Battles on Chalk: the Geology of Battle in Southern England during the First Civil War, 1643-1644

Trevor J. Halsall

**ABSTRACT:** The impact of geology on 17th century warfare is illustrated by four battles in the English Civil War. Actions at Roundway Down and Cheriton and the two battles at Newbury took place within a sixteen month period from 1643 to 1644. At the strategic level, the Chalk outcrop significantly constrains the route of important lines of communication in southern England. Roads between Swindon and Newbury are a case in point; the failure of the Parliamentarian Army to secure its line of march along such well drained tracks led directly to the First Battle of Newbury. The course of that engagement was steered by the geomorphology of the battlefield. Battlefield tactics and their outcome were also constrained by geology at the Second Battle of Newbury, the principal action taking place on a restricted front on the low ridge between the Lambourne and the Kennet. The Parliamentarians completed a flank march by night to avoid the tactical difficulties imposed by the terrain, yet their conduct of the battle was less successful. At Cheriton a dissected erosion surface on the Chalk provided a sound defensive position for Hopton’s Royalist troops in March 1644, but unfortunately his junior officers abandoned their position to engage the enemy on lower ground. The latter proved to be a killing field on which the Royalist cavalry was destroyed. At Roundway Down the Upper Greensand escarpment to the Parliamentarian rear converted the defeat of their horse into a disaster as they retreated from the field.

1. Introduction

Terrain plays a crucial role in the conduct of warfare. Geological factors including lithology, structure, hydrogeology and erosional history are fundamental influences on key terrain attributes which include geomorphology, drainage, vegetation patterns, land use and the distribution of mineral resources. As such, it follows that geology is of fundamental importance in warfare. In recent papers, I have demonstrated how geology was significant in determining the course and outcome of a number of British battles in the 14th, 15th, 16th and 17th centuries (Halsall, 2000a), as well as constraining the design and construction of medieval fortifications (Halsall, 2000b).
Figure 1. The location of military actions in central, southern England during the Civil Wars, in the context of the geology of southern Britain (after British Geological Survey, 1979). A, Aldbourne (skirmish, 18th Sept. 1643); B, Newbury (1st Battle, 20th Sept. 1643, 2nd Battle, 27th Oct. 1644); C, Cheriton (battle, 29th March, 1644); D, Roundway Down (battle, 13th July, 1643); E, Lansdown (battle, 5th July 1643)
2000b). The Civil Wars between King and Parliament in Britain, in the mid 17th Century, is susceptible to such analysis, and the major battles in central southern England (Figure 1) are a case in point. The contribution of terrain and its underlying geology at Lansdown (5th July 1643) has already been described (Halsall, 2000a). This article focuses on the other four important battles in the South: Roundway Down; 1st Newbury; Cheriton and 2nd Newbury.

These engagements are selected to demonstrate how, in different ways, terrain can influence the location, course and outcomes of battle, at different stages in the developing action, within a narrow time frame of history. All four battles took place between July 1643 and October 1644, and involved opposing armies using essentially similar equipment and tactical doctrine, with neither side having an overwhelming numerical advantage. They took place within a relatively small area, and, with the exception of Lansdown, were the only significant engagements in that area between the 13th century and the present day. However, the four battles are each in their own way unique. Two (1st and 2nd Newbury) resulted in the victory of the protagonist adopting an essentially defensive tactical stance. At Roundway Down the attacking side was victorious, while at Cheriton the outcome was essentially decided by insubordination. All four were influenced, in one way or another, by the outcrop of the Chalk. Though fought in the same area, they were each part of a different campaign, and each the culminating and strategically important, if not decisive, action in that campaign.

Rather than describe the four battles in chronological order, they are considered in terms of the stages of battle when terrain, and therefore geology, proved to be most critical to the ensuing action. Namely, in: (1) campaign strategy and the approach march (1st Newbury); (2) battle strategy and grand tactics (2nd Newbury); (3) tactical deployment and the outcome of insubordination (Cheriton); and (4) during the retreat of defeated troops (Roundway Down).

The four battlefields discussed are covered by three 1:50,000 sheets in the Ordnance Survey Landranger Series; Roundway Down by Sheet 173, the 1st and 2nd Battles of Newbury by Sheet 174, and Cheriton by Sheet 185. Eight character grid references are provided for key locations on each battlefield, using standard Ordnance Survey convention, which provide an accuracy to within 100 m.

2. The impact of geology on strategy and the approach march: the First Battle of Newbury, September 1644

Good roads were of great importance to commanders during the Civil War. The supply trains and horse drawn artillery of the time were heavy and cumbersome, easily becoming bogged down and immobilised in difficult going, such as that offered over poorly drained clay substrates in wet conditions. In many places the routes adopted by ancient Roman roads were still among the best available in 17th century England, as they typically followed a direct
Fields of Battle
Terrain in Military History
Doyle, P.; Bennett, M.R. (Eds.)
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