From the editors

This issue of *Scientia Militaria* brings an interesting mix of articles and book reviews that deal with the spectrum of defence, strategy, human security matters, civil-military relations, conflict and conflict resolution, peacekeeping and the history of war. Also included are articles from the natural sciences and an exploration of moments in South Africa's history of conflict. Geography and war, battle space and nature also receive attention. In short, we carry contributions from the social sciences, geography, military history and the natural sciences, which all demonstrate *Scientia Militaria's* commitment to multi- and interdisciplinary approaches.

In the first article, Louw and Esterhuyse argue that they could provide sufficient evidence by 2013 to confirm what defence analysts had been suspecting for a while: the military effectiveness of the South African National Defence Force (SANDF) is deficient. This article suggests that this condition is due to strategic failure, brought about by the dynamic interaction between the preferred strategic management model¹ of the organisation and its acquired strategic culture(s). The authors further suggest that a design school strategic management model best explains the method towards the SANDF's current condition of organisational entropy, but that its root cause actually lies in a dichotomous strategic culture. In combination, these two variables conspire to diminish the defence force's responsiveness to its operational context, resulting in the formation of an inappropriate strategy that prevents the SANDF from achieving military effectiveness. While the authors consider the article to be hypothesis-generating, it also has an exploratory dimension and paves the way for a validation study at a later stage. The authors argue for a strategic management model that could explain the SANDF's strategy formulation process, its method of ensuring that strategic outcomes correlate with strategic intent, and ultimately the weakness of the model in accounting for the external environment in realised strategy.

In the second part of this contribution, Louw and Esterhuyse focus on the dynamic interaction between a preferred strategic management model of the SANDF on the one hand, and the SANDF's acquired strategic culture on the other. The analysis draws attention to the fact that the properties of institutional culture inform the extent to which an organisation, such as the SANDF, suffers the deleterious consequences of an inappropriate management model. The authors argue that the military's lack of consensus on an appropriate political culture, the lack of a suitable social culture, and the lack of an effective military culture have resulted in

maintaining the continued viability of two discrete, concurrent strategic cultural paradigms in the SANDF: that of the defunct SADF before 1994 (dominant under the apartheid state) and that of what the authors call 'the obsolete MK' (integrated into the South African military during the transition process of 1995–1997). The uneasy co-existence of these two paradigms, each with its own worldview and value system, has confounded the efforts of the SANDF to form an appropriate intended strategy and to realise military effectiveness in its execution. A dichotomous strategic culture has, in effect, reinforced the weaknesses of the SANDF's strategic maximised model, impeded organisational responsiveness, management organisational entropy, and encouraged the defence force's systemic decline - the latter, a fact that the Defence Review 2014 specifically acknowledges in the discussion of the first milestone of the review. This part mainly employs deductive reasoning and draws its conclusions from a focused literary review.

South Africa's history is steeped in conflict from the early days, and as such, continues to intrigue both revisionists and conventional historians. Denver Webb's contribution deals with the early colonial wars on the Cape Colony's eastern borderlands and western Xhosa land, such as the 1799–1803 war.² This lengthy conflict was the first involvement of the British army in fighting indigenous people in southern Africa. This article revisits the war and examines the surprisingly fluid and convoluted alignments of participants on either side. It points out how the British became embroiled in a conflict for which they were unprepared and for which they had little appetite. It explores the micro narrative of why the British shifted from military action against rebellious Boers to fighting the Khoikhoi and Xhosa. The article argues that in 1799, the British stumbled into war through a miscalculation – a mistake which was to have far-reaching consequences on the Cape's eastern frontier and in western Xhosa land for over a century.

The 'bush war' or 'border war' in local parlance or what other participants and actors call the 'Namibian Struggle for Liberation' or the 'Angolan War' still stirs up emotions and evokes contrasting perspectives steeped in ideological convictions.³ The situation was worsened by the fact that where material was not destroyed, it has only become available during the past ten years or so after declassification on the South African side. Further, the perspectives from the other sides, namely Angola, Cuba and the Soviet Union, are mostly unknown or unread, sometimes because of ideological bias or personal preferences and sometimes because the sources are only available in Spanish and Russian. Gerhard Oosthuizen provides a critical glance into the controversial battles at Cuito Canavale, the Lomba River and the Tumpo Triangle. He offers critical notes that question the ideological claims by Jannie Geldenhuys and Magnus Malan that the South African Defence

Force (SADF) was the undisputed victor at Cuito. The SADF supported UNITA during Operation Modular (June to December 1987) to stop an extensive FAPLA offensive, Operation Saludando a Octubre ('Salute October'). FAPLA and its Cuban-Russian allies intended to eliminate the 'UNITA problem' and they set the conquest of Mavinga and Jamba as their first target. The SADF-UNITA alliance was able to stop this advance during the Battle of the Lomba River in early October 1987. The SADF and UNITA forces thereby achieved the first objective of Operation Modular. The remaining phases of Operation Modular – from October to December 1987 - were unsuccessfully aimed at the primary objective, namely to destroy the FAPLA brigades east of the Cuito River, or at least to force them west, across the Cuito River. The SADF-UNITA allies agreed to continue military operations in the Sixth Military Region in an attempt to achieve this goal. After Operation Modular had formally come to an end early in December 1987, the planning of follow-up Operation Hooper was continued. The author critically investigates the claim of General Jannie Geldenhuys, head of the SADF (1985-1990), that Operation Hooper was an unqualified success, as well as his controversial claim that Operation Hooper entered its last phase with successful attacks by the SADF-UNITA forces on 13 January, and 14 and 25 February 1988. Solid examination of current South African sources proves that only the offensive/battle of 14 February 1988 was a success. The SADF-UNITA alliance was entirely unable to destroy the FAPLA brigades east of the Cuito River or to force them across the river. Thus, again, not all the objectives pursued after Operation Modular could be achieved.

By addressing terrain as an operational and training reality for armed forces, Smit and Janse van Rensburg address the fact that terrain not only shapes the nature of operations but that, in fact, it defines the nature of land power as the pre-eminent form of military power everywhere. The influence of terrain on military operations is a well-known and well-researched topic. In a South African context, the body of literature about this topic is, however, not well enough developed. This article strives to make a contribution to literature about South African battles and the influence of terrain on the outcomes of such battles. During the Anglo Boer War (1899-1902), two important battles were fought along the Modder River. The first of these battles is known as the Battle of Modder River or Twee Riviere (Two Rivers, if translated directly from Afrikaans), while the other is known as the Battle of Paardeberg. These battles were fought in close proximity to one another, both in distance and time. The terrain of the battlefields played a key role in both engagements. This article suggests that the spatial arrangement of the koppies (hills) and the fact that they were much closer to the Boer laager at Paardeberg than at the Battle of Modder River played a key role in Cronje's surrender to the British.

The military and management receive attention from various sources (our first two articles in this issue hint at this). In his article, Magagula eloquently presents preliminary findings on current environmental management practices used by the SANDF at the Grahamstown Military Installation (GMI). These findings comprise interviews with SANDF officials and an analysis of official documents, which include the first and second editions of the Environmental Management Plan for Defence (2001 & 2008 respectively). The study on which this article reports, found that the emphasis placed on environmental protection within defence force activities worldwide has compelled the South African Department of Defence and Military Veterans (SA DoDMV) to regulate the management of the environment within its properties. Yet, these efforts have faced numerous challenges that range from financial to human resource deficiencies. Consequently, the military installation at Grahamstown does not have environmentally knowledgeable and qualified personnel to deal with environmental issues. From the analysis of official documents as well as interviews with respondents, it was established that the SA DODMV itself does not have a budget for environmental services. The combination of all these drawbacks has led to the failure of the implementation of the Environmental Management System (EMS) for Defence at this military installation (i.e. the GMI) of the SANDF. Undoubtedly, all these challenges have severely compromised the commitment of the SA DoDMV to honour its environmental management obligations. Moreover, the deficiencies of all these resources undermine the sustainable utilisation of these national assets (natural resources) entrusted to the defence force. The study reported on here proposes an ideal model for the successful implementation of the EMS in SANDF military installations.

In terms of the natural sciences, a welcome contribution is made by Bezuidenhout exploring the West Coast of South Africa between St Helena Bay to the north and Langebaan Lagoon to the south. These areas are characterised by numerous granite protrusions. These outcrops are elements of the underlying Cape Granite Suite, which forms the bedrock of a large part of the Western Cape. Granite contains high levels of natural radionuclides, which results in high levels of natural background radiation in the surrounding areas. The effects of these high levels of radiation exposure on military personnel are of concern as there are four military units located in this part of the West Coast, namely SAS Saldanha, 4 Special Forces Regiment, Langebaan Road Air Force Base and the Military Academy. Different sites in and around these military units were selected and soil samples were taken. Laboratory gamma ray measurements were done to determine the levels of natural radioactive nuclides in the soil samples. The radioactive nuclide concentrations were interpolated and then mapped with the help of geographic information systems (also

known as geospatial information systems or GIS) software. An evaluation of the annual dose rate of military personnel at the units on the West Coast was made and found to range between 0,017 mSv/y and 0,163 mSv/y. These values were mapped and compared to the average global annual dose rate of 0,070 mSv/y. The article reports on an analysis of these results and the overall exposure levels of personnel from the various military units on the West Coast of South Africa.

In his contribution, Dean Peter-Baker explores the issue of morality and ethics.⁴ He addresses among others the creation of the Joint Ethics Development Initiative (JEDI). The title is, of course, offered partially in jest, but the image of the Jedi warrior of the Star Wars saga is intentional. At the heart of the proposed initiative is the development of a new, rigorous and highly demanding qualification and associated training programme. Graduates ('JEDI warriors') will have demonstrated excellence in a range of capabilities necessary for success in today's complex operational environments, but most centrally, they will have demonstrated excellence of character and the capability to make clear, sound and well-reasoned ethical judgments under highly challenging conditions. The proposed qualification should be viewed as playing a similar role as that played by the US Army's Ranger qualification. It would indicate a special degree of competence and mark the bearer as someone to whom peers, superiors and subordinates can reliably turn for guidance in that area of competence. Just as the Ranger programme allows for the embedding of excellence in small-unit leadership and tactics in units across the Army, the JEDI programme would allow for the embedding of excellence in ethical awareness and judgment across the Joint Force.

In this edition, we have three book reviews. This year, we commemorate the centenary of the beginnings of a very destructive First World War. The tank, together with the submarine, airplane and chemical weapons, made its first appearance on the destructive battlefields of the First World War in the search for a restoration of mobility – to break into, break through and break out of the static battle lines of the First World War. Liebenberg reflects on the effect the tank had on warfare from a sociological perspective with the review of Patrick Wright's book *Tank: The progress of a monstrous war machine*.

The image of Africa as a war-torn continent persists. Organised violence is still responsible for the death and displacement of many on the continent. In a second review, Wolf offers her view of Paul D Williams' book, War & conflict in Africa. She highlights key questions that are addressed in the book, such as the number of conflicts has Africa suffered, the causes of conflict, the increase of conflict in Africa at a time when other developing countries undergo peaceful

development, and the matter of what governments are doing in response to these conflicts.

A third book review by Mark Blaine discusses an edited volume, *War and peace in Africa: Philosophy, theology and the politics on confrontation*. The book addresses the vexed issue of armed conflict, including mass violence within civilian communities or states, and peace and reconciliation coupled with justice. Blain's review indeed offers food for thought.

As editors, we and our editorial committee trust that this edition of *Scientia Militaria* will bring you our reader many hours of pleasant reading.

The editors

Abel Esterhuyse & Ian Liebenberg

Endnotes

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¹ The debate on management models and strategy was addressed from early on. However, in South Africa not enough has been done. On other earlier case studies consult: Beishline, JR. Military management for national defense. Englewood Cliffs, NJ: Prentice-Hall, 1963. See also Roherty, JM (ed). Defense policy formation: Towards comparative analysis. Durham: Carolina Academic Press, 1980.

² Consult among others Pampallis, J. Foundations of the New South Africa. Cape Town: Maskew Millar Longman, 1991, 6ff. Also see Stapleton, TJ. Maqoma: Xhosa resistance to colonial advance. Johannesburg: Jonathan Ball, 1994.

³ One example of a work by a South African author, LJ Bothma, that breaks through the constrained South African ideological perspectives of the past by historians, retired generals and colonels and the embedded journalists of yesteryear is worth a thorough reading. Bothma's splendid re-evaluation of the war in Namibia is indeed a welcome addition to the understanding of a war waged by the apartheid government and its military against Namibians and Angolan people. See Bothma, LJ. *Vang 'n Boer: Die stryd tussen Boer en Ovambo*. Epping: ABC Press, 2012.

⁴ Elsewhere this matter also received attention, albeit from a slightly different angle. Compare: Amersfoort, H, Moelker, R, Soeters, J & Verweij, DEM (eds). Moral responsibility & military effectiveness. The Hague: Asser Press, 2013.