

**THE INDIAN ARMY IN THE MEDITERRANEAN
THEATRE: A TACTICAL AND TECHNOLOGICAL
ANALYSIS (1940-1944)**

**Synopsis submitted to Jadavpur University
for the award of the Degree of
DOCTOR OF PHILOSOPHY
in Arts**

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2024

Synopsis

The focal point of this thesis is the British-Indian Army's role in the North African Campaign during the Second World War. My thesis argues that the British-Indian Army played a pivotal role in the Allied victory in the Mediterranean theatre. It will emphasise the performances of several Indian divisions, specifically the Fourth Indian Division, that formed the bulk of the Western Desert Force, which fought against the Italian Tenth Army and the *Afrikakorps*. The thesis intends to show how the British-Indian Army won the campaign due to innovation in battle tactics and by using technology and reinforcements properly. This thesis has attempted to expand on comparing training methods used by both armies. No book till now has covered these aspects of the North African Campaign in detail from its beginning to its end. My thesis attempts to fill this historiographical gap. My research focuses on the period between 1939 and 1944. It begins with studying the interwar period and the lessons imbibed from it, which helped the British- Indian Army prepare itself for the Mediterranean front. It ended with the Battle of Monte Cassino, where the Eighth Army emerged victorious. It has attempted to show how the North African Front emerged as the first theatre that gave rise to the phenomena of 'desert warfare' and study the political, strategic, operational, and tactical levels of combat. History from the top is the approach used in my thesis.

When reviewing the secondary literature of the Second World War theatre, many works have covered the different aspects of this theatre of war. This thesis will provide a brief review of the literature of the works. In his monograph, *The Second World War*, J.F.C Fuller, the polymath, focuses on the strategy and tactics of the entire war in terms of different theatres and fronts. He believes that war is nothing more than a lethal argument. The object of war is not slaughter and devastation but to persuade the enemy to change his mind. He believed that strategic bombing was not morally wrong but militarily wrong and politically suicidal. The ideological wars were meaningless, not because ideas are impervious to bullets, but the holier the cause, the devilish the end. He argues that generalship demands audacity and imagination, not merely the weight of metal and the superiority of numbers. He argues that British strategy should be based on sea power, not land power, because Britain's geographical position demands it.

Author Richard Hammond, in his work *Strangling the Axis, the Fight for Control of the Mediterranean during the Second World War*, has accentuated the importance of the Mediterranean to the British Empire as it is a vital means of communication between the Eastern and Western worlds. He argues that the Mediterranean was a significant factor in initiating a global war, given its changing position in British strategic policy from the construction of the Suez Canal to the Italian declaration of war in 1940. The British foreign policies in the late inter-war period included numerous efforts to keep Italy neutral, allowing the Mediterranean to be denuded of military assets in favour of their deployment against threats elsewhere. Like the British, the Italians held some high hopes to control the Mediterranean as a waterway to safeguard their sea communications and strangle those of their enemies. The entire book covers the campaign chronologically, highlighting the factors that lead to the reasons behind the campaign.

In his *Fighting Rommel*, author Kaushik Roy focuses on the 8th Army. He showed in his monograph that the Indian formations, in particular, experienced innovations, both in the aftermath of defeat and flushed with victory. He has demonstrated the dialectical relationship between command structure and combat operations, on the basis of the after-action memoranda and intelligence reports. He attempts to show how defeats on the battlefield influenced the training period and how an innovative training period proved its worth during the actual confrontations. He argues that the victory in battle required training manuals to be updated regularly. The conception and implementation of subtle and sophisticated tactics raised the combat effectiveness of specific units in the 8th Army. He has narrated his argument at four levels – army, corps, division, and battalion. He shows that combined arms tactics between armour, artillery, infantry, and air force were essential in the desert, and especially in the mountainous regions, infantry-field-artillery-close air support combination played a crucial role.

The 8th Army was in the process of updating its learning techniques. Kaushik Roy argues that the Allied commanders' rigid linear defence in the open desert proved inadequate against the fluid mobile battle waged by the *Afrikakorps*. He mentions that innovations were regional and enemy-specific. Numerical and material superiority backed up positional warfare tactics for the 8th Army. The battles of Alamein needed its geography to be won over by the tactics of mobile warfare. The coming of General Bernard Law Montgomery brought innovations in artillery tactics, utilization of aerial photos, and patrolling reconnaissance. His tight command

system and the conservative attitude of some divisional commanders also obstructed innovations in doctrines and tactics. In Tunisia, the Indian infantry, in comparison to the British infantry, excelled in mountain warfare. In Mareth, Akarit, and Enfidaville, the 4th Indian Division proved superior to the 50th and 51st British Divisions. They were excellent at conducting nocturnal warfare against the technically backward Pathans and Italians, though it was tough to defeat the *PanzerarmeeAfrika*. Fighting Rommel has dealt with these aspects of the North African Campaign at length.

In his exceptional work, *Rommel's Desert War*, Author Martin Kitchen argues that Hitler's decision to send troops to North Africa was made with considerable reluctance, and his motives behind helping this front were more political than military. He was convinced that an alliance with Italy was the cornerstone of German foreign policy. He made Major-General Erwin Rommel, a highly ambitious soldier and the commander of the *Afrikakorps*, when he was highly ambitious about driving the British out of the Mediterranean. Kitchen argues that. When the British launched their offensive in North Africa with Operation Compass, Adolf Hitler's Mediterranean strategy began to unravel. Hitler, concentrating on preparations for Barbarossa, claimed to be as interested in North Africa as the British. The Panzer was the key weapon the Germans had learned to master at the operational level in the interwar years. They developed the Panzer division, in which the Panzer was integrated with infantry, artillery, signals, and reconnaissance, supported by supply columns and specialized engineers, with all units mechanized to move at the same pace as the Panzer. Kitchen argues that the British-Indian units had nothing to stop the Panzer division with its versatility and daunting speed. Further, he argues that the British were helpless against the operational brilliance of the *Afrikakorps*. Kitchen also contends that they learned slowly, which is narrated differently in this thesis. He advocates that Rommel's exceptional position was not due to his forceful personality and military accomplishments but even more due to his unique support from the Fuhrer. He achieved most of what he did due to the support of several outstanding staff officers.

Author Neal Dando, in his monograph, *From Tobruk to Tunis: The Impact of Terrain on British Operations and Doctrine in North Africa, 1940-1943*, has focused on the crucial impact of the physical terrain on the British victories throughout the campaign in North Africa. He argues that terrain heavily influenced planning, command decisions, and tactics in operations. Terrain influenced three layers of military operation, from the importance of strategic ports through areas of operational importance to the tactically essential features, including high-end ground

and depressions, which remained vital unit objectives. Commanders often base their operational and tactical decisions not only on unit strengths and remaining armor or guns but also on whether the critical ground has been gained or lost, influencing the viability of continuing the action or exploiting any success.

He further argues that British forces improvised on specific tactics, which became more standardized and widespread as the campaign continued. The nature of the dispersal of troops throughout the landscape also heavily influenced a degree of improvisation in British tactical doctrine. Terrain heavily influenced planning, command decisions, and the tactics used. Units made continuous operational moves to capture and hold high ground or other features to gain an advantage over the enemy. The commanders made tactical decisions based on the success or failure of gaining these features and targeting the destruction of the enemy units. They planned subsequent moves based on their unit's ability to hold key ground while considering regular military factors of remaining unit strength, morale, cohesion, and supply of their formation.

Daniel Allen Butler, in his monograph *Field Marshal: The Life and Death of Erwin Rommel*, is a biography depicting the qualities of Erwin Rommel as a leader and soldier. He argues that Rommel was a complex man who proved himself to be a master of armored warfare, running rings around a succession of Allied generals who never got his measure and could only resort to overwhelming numbers to bring about his defeat. *The Desert Generals* by Corelli Barnett is a brilliant work that argues for the struggle of the individual will against circumstances in the desert. He analyses the style of five commanders, all modifying their fighting tactics according to the needs of the desert. There was a condensed action of nobility, frailty, resolution, loyalty, vanity, fear, simplicity, selfishness, greatness, and littleness. The author argues that this Desert Campaign constitutes the last act of the British Empire as a great, independent, and united power.

This Desert Campaign reveals the methods of thinking, organizing, and fighting of each side and foreshadows their industrial and commercial processes. The Desert Campaign of 1940-1943 is an addition to great epics. It was a battle fought in the wasteland, how soldiers of different battalions strove for victory amid the mechanical tumult of a kind of battle never seen before. Barrie Pitt, in his two-volume work, *The Crucible of War, Western Desert 1941*, and *The Year of Alamein 1942*, has massively worked on the two most crucial years of the campaign, which saw the significant operations, Battleaxe, Crusader, and the Alamein battles.

Though written in more of a quasi-popular approach, the author has attempted to provide more essential details about the British Indian Army fighting the Italians in Operation Compass, something that has not been extensively worked upon to date. He has thoroughly spoken of the generalship of General Archibald Wavell and General Claude J. Auchinleck and how they formulated their command to fight the Italian Tenth Army and, after that, the *Afrikakorps* of the Desert Fox, General Erwin Rommel.

Stephen Brooks edited *Montgomery and the Eighth Army*, a brilliant account highlighting General Bernard Law Montgomery's, hereafter Monty's, experience as a commander in the crucial months after arriving in the Western Desert. The author argues that Monty had a free hand to put his ideas on leadership and the conduct of war to the test. His encounters with the problems of coalition warfare brought an unwelcome loss of independence and growing frustration. However, Monty enjoyed massive success in battling with the Germans and his side over how operations should be conducted. He is one of the few commanders who has provided insights into the campaign's events with his pen. Monty knew he had to take hold of enormous operations of contemporary and historical significance. The author contends that the victory of the 8th Army under Monty's command was based on the pains he took to teach his generals. Their success in the battles of Alam Halfa and the last battle of Alamein was due to the training he provided after he arrived in the desert. Before his command, there was no training of Commanders by their superiors and no firm doctrine of war on which to base training. Only after this training was established could new techniques for modifying the tactics evolve. Practical training in the desert was of utmost importance to Monty, which helped to learn how best to apply ideas in changing conditions under which the Eighth Army was operating.

Authors Jack Greene and Alessandro Massigani, in their monograph *Rommel's North African Campaign, September 1940-November 1942*, have attempted to portray a narrative of the North African Campaign and analyse its elements, highlighting General Erwin Rommel's impact. However, they argue that they have tried to uplift the role of the Italian counterpart in terms of soldiers, weapons, and tanks, which has been highly neglected by the other authors who have focused mainly on British or German sources. The successful use of the German-built 88mm anti-tank gun by the Italians, as well as the 90mm anti-tank guns, is one mentioned by the authors. This monograph is a detailed account of the campaign from an Italian-German perspective.

An edited volume by Alan Jeffreys and Patrick Rose, *The Indian Army, 1939-1947, Experience and Development*, has several articles that discuss the different aspects that influenced the Indian Army's role during the World War years. It studies the evolution of the imperial military formations, the command culture of the Indian Army along the North-West Frontier during the interwar period, and Winston Churchill's influence in forming the composition of the Italian Army. It is an exceptional piece of writing by author Alan Jeffreys, highlighting the rigorous and tactical training evolution of the Indian Army soldiers during the North African Campaign. In his work *India's War, the Making of Modern South Asia 1939-1945*, author Srinath Raghavan looked into the war from a political perspective by studying the strategic dimension of war, with India being an appendage to the British Empire. His work also studies the international dimension of war, domestic politics, and the social and economic dimensions of the war. It has also touched upon the war front by looking into the wide-ranging mobilisations and ensuing transformations at home. He found the transformation of the Indian Army painful, but he put forward the fact that the Indian Army was an adaptable fighting force. His work has highlighted that India was acknowledged as an emerging global power. According to him, this book accounts for a desperately poor country mobilized to an astonishing degree that simultaneously fought for its freedom and that of the world.

In his excellent *Fighting the People's War*, author Jonathan Fennel provided a chronological structure for the Second World War, highlighting structures, patterns, contingencies, and meaningful events. The author has tried to assess the military and political context in which the British Commonwealth and its armies entered the Second World War. It depended on evaluating the Empire's preparedness in terms of its politics, public morale, and military tools during the interwar period. The balance between structure and contingency drove understanding of the army's composition. The British-Indian Army, he argues, bore the overwhelming burden of the fighting during the initial years of the war. There was a highly contested political context of mobilisation, the extent to which the citizens mobilised voluntarily for war, and the social backgrounds and occupations of those who fought. Understanding the men who fought in the British and Commonwealth armies helps us understand their behavior as soldiers. Recruitment and the scale of commitment to the war were, in many ways, dependent on levels of collective and internal political and social cohesion. This monograph contains analytical narratives of the North African Campaign and the Middle East. It also touches upon the morale crisis faced by the citizen soldier and the state. There were complex and often contradictory imperatives at the political, military, strategic,

operational, and tactical levels combined to drive adaptation and innovation in the armies. The High Command and the field commanders had to discover ways to win, surpassing insuperable structural problems. These reforms needed changes to personnel selection, man-management, welfare education, and a dramatic reorientation of fighting techniques. General Montgomery understood that by controlling operations tightly, instead of relying to a considerable extent on initiative, it was possible to get more out of the forces available. The author also argues that the brutal fighting developed in the Mediterranean led to morale problems in Italy. Problems regarding morale affected combat performance on the battlefield. It was only by replacing formations that victory was seen at Cassino. The campaign of North Africa has no doubt played a massive role in the evolution of the Allied operations, as this contributed significantly to the military defeat of the Axis powers.

Now, I will discuss the sources, starting with the printed primary sources. *The Official History of the Indian Armed Forces in the Second World War, 1939-1945*, has one particular volume on the North African Campaign that has a chronologically narrated series of the battles and the operations of the North African Campaign from 1940-1943. The author, Major P.C. Bharucha, a narrator at the Historical Section, Ministry of Defence of India, has covered the desert operations for the two Indian Divisions involved in the fighting in Africa over the territories expanding from Egypt to Tunis. It was an active front for four years, and this book focuses on the Divisional War Diaries preserved with the Historical Section of the Ministry of Defence of India. So, it seems like a narrative account of these diaries' details. Another primary printed source of global importance is *The Rommel Papers*, edited by B.H. Liddell Hart is a collection of letters and notes exchanged by the Desert Fox's General Erwin Rommel, who narrates the events in the North African Campaign ever since his deployment there as a commander of the *Afrikakorps*. These two works are probably the nearest depiction of records in words available in the literature of this particular theatre.

Similarly, Lieutenant-Colonel G.R. Stevens Obe, in his spectacular work *Fourth Indian Division*, has attempted to write a narrative account of the Fourth Indian Division's role as one of the most incredible fighting formations in military history. This division fought nine campaigns in five years, traveled over 15,000 miles, and captured over 150,000 prisoners. It fought in exceptional battles like the Battle of Sidi Barrani, which destroyed the Italian-Tenth Army, stormed the natural fortress of Keren, and cleared the Italians from their colony of Eritrea; they made a fabulous fighting retreat from Benghazi. They had a fair share in the

victories of El Alamein, a decisive role in capturing the Mareth Line, and the final triumph in Tunisia. They were incredible in their assault at Cassino, which was a problematic front to handle compared to Keren and Mareth; they were also successful in breaching the Gothic Line. The author has uplifted extensively the staunchness of the division in fighting these battles through the bravery and smartness of the soldiers of these divisions portrayed on the battlefield. This monograph highlights the reputation of the Fourth Indian Division on the battlefield as an amalgamation of one of the finest warrior race forces ever created. This was a division that constituted the oldest British and Indian units. The artillery of this Division was British. The British and Indian soldiers had a true spirit of camaraderie, mutual trust, and concord. This book has tried to uplift the North African Campaign through the prism of the Fourth Indian Division.

Many scholarly works have further investigated the different aspects of the Mediterranean theatre of the Second World War. Historians worldwide have worked extensively on the Second World War and focused on the various campaigns. Some of these works have focused on the Mediterranean theatre of the Second World War. Therefore, this thesis attempts to cover the North African Campaign of the Second World War, which started in 1940 and ended in 1943. This campaign is widely believed to be the epitome of Desert Warfare, where an entire campaign was fought in the desert sands with the soldiers bearing the unbearable heat and cold of the contrasting temperatures. To defeat the Axis powers and win this campaign, the Allied forces narrowed down to the British Army or the 8th Army, with an influx of Indian soldiers in their composition, adapted to different terrain, and were brilliant at developing their tactics according to the needs of every progressing operation. This campaign was unique, with miles of sand extending before the eyes, making the eyes of the soldiers burn with the glaring heat, yet going on with an undaunted spirit. This thesis attempts to understand the campaign from an operational perspective with a chronological narrative of daily battles and operations. While doing so, it has made a humble try to highlight the tactical changes made with every victory and defeat. This thesis covers the entire campaign, from the beginning to the end. It begins with the British-Indian Army being deployed to North Africa under General Archibald Wavell to fight the Italian Tenth Army under the leadership of Marshal Rodolfo Graziani in 1940. It continues to deal with the operational events that have progressed over the years, where *Afrikakorps* was called in to begin parallel warfare with Italy under the command of the Desert Fox, Erwin Rommel. This thesis comprises six chapters, each of which chronologically deals with the events of the North African Campaign.

This thesis begins with the Introduction, after that progresses with Chapter 1: The British-Indian Army before 1939, Chapter 2: The British-Indian Army versus the Italians, 1939-1940, Chapter 3: The British-Indian Army against Rommel's *Afrika Korps*, 1941–1942, Chapter 4: Stalemate and Victory, 1942, Chapter 5: Triumph in Tunisia, 1943, Chapter 6: Fighting at High Altitudes, 1943-1944, and ends with the Conclusion. It contains several maps that highlight the positions of the Indian Army's during crucial operations.

The introduction has attempted to bring forward the central argument of the thesis, review existing literature on the North African campaign, and elaborate on how this thesis differs from previous works. Several scholars have studied the North African campaign from different perspectives. However, most of them generally focus on specific operations over five years. None have covered the role played by the Indian Army in the entire campaign. This thesis will analyze the campaign through the prism of technology and tactics and reveal how the Allies responded to the challenges that cropped up during the campaign. It will focus on the role of the Indian troops that formed the Western Desert Force and, later, the 8th Army.

Chapter 1 deals with the training of the British-Indian Army during the inter-war period. The First World War forced the Indian troops to cope with the rigors of mass industrialized warfare and trench warfare. In the inter-war period, the British-Indian Army was deployed in different areas which involved various modes of combat, such as jungle and mountain warfare. This collective experience played a critical role in shaping the character of the British-Indian army. This chapter has focused on the army's training after the First World War. In doing so, this chapter has highlighted the lessons learned by the British-Indian military and how it helped the Indian troops perform better in the harsh deserts of North Africa.

Chapter 2 has focused majorly on Operation Compass and elaborated on the tactics used by the Fourth Indian division under the command of General Sir Archibald P. Wavell, such as the usage of specific roads called barrel routes where barrels were used as landmarks, driving the vehicles in the desert formation, etc. The chapter has highlighted logistics, discipline, and communication. Arrangements had to be made to repair and tow the damaged vehicles. The establishment of workshops, communications, strict march discipline, and judicious expenditure on petrol and drinking water are some aspects that the chapter has elaborated on. This chapter discusses the Battle of Sidi Barrani (1940) and shows that the British-Indian troops' administrative coordination and tactical developments led to their victory in Operation Compass. It will focus on the role of the 7th Royal Tank Regiment and the 11th Indian Infantry

Brigade. Heavy artillery bombardment and 'I' tanks surprised the Italians equipped with M.II tanks. The Italian Tenth Army had no substantial armour or anti-tank guns capable of piercing the British tanks. Coordinated attacks on the Nebeiwa and Tummar camps and advances on Bardia, Tobruk, Mekili, Beda Fomm, and Benghazi made the 4th Indian Division victorious in their first major offensive in North Africa. The Italians suffered a setback from which they never recovered. In essence, this chapter analyses how the British-Indian Army defeated the Italians, who then turned to the German High Command for support.

Chapter 3 finds the British-Indian Army shifting focus on a new adversary. It underlines the various operations conducted against the *Afrikakorps*, including the detachment of the army deployed in the Mediterranean. Field Marshal Johannes Erwin Eugen Rommel, the commander of the *Afrika Korps* and a veteran in tank warfare, introduced a new set of desert war tactics and powerful tools of war against the British. The entire campaign underwent a drastic change due to his highly trained personnel, the strength of his armour, tactical air support, superior mobility, and new tactics. This chapter compares the training methods adopted by the two forces. The third chapter focuses on crucial operations like Operation Brevity, Operation Battleaxe, and, most notably, Operation Crusader. During Operation Battleaxe, the Western Desert Force underestimated the strength of General Rommel's armored divisions. This brought a change in the leadership of the Allied forces in the Middle East. General Sir Archibald P. Wavell was replaced by General Sir Claude J. Auchinleck as the Commander-in-Chief of the Allied forces in the Middle East. The Allied fighting forces in the western desert were renamed the 8th Army. The success of Operation Crusader forced Rommel back to Western Cyrenaica. This chapter examines how the 8th Army innovated in the spheres of tactics and logistics that made this victory possible.

Chapter 4 focuses on the three Battles of Alamein. The Battle of Gazala saw the Axis powers gaining possession of the ridges of Maabus es Rigel and Hagiag er Rami and the British-Indian Army being forced off the battlefield. The British-Indian forces lost most of their tanks, while the Germans were left with double the strength of their opponent. The 8th Army was still capable of defending Tobruk but suffered significant losses among the armoured brigades. The 8th Army's armoured force was strengthened by adding several new formations. The chapter argues that timely reinforcements changed the course of the battle. This chapter discusses the 8th Army's retreat to Matruh to delay the Axis advance. It emphasizes that surplus infantry without field artillery support and armoured fighting vehicles is useless. It became a hindrance

to decreasing the troops' mobility in battle. The consolidation of the Alamein Line laid the foundation for the ultimate victory of the 8th Army in North Africa. The Battle of Alam el Halfa was significant, and the 8th Army's first considerable action caused Rommel's second major reverse since his arrival in Africa. It was a model defensive engagement where tanks dominated the battlefield. The chapter also highlights the importance of command. There was again a shift in command of the 8th Army with the appointment of Field Marshal Viscount Montgomery, better known as 'Monty.' He deployed the available forces in a defensive position supported by much artillery and in the Battle of Alam el Halfa, the 8th Army fought a positional firepower heavy artillery battle. The chapter narrates how this battle, though a stalemate, ultimately prepared the way for the subsequent historic victory in the Third Battle of El Alamein.

This chapter elaborates on the Third Battle of El Alamein, which saw the 8th Army constructing a deception scheme that misled the Axis commanders about their attack's actual date and direction. This required a high degree of camouflage and constant maintenance of vehicles and artillery throughout the entire operation zone. Special care was taken to preserve the density of troops in the rear areas and prevent any hostile forces. When units and formations moved out from the rear, dummies instantly filled the gaps to deceive the German planes reconnoitering the Allied position. This chapter compares the tactics used by the two armies and highlights what made the Allied gain supremacy over the *Afrikakorps*. This chapter will explore the eleven days of war that led to the victory of the 8th Army at the Battle of Alamein. The Axis suffered a severe blow: eight divisions were destroyed, the strength of their army was diminished by two-thirds, and they lost a large number of guns, tanks, and stores. Allied casualties were fewer, and it became evident that the German Army would no longer be able to hold their defenses in North Africa for long if they did not receive reinforcements on time. Therefore, the Axis forces started to retreat.

The fifth chapter focuses on the Tunisian campaign on the pursuit of control maintained by the 8th Army in North Africa, where the Axis forces suffered from a breakdown of overseas logistics after being left with little more than one composite division. After a long fight involving administrative and tactical innovations, Monty was confident of capturing or destroying the remaining Axis forces. The 8th Army planned to reach Benghazi and then move to El Agheila and Tripoli. With the Battle of Medenine and Operation Supercharge, the Axis powers fell in Tunisia with mass surrenders from the German Army Group. In April and May 1943, the Tunisian campaign saw the Indian troops emerge victorious, for which they won

many awards for gallantry and courage. In the final telegram to the British Prime Minister, Winston Churchill, the 8th Army reported they were the 'Masters of the North African shores.' This chapter will summarize the Tunisian campaign, highlighting the tactical advancement of the 8th Army.

The sixth and last chapter will highlight the shifting of the British-Indian Army from the desert to the mountains. They will merge with the 5th Army and gain control over the high altitudes of the Sicilian and Italian mountains. This required the army and its respective commanders to shift their training and tactical methods from one to a different form of terrain warfare. This thesis, though not in expertise but in some modest attempt, tries to trace a change in the trajectory of fighting from the desert to the mountains for soldiers who had already exhausted their spirits after a four-year campaign.

The conclusion will summarize the key differences between the Allied forces, especially the Indian units, and the Axis forces regarding tactics, supplies, reinforcements, and technical innovations. Undoubtedly, the *Afrika Korps* walked into the North African Campaign with better armour, and a general who later became a pioneer in desert warfare. Yet, elements like regular supplies, repairing and replacing vehicles, tanks, and armaments, systematic communication between the field commanders and Army Headquarters, and the ability to shift to better and innovative tactics whenever required made the 8th Army victorious.

Not only was the BIA's preparation level (from a material and manpower perspective) more multi-faceted than is often recognised, so was the army's intellectual preparation from the doctrines for war. The BIA identified the war's critical philosophical and doctrinal aspects before 1939. One of the main developments in the army was its refusal to continue the elements of attrition-based siege warfare that dominated the campaigns on the Western front. It now focuses on ensuring speed, mobility, and surprise in its battlefield behaviour by embracing modern technology, using tanks, trucks, or air power. The number of horses and mules reduced from 28,244 in 1913 to 6,544 in 1937. The Royal Artillery was in the process of converting to motorised gun tractors. Many soldiers were being transported by road as more and more infantry platoons were issued with lorries. The FSR emphasised the necessity for all arms to cooperate intimately in battles. The infantry would be hopelessly vulnerable without artillery and anti-tank support. Artillery could not conquer the territory on its own, and tanks were needed for infantry and artillery to overcome hostile anti-tank weapons, open passages through defiles, and consolidate ground gained. The emphasis on cooperation between the

army and the air force was amplified, but there were no specific regulations in the FSR regarding this. In the inter-war period, there was an ongoing dispute between the General Staff and Air Staff over who should control the air–land surface. The services asserted that the closest cooperation between air and land forces was essential.

The Indian Army was unprepared for a high-intensity conventional war under British rule. This was starkly clear from the results of the First World War. As a military establishment, it also made honest efforts to learn from its drawbacks and develop itself by training in newer and better tactical and strategic methods. These methods could be applied in several theatres, where they would have to perform in case there came another war-like situation. There were specified theatres where they had to gain tactical mastery—in mountains, frontiers, jungles, and deserts. Desert warfare is a phenomenon that the following chapters deal with, to analyse the biggest desert war ever fought in the Mediterranean theatre of the Second World War—the North African Campaign. The BIA won their first significant success in the war. Made up of 36,000 troops, they overcame an army of 2,00,000 Italians. Around 1,30,000 prisoners, 180 medium and more than 200 light tanks, and 845 guns were captured. So great was the victory that the British prisoners of war cages were inadequate for the influx of Italian soldiers. This victory over the Italian Tenth Army culminated in British inter-war doctrinal development. Even if not the best equipped, a regular force of seasoned troops were perhaps Britain's finest trained, as they decisively defeated a much larger opponent by implementing field regulations. Operation Compass was the evidence of a 'decentralised, initiative-led command in practice'. The brigade commanders of the 4th Indian Division were involved in operational planning from the earliest stages and were well-versed in their superiors' intentions. Whenever coordination was required at the corps or army level, O'Connor provided by observing events, wielding absolute control over the offensive, and ensuring energy fulfillment of the manoeuvre. Thus, the war in the desert needed proper implementation of plans by well-trained, well-equipped, and highly motivated troops. Moreover, this success illustrated the Italians' folly and the British Empire's latent strength. Operation Compass was a triumphant success. The Desert Rats, armed with a mass of intelligence material gathered from all grades of operational traffic, gained absolute mastery of the Mediterranean. This made it imperative for the Italians to seek help from Germany.

The engagements on the Gazala Line showed that the BIA and its units failed to work effectively as a team. Empowered junior leaders could not compensate for a lack of grip,

control and coordination at the army, corps, and divisional levels. Those engaged on the frontline were required to use their initiative and judgement without knowing whether their decisions aided or undid the plans of their superiors. The fighting power of the 8th Army was dissipated and dislocated, amplifying the natural confusion of the battle. Separate actions of the units could not be coordinated beyond a local battlefield by a higher command to produce a broader strategic effect throughout the Gazala battle. The morale and cohesion of the 8th Army had also begun to falter. The *Panzerarmee* launched its other offensive on 20 June with an aerial bombardment and entered the town the following day. Tobruk's commander, Major-General H.B Kloppe, decided to surrender, making the second siege of Tobruk last a little longer than twenty-four hours. This sent shockwaves throughout the British Empire. Auchinleck realised that digging into Mersa Matruh would be headlong or chaotic. So, on 30 June 1942, the 8th Army reached a miniature railway halt some 60 miles west of Alexandria called El Alamein. In the desert, the El Alamein position was on the sea to the north and the impassable Qattara Depression to the south, making it Egypt's most robust defence line. Every British soldier was happy as it was a turn in the tide in literal terms, as the coast from the Depression was 40 miles. In these 40 miles, one could watch over the approaching enemy and the lines of communication simultaneously.

Auchinleck faced other difficulties, including dealing with a disorganised and demoralised army. There was disappointment among all ranks of the 8th Army, accompanied by admissions of weariness or fatigue. Troops also criticised leadership in the field, and it was said that some Allied forces thought that Rommel was a better commander. There was a growing belief that the BIA forces would have proved more than a match for the Axis forces under exemplary leadership. With the 8th Army's morale potentially on collapse, Rommel launched his next attack on the El Alamein Line on 1 July 1942. The 8th Army unleashed concentrated firepower in the bottleneck of El Alamein. This had a devastating effect on the troops of the *Panzerarmee* as they tried to drive out of the El Alamein Line. Panic broke out in the divisions, and, this time, the *Afrikakorps* were more exhausted than the British and Commonwealth armies. Rommel had pushed his army so far and fast that the *Luftwaffe* could no longer provide meaningful air cover. The RAF had a numerical superiority over *Fliegerfuhrer Afrika*, which had 780 operational aircraft—the critical moment of the war had passed. By 3 July 1942, *Panzerarmee* was reduced to twenty-six German and five Italian tanks fit for action, and Auchinleck had gained a firm grip aided by the natural strength of the El Alamein position, the rapid reinforcement of the 8th Army, and the extraordinary efforts of the Desert Air Force.

The 8th Army had also received two new, relatively fresh, and well-trained infantry divisions and a new armoured division for the attritional warfare, which was to be developed in the confined spaces of the El Alamein position. These formations were largely uncontaminated by the disasters at Gazala, Tobruk and Mersa Matruh and brought new life to the 8th Army. By the end of July 1942, there was an improvement in morale among all ranks, but victory had still not been achieved. Something dramatic must happen if the 8th Army was to reserve its fortunes in the desert.

In the battles of El Alamein, the Axis forces suffered severe blows. By 6 November 1942, there were at least 30,000 prisoners, including nine generals captured by the 8th Army. Casualties were in the thousands, the *Littorio* and the *Trieste* divisions were practically destroyed, and only a fraction of the *Ariete* escaped. The 15 and 21 Panzer Divisions lost all their tanks. Overall, the Italo-German Army was reduced to almost two-thirds of its original strength, equivalent to losing about eight divisions. Losses in tanks, guns, and stores were also immense. Rommel started with 600 tanks, out of which 450 had to be left behind due to fuel shortage, and 75 were lost during the retreat. Many vehicles and over a thousand artillery pieces were either captured or destroyed by the 8th Army. The fleeing troops left behind weapons and ammunition they could not carry. In comparison, the Allied losses were not very heavy.

Monty devised a relatively simple and conventional approach to tackling the Panzerarmee along the El Alamein line. He maximised the vast material resources provided by the factories of Britain and the USA. By carefully training his men for the specific roles he required of them, he ensured that they entered the fight fully prepared. His strategy was logical and profoundly tactical; he effectively aligned his goals with the available means, leading to victory. However, the Battle of El Alamein did not destroy Rommel's forces in North Africa. Historians believe Monty's new slow and cautious "Colossal Cracks" approach ultimately led to that outcome. The battles at El Alamein drove the first decisive nail into the Axis coffin in Africa, with a second blow delivered just days later. By November 4, 1942, the battle was practically over. The balance of forces and supplies had shifted entirely against Rommel. He estimated that he had only twelve tanks left, and all his anti-tank guns were gone. His army was almost without air cover. The man who had brought the Axis so close to victory in the desert was forced to retreat to preserve the Panzerarmee's forces for future battles. The German War Diaries from the battle praised the BIA soldiers for their tenacity and resilience in combat. Despite their heavy losses, they continued to attack repeatedly and ultimately succeeded.

To analyse the situation from the German perspective, Rommel recognised that the defeat at Alam el Halfa marked a turning point in his campaign. Since January 1942, he had been operating with only 40 percent of the supplies he needed while the British forces enjoyed ample logistical support and complete air superiority. Rommel acknowledged that he had made a significant error by launching an offensive without ensuring he had enough fuel. He also held Kesselring accountable for this mistake, believing that Kesselring had intentionally delayed the shipment of weapons, ammunition, and fuel to Alamein. He also thought that Kesselring was jealous of his status as a commander. But it was a fact that Rommel was no longer the overconfident swashbuckler; he was a commander who was now exhausted, worn out, and depressed. There was a shortage of trucks, water supplies were affected by several storms, and fuel supplies were inadequate. On 19 October 1942, the Panzer Army Africa had 273 Panzers and 289 Italian tanks. Of these, only the 88 Panzer IIIs and 35 Panzer IVs were modern weapons; the remainder were either obsolete or useless, especially the Italian ones. They had intelligence that the 8th Army had 1,029 tanks, among them 170 Grants and 252 Shermans, both with 75mm guns, and the Shermans also had long barrels. The Sherman was a vastly improved version of the Grant, with a fully rotating turret and an armour-piercing shell capable of penetrating the enemy armour, an excellent match for any Panzer, except for a handful of Panzer IVs.

Panzer General Georg Stumme, who oversaw the *Afrikakorps* while Rommel went on a break to treat his ill health, also addressed the problem of the Panzer Army's poor supply and the importance of improving the quantity and quality of patrols. But their major problem remained with supplies. Inadequate food resulted in a sharp increase in the number of sick soldiers. There was a long list of troops suffering from gastroenteritis, dysentery, and jaundice. Many 17- and 18-year-olds were thrown into the battle before being appropriately acclimatised in the desert. There were also insufficient hospital beds in North Africa. This led to a marked decline among the Axis troops, particularly among the Italians.

Stumme made another blunder by refusing to bombard the British positions to save ammunition. This scarcity of ammunition was also another reason behind the silence of the German guns, rather than the 8th Army's counter-battery fire. The German outposts 'J' and 'L' were quickly overrun by the Australian Divisions of the Allied forces. The Italian 62 Infantry Regiments and two battalions of the 164th Infantry Divisions were wiped out by the British artillery. Stumme died the following day on his visit to the 90th Light Africa Regiment.

However, Hitler was still convinced that Rommel would stop the 8th Army at El Alamein. OKW concentrated entirely on the Soviet Union campaign when Stalingrad was a culmination point.

The ongoing problem for Rommel in North Africa remained logistics when he returned to take his position. The *Panzerarmee* had only three units left between Benghazi and the front, whereas it had eight when Rommel left. Ideally, with supplies, it should have been thirty. This showed that the *Panzerarmee* was tactically hamstrung. Rommel had no fuel to fight the 8th Army, even when he believed the *Afrikakorps*' tactical strength might have outweighed their numerical inferiority. He was locked in a battle of attrition and could not win anymore. He wrote to his wife that he was sure that the British would win over North Africa in a few days because their superiority was staggering and their own resources meagre.

Monty's morbid plan, codenamed 'Operation Lightfoot'—where he decided that this would not be a repetition of 'hit and run' tactics for the 8th Army, but only a 'killing match'—proved disastrous for the *Afrikakorps*. Hitler firmly believed that the 8th Army could not break through Rommel's positions at El Alamein. Persistent aerial attacks and massive barrages by the armoured divisions of the BIA were of an intensity that the *Afrikakorps* had never experienced. The Allied artillery was supported by massive air attacks, resulting in communications between the forward and the rear positions being severed. The 5.5-inch howitzers and 2.5-pounders, along with Wellingtons and Halifaxes of the Desert Air Force, played a decisive role in the destruction of the *Panzerarmee*. The Germans were unnerved. The 25-pounders, onomatopoeically called 'Ratsch-bums' by the Germans, were particularly feared because it was impossible to hear the shell coming.

The German forces collapsed in a few days and withdrew after suffering heavy losses. Rommel had started sending frantic messages to the Headquarters for supplies, but he realised there was little chance they would be heeded. He reconciled himself to the idea that the 8th Army would grind him down. With the end of 'Operation Supercharge', the Axis forces were at the end of their strength. They had used up its ammunition reserves, and Rommel knew he was fighting blindfolded. He was sure it was time to withdraw, fighting his way back. He knew his *Afrikakorps* were exhausted, having fought against a vastly superior adversary for ten days. The nature of the war in North Africa had changed at this point. What was previously a colonial war was now a war of material, in which tactical skill, courage, and morale were no longer significant. It was now a war the Axis could not possibly win.

In another letter to his wife, Rommel wrote that he realised that the decisive battle of North Africa was lost. He attributed this to the lack of supplies, the overwhelming Allied superiority in the air, and the absurd order to stand and fight to the last man and the last round. He believed that even the bravest of men could not fight without a gun, that the best guns were worthless without ammunition, and that in mobile warfare, firearms and ammunition were useless if they could not be moved around in vehicles with enough petrol. Air support was needed, which could not be provided by the Luftwaffe. This was now a battle of attrition fought from the air, with overwhelming air power seriously limiting operational and tactical options.

Hitler had also understood by now that Rommel was no longer a loyal soldier. The 8th Army had avoided a fight in the open and opted for an unimaginative battle of attrition. With its overwhelming quantitative and qualitative superiority in material, it was almost bound to win. Rommel generously praised the British infantryman's disciplined training, the artillery's speed and accuracy, and the air forces' skill and courage. The 8th Army, especially the Indians, were also exceptionally skilled at night-time attacks. Such attacks were usually spearheaded by heavy tanks, which came to within 1,800 meters, where they were out of the range of the Axis anti-tank guns. November 1942 was, thus, a month of doom in modern German history. It was evident that a profound change had occurred in the power of the Allied forces in the Middle East. The three services were working together in an increasingly coherent and coordinated fashion. The Allies were facing a changed picture in North Africa.

Two years and 336 days after Italy declared war, the Allies in North Africa had won a final and complete victory. This Tunisian Campaign fought between April and May 1943, witnessed fierce fighting between the Allied and the Axis troops. Specific Indian units performed bravely and won many awards for gallantry and courage, including two Victoria Crosses. The first was Subedar Lalbahadur Thapa of the ½ Gurkha Rifles, who participated in the fight for Fatnassa in the first week of April. He cut his way into a small arena while trying to secure a passage when the defenders opened a sleet of fire. Undaunted, he led his men on and fought up a narrow gully, overcoming all opposition in close-quarter combat with his *kukri* and revolver. He won a brilliant victory for the 4th Indian Division almost single-handedly. The second was Company Havildar Major Chhelu Ram of the 4/6th Rajputana Rifles, who won the award for his fight on 19 April 1943 at Gebel Garci. Armed with only a Tommy gun, Chhelu Ram dashed through a hail of fire and captured a German post. He then rushed to an exposed place where his Company Commander was lying wounded. Seeing all officers down, he took command, reorganised his

company, and led the assault with great skill, rushing from one post to another and encouraging his men. Chhelu Ram ultimately laid down his life on the battlefield, but the Germans were driven away.

Monty believed that his soldiers' high morale was unbeatable; his army was invincible and could do no wrong. The low sick rates among the soldiers were an example of this morale. However, the fighting in Tunisia had cost the British and Commonwealth armies dearly. The 1st Army suffered 25,742 casualties, and the 8th Army suffered an additional 12,618. The front collapsed for the Germans—they had no more supplies, arms, or ammunition. The *Afrikakorps* surrendered, and many Italian and German soldiers found their way into Anglo-American prison camps. Even more shattering was the realisation that their star had declined and the knowledge of how little their command measured up to the trials ahead.

Having accomplished its task of seizing the Sant Angelo, the 8th Indian Division pulled out of the line and surrendered command of its sector at 2300 hours on 16 May. With the capture of Pignataro, the task of the 8th Indian Division was accomplished; after five days of fierce fighting, the Gustav Line had been broken. While smashing the line, the division had captured 600 Germans, killed and buried 400, and, with the Canadian tanks, accounted for seven tanks, sixteen anti-tank guns, five self-propelled guns, and a large quantity of material. In the process, the Germans needed clarification and could not offer coordinated resistance or put up a large-scale counterattack. The achievement of the 8th Indian Division is highlighted by the inability of the Polish Corps to break through the German solid defenses north of Cassino and by the precarious bridgehead secured by the British 4th Division in the early stages of the attack. It was the initial success gained by the 8th Indian Division in seizing and holding a firm bridgehead at S. Angelo that paved the way for the final victory. The 8th Indian Division emerged from the battle with added glory and prestige.

The summer campaign in Central Italy redeemed the fame of the Allied arms in the Mediterranean theatre. Before this, the Allied armies had successfully pushed back the Germans; this summer offensive was a breakthrough, a triumph of strategy as opposed to the tactical successes of the Volturno and the Sangro. The 5th and the 8th Armies achieved great surprise in their regrouping for the attack, thus concealing their strength and the point of intended attack until the very last moment. Armored superiority was both achieved and exploited to the full. The concentration of land forces affected the front of the attack.

Previously, a superiority of two-to-one or even three-to-two over a wide front was considered sufficient, provided adequate air and fire support were available.

This thesis is a humble attempt to establish the North African Campaign as a study of operational history from the tactical and technological perspective, focusing on the Indian Divisions or formations that formed the majority of the British Army deployed to fight at this front. It speaks of the training of the Indian Army under British regulations in the interwar period, where the troops were rigorously trained for acclimatising and gaining mastery over different terrains. To my knowledge, this thesis is one of the few works created on this particular theatre of World War II, with special emphasis on the North African Campaign. This thesis has used War Diaries, Brigade Diaries, and Regiment Diaries of the Indian Divisions that participated in the campaign, available at the Ministry of Defense, Historical Section, New Delhi. These diaries contain official letters, instruction summaries, after-action reports, maps, and many other records of valuable information. Many authors have not accessed these sources and are exclusive to the few Indian hands that gained permission to view them from the authorities. Apart from these, this thesis has also used private papers of the commanders who served in the campaign: General Sir Francis S. Tuker, General Sir Archibald Wavell, General Claude J. Auchinleck, General Bernard Law Montgomery, Lieutenant-General Sir Reginald Arthur Savoury, and General Sir Richard O'Connor. These private papers provide an insight into the direct view of the generals administering orders and exchanging instructions and letters of the day, thereby making it insightful to understand the battles and operations from the direct prism of the officers commanding them. This thesis has also looked into some Panzer Division Diaries from the National Archives of New Zealand. It has tried to view the campaign from the British perspective and validate it through records and sources that speak of the British victory and the reasons that led to it. The findings of this thesis are primarily based on the documentation of these papers and diaries.

This thesis attempts to establish a detailed study of the phenomenon of 'desert warfare'; the technicalities of fighting a war in the barren sands for almost four years is something that has not been attempted to date. Some exceptional works individually deal with certain parts of the campaign, but none have covered the entire campaign. The thesis also tries to investigate the nitty gritty of mountain warfare as the victory of the campaign of North Africa led to the moving ahead of the 8th Army at the high altitudes of the Italian Campaign with its participation in the famous battles of Monte Cassino. There is a shift from the tactics of fighting a war in the

deserts to an opposite climate and terrain in the mountains. So, this thesis is also an attempt to look into the pros and cons of fighting high-altitude warfare, though in much lesser detail than what it has attempted for desert warfare and desert tactics.

This thesis's final findings remain that the British Indian Army went into the war to fight the Italian invasion of the Mediterranean theatre, where it had to continue fighting the *Afrikakorps* commanded by the Desert Fox, Erwin Rommel. This campaign saw the 8th Army fighting the *Panzerarmee* for the most extended duration, for which this campaign continued. Initially overwhelmed with the superiority in terms of armour and especially the Panzers that Rommel brought in, it became a difficult task for General Wavell and General Auchinleck to bring over decisive victories in Operation Compass and Crusader, and also the First Battle of Alamein. It was only after the coming of General Montgomery, who is famously known as Monty, that the tides turned over. This thesis would also argue that it was somewhere due to the logistical inefficiencies of the *Afrikakorps*, it became favourable for the 8th Army to utilise the dearth of resources to strike at the right moments without leaving time for the *Afrikakorps* to rebuild their supplies. Every chapter of this thesis presents a different perspective on the Indian Army's training from the inter-war period to the campaign's conclusion at the Gustav Line. This work invites comments, suggestions, corrections, and criticisms to further develop this research area and enhance future studies and explorations.

To analyse the historical role of the Indian Divisions, particularly the Fourth Indian Division, it is noteworthy that they fought bravely in various terrains. The British Indian Army transformed volunteers with limited outlooks and skills into professional soldiers with broad general knowledge and proficiency. Training in specialized weapons, adopting new battle tactics, exposure to unfamiliar lands, engaging with diverse social systems, and using several foreign languages all contributed to expanding the soldiers' understanding of the world. Every chapter of this thesis presents a different perspective on the training of the Indian Army from the inter-war period to the campaign's conclusion at the Gustav Line. This work invites comments, suggestions, corrections, and criticisms to develop this research area further and enhance future studies and explorations. To analyze the historical role of the Indian Divisions, particularly the Fourth Indian Division, it is noteworthy that they fought bravely in various terrains. The British Indian Army transformed volunteers with limited outlook and skills into professional soldiers with broad general knowledge and proficiency. Training in specialized weapons, adopting new battle tactics, exposure to unfamiliar lands, engaging with diverse

social systems, and using several foreign languages expanded the soldiers' understanding of the world. The soldiers practised tactical exercises with live ammunition on an impressive scale during the inter-war period.

It cannot be said that the British-Indian Army was completely unprepared for another world war after 1919. In the first year of World War II, the BIA was led by a cadre of committed professional generals who had successfully predicted the nature of the upcoming conflict, which would require extensive cooperation and integration among all branches of the armed forces. They had also developed a doctrine that encouraged commanders to take responsibility during battles and to trust their subordinates, a leadership style reminiscent of the German Army in World War II. In 1939, the British Indian Army was repeatedly overwhelmed on the battlefield. When General Montgomery assumed command in North Africa in August 1942, he directly addressed the army's core challenges. He implemented a comprehensive and meticulous training program that effectively resolved existing shortcomings within the ranks. Montgomery also focused on boosting morale, inspiring his troops in ways that marked a turning point for the BIA in the war. He developed a combat strategy that was tailored to the realities on the ground, aiming to establish a more centralized system of command and control. This approach sought to create opportunities and leverage significant advantages in material resources and firepower in the desert. Montgomery believed that firepower alone could not secure victory. The primary purpose of artillery and aerial bombardment was not merely to kill the enemy but to undermine their morale and suppress their fire, allowing infantry to cross fire-swept zones. His strategy for addressing the 'Colossal Cracks' heavily relied on the speed with which attacking infantry could follow up after bombardments. If there was a significant delay between the end of the bombardment and the arrival of the attacking troops, defenders could often recover from the shock of concentrated firepower and mount an effective response. The success of the commanders and staff depended on their ability to plan offensives meticulously. However, the allocation of resources was not guaranteed to occur precisely when and where needed, significantly if unexpected events delayed the advance, allowing defenders to react and adapt accordingly.

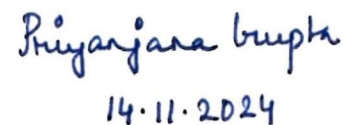
The resilience of German forces played a crucial role in the events of World War II. A swift maneuver was essential to encircle and penetrate their defenses, and by applying relentless pressure, surrender became inevitable. However, General Montgomery's strategy, while formidable, faced significant challenges. During the intense campaigns from late 1942 to 1944,

the British 8th Army struggled to transition from initial engagements to complete breakthroughs. What truly stands out is the impressive ability of the British forces to adapt and evolve their strategies, training, and resource management in response to the extraordinary difficulties of those years. From the German perspective, it was strongly believed that their setbacks in North Africa resulted mainly from the Allies' material superiority and the shortcomings of their Italian allies. Despite these challenges, they were confident in their unmatched operational and tactical skills, believing their training was superior at every level. Meanwhile, the atmosphere at Hitler's headquarters grew increasingly dire as he reluctantly recognized the severe blow to German forces. Despite these difficulties, a sense of determination persevered, reflecting a complex interplay of strategy and resilience. This thesis puts forward all these arguments in details and deals with them.



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