Finding Felix: understanding Gibraltar's Second World War defences

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Figure 1. Map of Gibraltar showing the different survey sectors: the northern front (NF), the eastern (ES), southern (SS) and western (WS) seaboards, and a fifth sector comprising the upper rock (UR).

Using the 'Defence of Britain Project' (2002) as a template, the Fortress of Gibraltar Group is a volunteer organisation of archaeologists, historians and enthusiasts operating together with the Gibraltar Heritage Trust to record data concerning military infrastructure on the British Overseas Territory of Gibraltar (Figure 1). While Gibraltar's pre-Second World War military architecture has been the subject of considerable research (e.g. Hughes & Migos 1995; Fa & Finlayson 2006; Sáez Rodríguez 2006), much less work has been carried out on the fortifications built between 1939 and 1945. The reasons for this are varied but include factors such as the structures' perceived lack of antiquity, limited aesthetic appeal and the initially temporary nature of these constructions. Be that as it may, as the living witnesses to the Second World War pass away,

https://doi.org/10.15184/S2978855200900246 Published online by Cambridge University Press

the need to record the material remains of this conflict becomes ever more important.

Long considered an indomitable fortress, Gibraltar was believed to be secure from the threat of a land invasion (although the dubious neutrality of neighbouring fascist Spain and the geopolitical realities following the fall of France in 1940 changed this belief). Indeed, earlier in the twentieth century, the authorities had "finally decided, in 1906, that the defensive arrangements at Gibraltar would be made on the basis that there was no prospect of a formal siege by land" (Hughes & Migos 1995: 134). In effect, this meant that in 1939 —aside from the installation of anti-aircraft defences (Fa & Finlayson 2006)—the majority of Gibraltar's guns faced towards the sea, in a bid to deny enemy shipping access to the Strait zone. In this, the military authorities were following an out-dated concept of Victorian military thinking that had sufficed for the First World War but which was to reap a calamitous harvest in the Second, including the fall of Singapore in early 1942 (Blackburn & Hack 2003).

Although never actually realised, Operation Felix was the planned German invasion of Gibraltar. Defensive construction on the Rock during the Second World War can be interpreted as an extreme reaction to the perceived Axis threat and the more global nature of that particular conflict. Indeed, the transformation of Gibraltar from a nineteenth-century naval fortress to a twentieth-century Cold War bastion was one of the unintended consequences of this huge project of construction. Even though many of Gibraltar's defences have been interpreted as a direct reaction to the threat of Operation Felix, archaeological survey of Second World War infrastructure on the Rock reveals a much more nuanced picture of these constructions.

A general timeline for Gibraltar before and during the Second World War can be divided into four major phases: pre-September 1939; October 1939–March 1941; April 1941–December 1942; and 1943 onwards. These are divisions that can be ascribed with hindsight; it is unlikely that the main actors in the conflict would have been aware of them.

Pre-September 1939 construction entailed defences against the relatively new threat of aerial attack, for instance air raid protection shelters and anti-aircraft (AA) defences. The period between October 1939 and March 1941 was when an Axis land attack on Gibraltar was deemed most probable to occur (Burdick 1968; Garcia 1979). This possibility precipitated a substantial amount of military construction of varying quality on the Rock. A continuing phase of construction followed between April 1941 and December 1942, eventually directed against the possibility of a pre-emptive strike on the preparations in Gibraltar for Operation Torch —the Allied invasion of French North Africa (O'Hara 2015). A final phase saw Gibraltar's role in the war recede following the Allied invasion of Italy in 1943, culminating with the end of military tunnelling in 1967 with the completion of the Molesend Way tunnel, thereby creating a thoroughly modernised Cold War Gibraltar. (Molesend Way tunnel was built so that ammunition could be transported to Fosse Way Ammunition Depot without having to access public roads.)

Given the hurried pace at which military construction was undertaken during the period between 1939 and 1943, the lack of historical documentation is unsurprising. In such a situation, archaeological survey is a useful tool for establishing distinct phases. With only fragmentary documentary evidence available—in many cases the original Second World War military location codes are unknown—we adopted a predetermined geographical framework to sort and list the different structures. The Rock has been divided into five unequal sectors, denoting the northern front (NF), the eastern (ES), southern (SS) and western (WS) seaboards, with a fifth sector for the upper rock (UR) (Figure 1).

Survey was conducted on foot, recording information including site code, location, GPS coordinates, description, comments and the state of preservation supported by scaled photographs from various perspectives. To date, work has been undertaken along the eastern seaboard (ES) and the upper rock (UR) sectors. Yet even this initial survey has revealed a complex array of military infrastructure that includes guard posts, pillboxes, reinforced concrete forts, AA gun emplacements, telegraph positions and defensive electric lights.

https://doi.org/10.15184/S2978855200900246 Published online by Cambridge University Press

Furthermore, we contend that it might be possible to divide, archaeologically, the construction phases associated with Operations Felix and Torch (September 1939–December 1942). A number of the Second World War defences demonstrate hasty and slipshod construction, representing, perhaps, eleventh-hour efforts against the threat of Operation Felix, including the use of earlier defences or walls to create gun positions, machine-gun nests, observation posts and badly sited and weak positions on isolated outcrops (Figure 2). The concrete used for these structures was also substandard, with added protection provided by the reuse of obsolete armour plating or even reinforced metal doors (Figure 3). The engineering knowhow employed on these structures seems to have been minimal.



Figure 2. A) Machine-gun nest within an eighteenth-century gun embrasure (WS); B) 4' naval gun in an anti-tank role located in an eighteenth-century tunnel gun embrasure (NF).



Figure 3. Armoured door or plating used for roof of machine-gun nest (WS).

By way of contrast, other constructions seem well planned and of high-grade reinforced concrete. Many of these appear to have been constructed or modified from pre-existing UK types or models (Ruddy 2003). For

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instance, the Type 28 infantry variant (ES-0001) found protecting the southern approaches to Sandy Bay, or the modified Pentagonal pillbox (ES-0025) found on Devil's Tower Road near Eastern Beach and the airport (Figure 4). In some cases, the two types of construction—slipshod and well made—are found superimposed, as occurs at Blackstrap Cove (ES-0020), where two later, possibly variant, Vickers machine-gun emplacements are built on top of an earlier stone-clad pillbox (Figure 5).

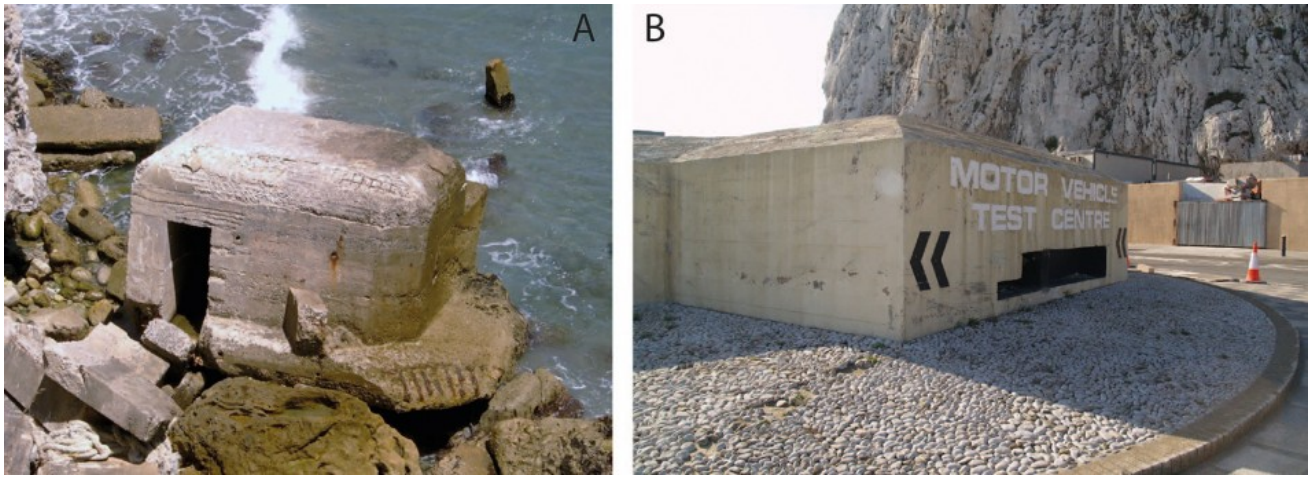


Figure 4. A) (ES-0001): Type 28 infantry variant at Sandy Bay; B) (ES-0025): modified Pentagonal pillbox.



Figure 5. Superimposition of construction at Blackstrap Cove. (ES-0020): two variant Vickers medium machine gun (MMG) emplacements on top of an earlier, stone-clad pillbox.

Nevertheless, we should not discount the distinct possibility that differences in construction technique might have more to do with the personnel employed during construction—regular soldiers *vs* engineers—than with chronology. Only further detailed survey will elaborate on these differences in construction and the factors that determine them. What is, however, apparent from even this limited sample is that aside from the better-

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known type of reinforced concrete positions; it is increasingly obvious that space and the irregularity of Gibraltar's geography conditioned an array of unique types of pillboxes, bunkers, machine-gun nests, observation posts and other structures. This uniqueness has to be recorded before it is lost to urban development and the vicissitudes of time.

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