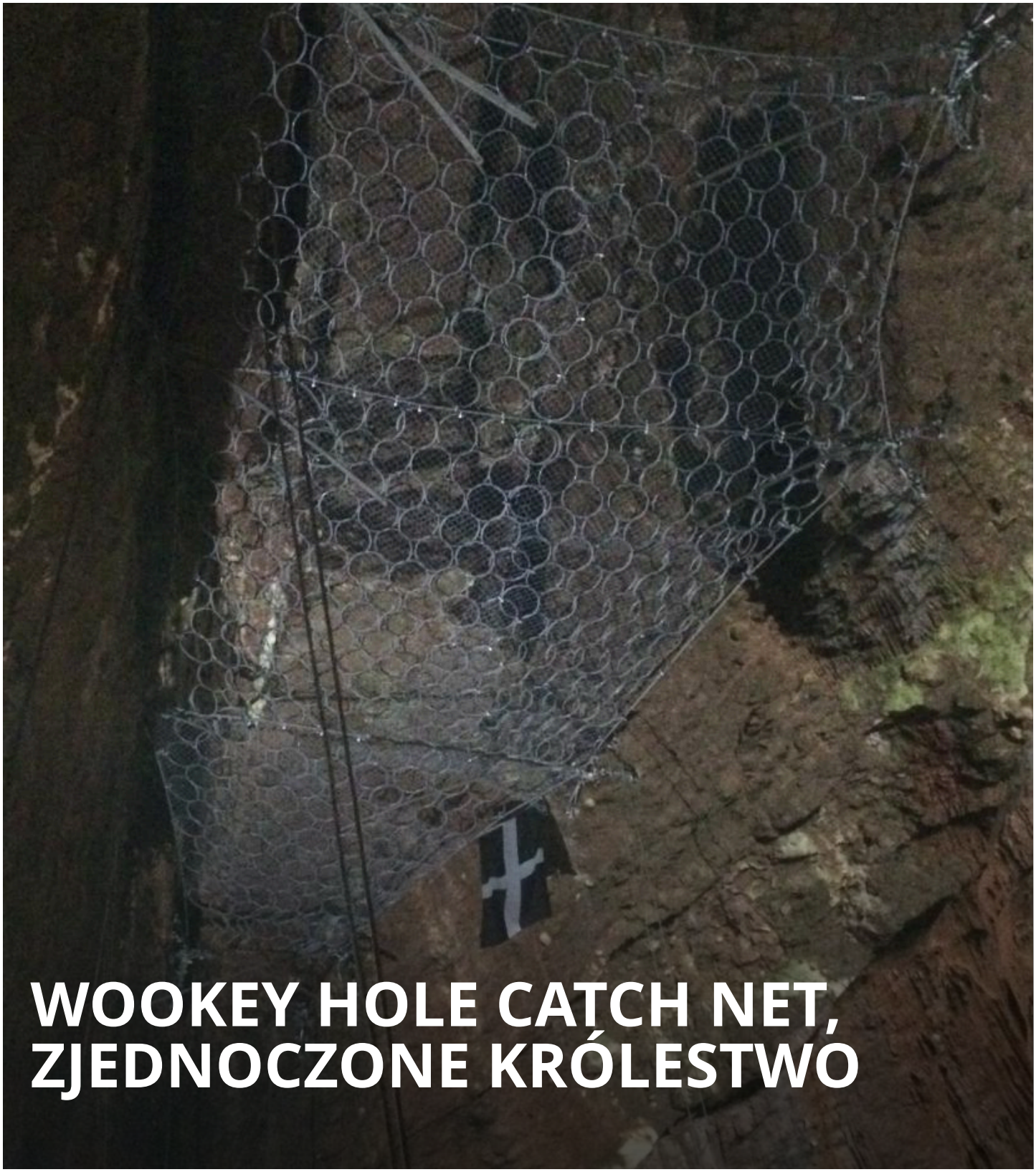

WOOKEY HOLE CATCH NET, ZJEDNOCZONE KRÓLESTWO

Ochrona przed obrywami skalnymi

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Safety is our nature

Wookey Hole Catch Net

Ochrona przed obrywami skalnymi

Projekt	Wookey Hole Catch Net
Lokalizacja	Wookey Hole Caves, Somerest
Kraj	Zjednoczone Królestwo
Rok Instalacji / montazu	2015
Inwestor	Wookey Hole Caves
Projektant	Frederick Sherrell Ltd Consulting Engineers

Opis sytuacyjny projektu

Frederick Sherrell Ltd Consulting Engineers approached us to ask, “is it possible to create a horizontal catch net to catch and hold a potentially unstable 10 ton boulder?” The client is Wookey Hole Show caves, they were planning to bore a tunnel from an existing cave to a cave that previously was only accessible to divers. There was a small risk that the vibration from the works could dislodge a 10 ton block in the roof of the currently accessible cave.

To carry out the works all tools, equipment, anchors and all components of the catch net had to be carried into the cave system by hand. A specialty rope access contractor with extensive experience in caves was engaged to assist with installation of the upper and lower access ropes. They first had install bolts for the rope access, before installing the anchors and the catch net. The anchors had to be drilled and installed using hand held equipment so the anchors had to be short enough for easy handling. To add to the complication of using short anchors the bedrock in the cave is a Dolomitic Conglomerate with a mean strength of only 35-40MN/m2. Following pull out tests we discovered that we would be required to design for a max load of 40kN per anchor.

Opis zastosowanego rozwiazania

Geobrugg engineers designed a solution using our ROCCO 12/3/350 ring net to catch the block. Given the requirement to hand-carry and manually winch the net to the roof, we customized the ring net panels to allow for easy maneuverability and easy installation based on the location of the ropes. To take load from any impact Geobrugg installed five transmission ropes across the width of the cave. Geobrugg installed a U300 brake at each end of the ropes. Perimeter ropes were installed to give shape to the net.

Collaborating with the designers at Frederick Sherrell we designed a novel solution for installing suitably safe anchors given the weakness of the rock. In total 14 sets of anchors were installed. The anchors were paired together using wire rope. Two pairs were then attached to the U300 brake at each anchor point.

Upon project completion the contractor commented that the system drawings were clear, Geobrugg's engineer was accessible if there were questions, and the installation was extremely straightforward and far less complicated and time consuming than he had expected. He was impressed with this level of service and drawings that were provided for a custom designed product.

Wytrzymałość systemu	500 kJ
Wysokosc ochronna systemu	3.0 m, 7.0 m
Dlugosc systemu	6 m - 15 m

W celu uzyskania dokładniejszych informacji skontaktuj się z naszym Przedstawicielem.

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