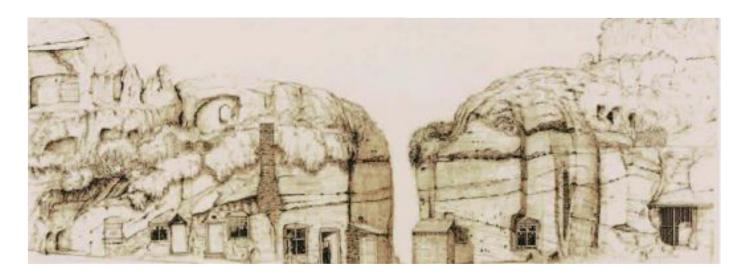
Case History



Holy Austin Rock - Kniver, Staffs, England, UK



Restoration of the lower cave dweelings at Holy Austin Rock, Kniver Edge

The name 'Holy Austin' is said to be after a hermit who lived near the site during the 16th century. This is the earliest known reference to the occupation at Holy Austin rock.

In May 1993 the National Trust completed the first phase of restoration in their imaginative scheme to restore the nationally important cave dwellings at Kinver Edge, Staffordshire. Since the rock houses were cleared of their last occupants, as late as the 1950's, the rock structures had deteriorated and several of the caves within the three-level complex of up to a dozen separate dwellings had become dangerous. In 1990, the Trust took a bold decision to re-build the upper rock houses and to bring the interior up to modern standards for a Custodian to control the area immediately around Holy Austin Rock.

The Lower Caves were still a serious structural concern. They had been crudely bricked up by the local Council in the 1950's for public safety, as there had been extensive rock falls from the ceiling of the large central cave – an amazing tunnel known in later years as the Ballroom.

With the financial support of the local Management Committee, the national Trust once again commissioned the Architect for work to secure the Lower Caves, and also to restore the facades and one or two of the rooms to their original design.

The unstable condition of the soft red Permian sandstone required careful and often dangerous work inside the caves by the Contractor, G T Wall and Sons of Stourbridge, to secure the falling ceiling slabs.



External view of main entrance to restored dwelling.



Internal view of front room, above cave.

A major structural defect, resulting from the internal failures, was the large vertical fissure and associated cracks, just behind the eastern façade, which had widened in recent years due to weathering and root penetration. The structural Engineers, Ascough and Associates, say the danger of the whole façade falling outwards, as a 1 m thick slab, and it was decided to use modern rock bolting techniques to anchor this slab back to the stabilized rock including the new foam concrete fill, just above cave ceiling level.

The drilling and grouting of the rock anchors was carried out by A.P.B. Group Limited of Stoke-on-Trent in August 1997. The Specification was for 5 Cintec rock anchors 3-4m long, and 20mm diameter, 316 grade stainless steel rebar. The anchors were grouted into 40mm – 50mm diameter holes drilled with air flush rotary rock drills. In addition to the main rock bolts, several more ceiling bolts were installed under the Engineer's direction using 16mm diameter anchors of varying lengths.

The Lower Caves were completed in November 1997 and the National Trust has now raised the status of the caves giving them a detailed entry in the National Trust handbook.



Adjacent caves in unrestored condition.



Roof bolt support to ballroom ceiling.



The completed row of cave dwelings ready for occupancy.

