

MUSKETBALLS, MORTARS AND MATCHLOCKS

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What do you think of when you think of archaeology? For the majority of people the answer is simple- 'musketballs'. If that wasn't the first thing in your head, there's no need to fret; 'fragmented portion of a 17th century grenade' is also a perfectly acceptable answer. Ok, none of the above is true. But for me it is objects such as these that make up my Day of Archaeology.

I work as Operations Manager for a commercial company, Headland Archaeology (Ireland) Ltd. The majority of my work involves overseeing all the projects we undertake and making sure they run smoothly, are carried out to a high standard and progress as efficiently as possible. However, I also specialise in 'Conflict Archaeology', a field of study which explores evidence for the forms and effects of conflict on past populations. Today is a 'Conflict Archaeology' day.

The material I work with the most relates to conflict in 16th and 17th century Ireland. This was an exceptionally bloody period in Irish history. The Elizabethan Conquest of Ireland took place in the second half of the 16th century, while the 1640s witnessed eleven years of war, culminating in the Cromwellian intervention on the island. Later still the War of the Two Kings was fought between William III and James II's forces. The conflict artefacts and conflict architecture left behind on sites from this period can tell us much about the personal experience of individuals during these troubled times. What was it like to be a soldier in one of these armies? How did they operate? What affect did the wars have on the civilian populace?

Today I am working on an assemblage of military artefacts from a Castle site which was besieged in 1653, when Parliamentarian forces bombarded the site and forced the Irish defenders' surrender. Although there are some historical accounts of the siege, many details of the engagement remain unknown. This is where the artefacts come in. It becomes quickly apparent to me as I trawl through nearly 200 iron ball fragments that the castle was extremely heavily bombarded. The sheer number of fragments is unusual in Irish archaeology- it is the highest concentration of artillery projectiles from a conflict site I have yet come across in the country.

What can they tell us? They are all heavily damaged, with only one complete spherical ball surviving. This suggests that the projectiles shattered as they struck masonry, or split into deadly shrapnel as they exploded. Their form tells us that the Parliamentarians used at least two main types of projectile; solid iron balls and mortars. The solid shot was intended to break down the walls of the castle, while the mortars (hollow iron spheres filled with powder) would explode and fragment as they rained down on the defenders.

I am currently analysing the size of the fragments to try and tell what type of artillery piece fired them. Although most iron balls are today usually called 'cannonballs', in the 17th century a 'Cannon' was a specific type of gun which fired a particular size of ball. Many other types existed, with names like 'Culverins' 'Sakers' and 'Falcons'. These fired different sizes of ball over varying distances. Identifying the type of gun can help us identify how far away the besiegers may have been from the castle, and also tell us how difficult it was to get them into position. For example, some of these guns required dozens of oxen to haul them around the countryside.



'17th century grenade and lead shot'

And what of the defenders? The majority survived this siege and were able to surrender, but the castle was destroyed in the bombardment. Among the military artefacts that relate to them are lead musketballs (also called lead shot) and weapon fragments recovered from the rubble. The size, shape and weight of the musketballs can tell us what types of gun they were used in, provide information about how they were manufactured and also suggest if they have been fired or not. The examples from this site appear unfired, so they may have been dropped or lost by the defenders. This site is unusual in that it has also produced part of the firing mechanisms from some of the defender's weapons, most likely destroyed during the bombardment. These fragments are from matchlock muskets, a type of gun that used a lit piece of cord to fire the musketball.

When I have finished the technical analysis of the material (a process which will take a few days) it will be possible to build a picture of the siege. I will be addressing what types of artillery the Parliamentarians brought with them, how this was used and transported and where it might have been fired from. From the defenders viewpoint it should be possible to suggest how the bombardment was experienced by the men within the castle, as well as talk about how they were prepared to meet the onslaught. This is all in the future, however, and for now I am immersed in the technical analysis of each of the artefacts.

So, this is how I am spending my Day of Archaeology, 29th July 2011! Every object I am handling was deposited over a handful of days 358 years ago, in what must have been an extremely dramatic and traumatic event in the lives of all those who were present. For some these objects represent their final moments. It is an honour and privilege to deal with these artefacts, as by doing so you are literally 'touching history'; the results of the analysis itself helps bring this history to life. It is certainly one of the most fascinating ways to spend a day that I can think of!