lessons Learned*

**Zigzag wooden groynes and 10-tonne granite boulders form Hurst Castle's first-line coastal defense system, exemplifying the various disciplines involved in heritage conservation. The groynes' strategic pattern slows powerful longshore drift, trapping vital sediment to maintain the shingle beach. Meanwhile, the massive boulders remain in place to absorb and disperse wave energy that would otherwise undermine the castle's historic foundations and façade.**

## *Hurst Castle*

Braving the morning winter cold on a fiberglass boat to visit the English Heritage coastal fortress offered valuable insights into the evolution of coastal defense systems and the challenges of preserving historic structures in vulnerable maritime environments.

Built in 1541, Hurst Castle was strategically positioned to guard the western approach to the Solent—the strait separating the Isle of Wight from mainland England—playing an active defense role through the world wars. The castle's precarious position on a shingle (pebbles and cobbles) spit (an elongated landform that extends from the mainland) has rendered it perpetually vulnerable to wind and waves. Now, with altered longshore drift patterns, rising sea levels, and increasingly frequent storms, Hurst Castle stands as one of England's most challenging heritage sites to protect and is emblematic of the issues posed by climate change to heritage conservation.



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## *Structural Safeguards*

After Hurst Castle's East Battery collapsed in 2021, English Heritage installed monitoring systems including GPR, laser scanning, and 3D LiDAR to track structural issues in masonry, ceilings and archways. Steel props and grout stabilized foundations, while sensors monitor coastal defenses and environmental conditions in storage areas. These measures address immediate vulnerabilities and long-term climate threats to the historic coastal site. Information panels shield archways to prevent visitor injuries from falling debris during future potential collapses.

## *Coastal Connections*

Dr Alex Kent leads the Coastal Connections project which uses Hurst Castle as a primary case study after it was placed on the World Monuments Watch list in 2022 after the collapse of the Castle walls due to coastal erosion. The castle sits on a shingle spit that is retreating due to interrupted natural coastal processes. However, the zigzag wooden groynes and 10-tonne granite boulders are part of the sympathetic first-line defense coastal engineering systems. The project aims to create a network of professionals dealing with similar coastal heritage conservation challenges worldwide.

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## *Lessons Learned*

**Between 1906 and 1911, Winchester Cathedral underwent critical underpinning to address structural instability caused by its foundation on soft peat. Engineers and architects implemented a multi-step intervention. Trenches were dug around the walls, and Diver William Walker worked underwater to place concrete bags and blocks under the foundation, while concrete injection strengthened the base. Continuous monitoring ensured the cathedral's stability was restored.**

## *Winchester Cathedral*

The grey skies faded within the golden interiors of Winchester Cathedral, which exemplifies Romanesque and Gothic architectural evolution. It holds the record as the longest medieval cathedral in the world, spanning 558 feet (170m), surpassing all other Gothic cathedrals of its era.

The cathedral's limestone construction presents ongoing conservation challenges, particularly subsidence issues that required early 20th century underpinning by diver William Walker, who worked underwater to stabilize foundations built on waterlogged peat. Francis Fox and Thomas Jackson implemented retrofitted flying buttresses, innovative vaulting systems, and the wooden vault ceiling—designed to reduce weight on fragile foundations. Conservation efforts focus on limestone deterioration, roof integrity, and stained glass preservation while maintaining the cathedral's structural integrity for future generations.



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## *Sympathetic Accessible Interiors*

Winchester Cathedral has implemented a light-illuminated Stannah passenger lift and rampways, to enhance universal accessibility while preserving its historic architecture. The lift, part of a £11.5 million project, seamlessly integrates into the medieval structure, featuring glass cladding with bronze mesh and landing doors that maintain natural light and aesthetic harmony with the cathedral's golden tone ambience. Rampways provide step-free access to exhibition spaces and learning facilities, ensuring inclusivity for all visitors. These seamless interior interventions align with universal design principles, balancing modern accessibility with the cathedral's heritage.

## *Structural Safeguards*

Winchester Cathedral's vaulted ceilings incorporate steel structural braces to ensure stability. The steel braces are carefully integrated to support the ribbed vaults, distributing weight evenly and preventing structural stress. For the columns, which are not perfectly upright due to centuries of settlement, engineers employed non-invasive monitoring and reinforcement techniques. These include precision steel ties and braces to counteract lateral forces while preserving the original stonework.