

# CASE HISTORY

DON'T  
TEAR IT  
DOWN...  
ANCHOR  
IT DOWN!

## Harlech and Conwy Castles

**FALCON**

Harlech Castle and Conwy Castle, both situated in North Wales, were built in the late 13th century by James of St George, Edward I's master castle builder. Considered two of the most impressive castles in Wales, loose stonework needed to be stabilised at both sites. Both are world heritage sites and are under the control of CADW – the historic environment agency within the Welsh Assembly.

### Stabilising Loose Stonework

Following the successful completion of a similar contract at Montgomery Castle, Falcon was awarded the contract to stabilise the loose stonework at Harlech and Conwy Castles by CADW.

CADW's Consulting Engineer, Messrs. RVW of Llandrindod Wells, specified the use of the Cintec anchor system, which has proven a reliable method of preventing the loosening and deterioration of stonework.



Harlech Castle



Conwy Castle

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### Cementitious Anchors

The high-tech anchor system is considered acceptably compatible due to the cement based Presstec grout in which the stainless steel anchors are embedded. The areas of stonework to be stabilised were carefully diamond drilled and then stainless steel sock anchors were installed in each hole.

The anchors were then injected under pressure to inflate the socks with Presstec grout. Once the anchors are fully inflated, the grout seeps through the fabric sleeve which forms the sock and bonds to the surrounding substrate.

Falcon has a proven track record in installing a range of specialist anchor and repair systems, including Cintec anchors for a variety of conservation projects and on numerous heritage sites.



Diamond drilling to install anchors to secure a lintel over the doorway to the prison tower at Harlech



Installing anchor into diamond drilled hole to secure stones forming the floor/ceiling in the kitchen tower at Harlech



Diamond drilling to install anchors to secure stonework to high level chimney stack

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