

This 14th-century skeleton may have been in a car crash

Archaeology can reshape our understanding of even well-recorded historical events. **K.R. Callaway** reports

Today, Stirling Castle is a tourist destination nestled in the quiet hills of Scotland but in 1304, it was a war zone. That's when, after years of off-and-on fighting, the English captured the castle during a violent siege. Now, new research suggests that one of the shattered skeletons from this battle might be the first confirmed victim of the terrifying war catapult known as the trebuchet.

The extensive injuries to this smashed skeleton, called Skeleton 150 by archaeologists, suggested that the bones were most likely broken by the high-speed and high-force impact of a trebuchet projectile. The finding was presented at the 25th meeting of the Paleopathology Association, which was held earlier this month in Berlin, Germany.

"I was piecing all of these things together and then asking, 'Well, what's happening in medieval Stirling that could explain this?'" said Jo Buckberry, a biological anthropologist

at the University of Bradford in the UK, who presented the finding. "The obvious answer is the use of the trebuchets."

The skeleton was excavated in 1997, when Historic Environment Scotland, the country's conservator of heritage sites, was refurbishing the palace. Skeleton 150, alongside several others, was found under the floor of the castle's royal chapel. This burial place was unusual, and suggested that those conducting the funerals were unable to access typical burial places outside the castle walls. This indicated to the researchers that the bones might date to the 1304 battle after which the English took control of Stirling.

Using X-rays and microscopy, Buckberry and her colleague Patrick Randolph-Quinney, a biological anthropologist at Uppsala University in Sweden, discovered that Skeleton 150 had complex, zigzag-patterned fractures unlike anything they'd ever seen in medieval

skeletal remains. The injuries were similar to those seen in modern victims injured in car accidents. It was clear that the skeleton had experienced a high-speed and forceful blow.

The researchers considered whether the victim might have fallen from atop the castle

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walls but his twisted, broken legs showed that he had been standing during the impact.

The only explanation that seemed to fit all the injuries was one of blunt-force trauma from an extremely heavy, yet fast-moving, projec-

tile. Researchers suggest that this projectile, launched from the strongest of the medieval war catapults, the trebuchet, might have hit Skeleton 150—likely a defender of the castle in his 20s or early 30s—from behind, as he ran for cover.

"It was a huge, huge trauma and, thankfully, instantaneous death," Buckberry said.

Until firearms were popularised in Europe, in the decades after the 1304 siege at Stirling Castle, trebuchets were one of the main weapons of war. Soldiers inserted a projectile, often a boulder, into a large sling on a pivoting arm, then dropped a heavy counterweight that propelled it toward its target at extremely high speeds. The weapons were primarily built to break down fortified walls but their damage was indiscriminate, said Michael Fulton, a historian and archaeologist at Western University Canada in Ontario.

"We have lots of historical records or anecdotes of casualties of this kind of nature,

of stones being tossed over a wall, either from inside out or outside in, and some unfortunate person just getting smushed," he said.

And while no anecdotes about injuries like these at Stirling Castle survive in the historical record, accounts from the time do make it clear that trebuchets were used during the 1304 siege. About a month after King Edward I of England arrived at Stirling Castle, the Scottish defenders offered to surrender but the king rejected them. Instead, he demanded that the siege continue until he'd had a chance to finish building and field testing the "Warwolf", purported to be among the largest trebuchets ever built.

While the researchers aren't certain that Skeleton 150's injuries were inflicted by the Warwolf itself, they said these remains offer a very rare look into the violent reality of combat during the medieval period.

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