

Terrain in Military History: an Introduction

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According to the *Concise Oxford English Dictionary*, terrain is defined as a 'tract of land as regarded by the physical geographer or the military tactician'. Military considerations are therefore at heart of any definition or exploration of terrain, and it is therefore unsurprising that most of the methods of terrain evaluation are born from military needs (Whitmore, 1960; Beckett & Webster, 1969; Parry, 1984; Mitchell, 1991). As a concept terrain is, therefore, something that encompasses both the physical aspects of the earth's surface, as well as the human interaction with them. Consequently, the study of terrain is by necessity multidisciplinary in nature, and can involve geology, geomorphology, hydrology, meteorology, agriculture, and civil engineering.

Terrain underpins military engagement, and therefore the study of historic battles. In any military action there are two basic levels of engagement: strategic, and tactical. Strategic considerations ultimately influences decisions to engage in warfare, and underpin war aims. Strategic assessments of terrain concern the disposition of large-scale geographic features, the location of urban centres, resources — minerals, oil, water, for example — transport systems, lowlands, uplands, rivers and oceans (Falls, 1948; Mitchell & Gavish, 1980; Rassam, 1980; Nathanail, 2000). Tactical assessments of terrain are associated with the prosecution of battle in the pursuance of strategy. Clearly, once a battle is entered into, then all aspects of the terrain may be employed by astute commanders, and many examples exist where geology, geomorphology or meteorology have combined to defeat an attacker or help a defender (Winter, 1998). Despite the widespread recognition of the importance of terrain within military action, it has rarely been used as an historical tool to help deconstruct events, actions and outcomes of military engagements, yet clearly its potential to impact on our understanding of such actions is considerable. In recent years, however, the relevance of terrain as a tool in the analysis of historical engagements has gained some momentum (e.g. Doyle & Bennett, 1997, 1999; Rose & Nathanail, 2000) and it is hoped that this volume will continue this trend.

Historical and cultural resonances from contested landscapes are also of importance, having anthropological significance in addition to providing an archaeological presence. These aspects may have actively controlled the site of engagement, for example according to ancient rite or custom; may play a part in the creation of a sacred or revered site of action, a process that continues through memorialisation to the present day; and ultimately may

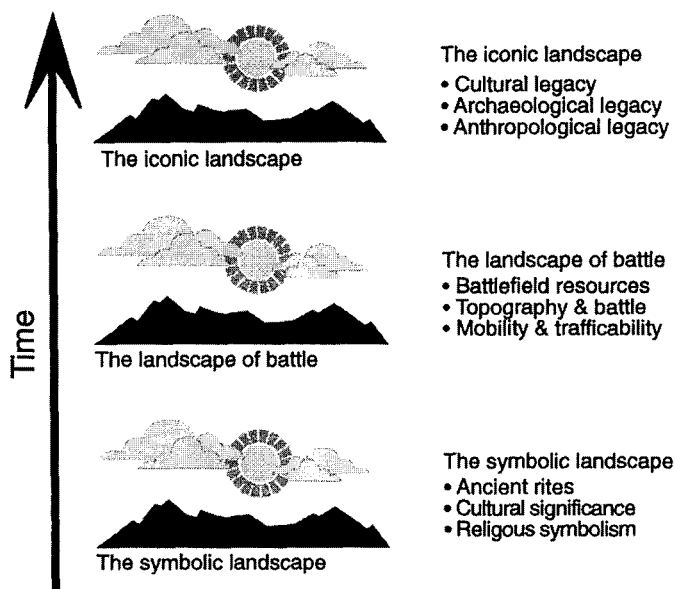


Figure 1: Conceptual model of terrain and military history

have had a role in the restoration of a devastated landscape after battle (e.g. Clout, 1997, 1999; Childs, 1998; Saunders, 2000; Freeman & Pollard, 2001). These aspects are as significant as any consideration of the terrain 'through a commander's lens' and are also explored within these papers.

The papers in this volume explore terrain in military actions both from the viewpoint of historical commanders as well as from its cultural influence, and collectively they illustrate the historical, cultural and archaeological importance of battlefield landscapes. The purpose of this introduction is to provide a framework with which to view the collective message provided by the component parts within this volume.

1. Aspects of terrain and military action

Terrain, the landscape of battle, forms a backdrop to any military action. The relevance of terrain to these actions, and to the interpretations that we place upon them, may change with time. Figure 1 presents a conceptual model which charts the association of military action with three levels, or layers, of landscapes: the symbolic, the practical, and the iconic. This model, effective from ancient times through to the present day, creates a mechanism

whereby the symbolism, physical attributes and cultural aspects of terrain may be related and this model is elaborated below.

2. The symbolic landscape

Symbolism ascribed to landscapes or terrain elements, may control, through reference to ancient rites or customs, the placement of traditional battlegrounds for warring nations or communities. Such symbolism is ascribed a greater significance in ancient warfare (**Cathers, this volume**), with a decreasing relevance in the industrialised warfare of the late 19th and 20th centuries, although ancient significance may resonate through centuries (**Pollard, this volume**). However, the association of national identity with components of the landscape — such as the 'white cliffs of Dover' as an icon of 'beleaguered' Britain in the Second World War — is one way that new symbolism of value to a nation may be created. These aspects are further explored in the recent volume edited by Freeman & Pollard (2001).

3. The landscape of battle

This involves the way that military actions were and are controlled or influenced by terrain. The majority of the papers in this volume are concerned with this aspect of our understanding of terrain. The process of military engagement may in itself add to or develop the terrain, creating a layer of landscape with parallels to that of the earlier symbolic one — the iconic landscape. In any consideration of military actions, the landscape of battle, or more properly the sum total of its physical attributes, is of greatest significance in helping determine the outcome of battle (Mitchell & Gavish, 1980; Parry, 1984). Two aspects are necessary in the consideration of terrain: firstly a commanders grasp and understanding of terrain, in part dependent on the resources available to them, which we refer to as terrain intelligence; and secondly terrain assessment and utilisation. These are discussed below.

Terrain intelligence

Both strategic and tactical assessments of terrain require there to be adequate terrain intelligence, provided in advance of the operation. These should ideally represent a databank of information available to commanders in considering the implications of operations in prosecution of the strategic aims of their nation or group. Such intelligence is gathered by terrain specialists and is presented to military staffs in published form, most appropriately in the form of maps, plans and photographs (Whitmore, 1960; Beckett & Webster, 1969; Parkinson, 1997). In the Great War alone over 850 million military maps of all scales were produced by the main protagonists (**Chasseaud, this volume**). The adequacy of this intelligence, and its appropriate use by commanders, is perhaps one of the most strongly debated

aspects of all considerations of military operations. This is typified by aspects of the Boer War of 1899-1902 (**Marix Evans, this volume**), but more specifically by the raging debate over the adequacy of mapping, staff work and intelligence gathering before the allied landings at Gallipoli in 1915 (**Doyle & Bennett, this volume**). Often, however, it is difficult to assess the extent to which commanders had detailed information at their fingertips, as with aspects of the Napoleonic wars (**Kimble & O'Sullivan, this volume**) or the American Civil War (**Pittman, this volume**).

Terrain assessment

Typically, there are five aspects to be considered in the tactical assessment of terrain (Parry, 1984):

1. *Position.* Position is everything in a battle where the possession of high ground means that a defender is able to command the lowlands surrounding it. This is a characteristic of the battles for position in the Flanders lowlands during the Great War (**Doyle et al., this volume**), as well as in the Battle for Monte Cassino in 1944 (**Cicarelli, this volume**). Modern technologies allow us to re-examine the battlefield and recreate lines of sight, vantage and concealment thereby aiding historical analysis (**Ehlen & Abrahart, this volume**).
2. *Mobility.* Adequate mobility of troops, animals and machinery requires an understanding of the ground conditions. Correlations may be made between ancient battle sites and geology which appear to suggest that certain geological terrain were favoured as battle sites (**Halsall, this volumea,b**). However, it is in considering 20th century warfare that the importance of terrain to mobility becomes most apparent. The war on the Western Front during 1914-1918 demonstrated the need for appropriate assessment of 'going surfaces', that is surfaces over which the men and materials could be transported. The creation of rapidly driven plank roads to combat the unsuitable, soft wet ground of the Ypres Salient, for example, was an attempt to address this issue (**Thompson, this volume**). The physical barriers provided by the bocage or hedgerow country of Normandy (**Badsey, this volume**), the sands of the Western Desert (**Underwood & Giegengack, this volume**), and the rivers and slopes of Italy (**Cicarelli, this volume**) during the Second World War are also excellent examples of the difficulties to be addressed in any tactical assessment of terrain.
3. *Ground conditions.* Any consideration of ground requires an assessment of the geology and the ability of a body of soldiers to dig into it to create permanent emplacements, defensive positions, and airfields. Adequate terrain intelligence is required, and the fortification of the Channel Island of Jersey during the Second World War is a particularly important example (**Rose et al., this volume**), as is the exploitation of appropriate sites in Britain — airfield country — for the siting of air bases (**Blake, this volume**). Offensive military engineering, such as the mining carried

out during throughout the history of siege warfare, and resumed during the Great War (**Bostyn, this volume**), also requires similar levels of terrain intelligence.

4. *Resource provision.* The provision of adequate supply line and communications is of great importance to the supply of troops on the ground and this is relevant in the extended and vulnerable supply lines of the Western Desert preyed upon by roving 'private armies' such as the Long Range Desert Group during the Second World War (**Underwood & Giegengack, this volume**). The local terrain itself will provide some of the necessary supplies, derived from agriculture, for example, and natural resources such as aggregates (**Rose et al., this volume**) and particularly water supply (**Doyle & Bennett, this volume**), requires adequate intelligence.
5. *Hazard mitigation.* Natural hazards, such as weather conditions, can cause difficulties, such as the excessive rainfall during the Third Ypres campaign of 1917 in Flanders (Griffiths, 1989), or the changes in wind direction that hampered the first offensive use of poison gas by the British on the Western Front in September 1915, or the trajectory of shells (Watt, 1918). Floods, mass movements and other natural hazards similarly need to be considered.

4. The iconic landscape

The significance of battle sites as scenes of slaughter are such that they have become national symbols, icons of the ideals ascribed to by the dead of their protagonists (**Castell & Roura, this volume**). Many examples can be drawn from the ancient battle sites of Europe, but perhaps the greatest examples may lie in the wars of the 20th century, where the significance of the landing beaches of Gallipoli and the chalk upland of Artois have strong cultural associations with nation building for Australia, New Zealand and Canada. The development of a mythology of the Great War as a war of trenches and mud — both ultimately a factor of the underlying geology and terrain — is another potent example of this (Doyle, 2001). Such significance ascribed to the iconic landscape has led to the development of the relatively new consideration of battlefield archaeology, particularly for ancient battle sites, where myth and legend can significantly cloud the historical accuracy of our understanding of the prosecution of battle. For the wars of the last two centuries, this is less of an issue, and sufficient resource exists to compare archaeological and documentary resources to establish the progress of a particular battle. But for far off wars — the English Wars of the Roses of the 15th century, for example — the received wisdom about a battle, such as the Battle of Towton in 1461 where 28,000 soldiers were supposed to have perished, archaeological evidence is at odds with local knowledge, folklore and accepted fact (Tim Sutherland, pers comm.). Ultimately, the creation of modern myths and legends, and the memorialisation of this layer of terrain

Fields of Battle

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