Middle Eastern Geographies of World War I

A Monograph
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Abstract

Military history demonstrates the vital role that geography plays in the planning, execution, and results of any conflict. This project espouses a comprehensive notion of geography that encompasses both physical and human contextual characteristics, as well as relationships that exist between the two. Theorists Carl von Clausewitz and Antoine de Jomini include geography in their discussions on strategy and tactics, and they challenge military leaders to understand its effects when applying combat power. With the importance of understanding comprehensive geography evident in classic theory and the contemporary operating environment, this project examines its contribution to the results of two World War I campaigns in the Middle East. The 1914–16 British campaign against Turkish forces in Mesopotamia found success throughout its first year. However, continued offensive operations toward Baghdad in late 1915 resulted in retreat from Ctesiphon, siege at Kut, failed relief efforts along the Tigris corridor, and the eventual surrender of Kut in April 1916. The evidence suggests that the British leadership’s inadequate understanding of the effects of Mesopotamia’s human and physical geographies contributed to their operational results. In contrast, Emir Feisal and T.E. Lawrence’s understanding of both human and physical geography contributed to their success in the British-sponsored Arab Revolt of 1916–18. These case studies demonstrate that as an element of leadership, an appreciation for all aspects of geography contributed to operational success in the Middle East during WWI by building an understanding of both the physical and human terrain and their effects on military operations. Although recent doctrinal expansion and resource allocation demonstrate the Army’s current regard for comprehensive geography, creative changes in personnel and planning processes can further develop its ability to address the complex operating environments of the future.
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Military history demonstrates the vital role that geography plays in the planning, execution, and results of any conflict. This project espouses a comprehensive notion of geography that encompasses both physical and human contextual characteristics, as well as relationships that exist between the two. Theorists Carl von Clausewitz and Antoine de Jomini include geography in their discussions on strategy and tactics, and they challenge military leaders to understand its effects when applying combat power. With the importance of understanding comprehensive geography evident in classic theory and the contemporary operating environment, this project examines its contribution to the results of two World War I campaigns in the Middle East.

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Section 1: Overview and Introduction

When a Chief of the Imperial General Staff wrote that he had “never had time to study the details of military [geography]”… it was as if the President of the Royal College of Surgeons said he never had time to study anatomy, or do any dissection.1

— B. H. Liddell Hart, *Thoughts on War*

In this epigraph, Liddell Hart states what might seem obvious to most military thinkers or practitioners — that geography exerts a vast influence over the planning, execution, and eventual outcome of military operations. Despite this, COL(Retired) John Collins offers a reminder in *Military Geography: For Professionals and the Public* that:

History is replete with prominent commanders who sorrowfully assumed that enemy area analyses would mimic their own…. [Leaders who] lack much feel for climate and terrain are prone to make geographic miscalculations…. It is worth remembering that human factors often may be more cogent than [the] physical…. Long experience indicates that, all else being equal, military practitioners and their civilian supervisors who purposefully make geography work for them are winners more often than not, whereas those who lack sound appreciation for the significance of geography succeed only by accident.2

In light of the role that geography plays in military affairs, this project explores the relationship between comprehensive geographic understanding and operational success.

As Collins alludes to above, a comprehensive view of geography includes both biophysical phenomena (physical geography) and social phenomena (human geography).3

Largely based upon operational experience in Iraq and Afghanistan, recent updates to training, field manuals (FMs), and resource allocations demonstrate the Army’s invigorated appreciation for comprehensive contextual (or geographic) understanding and the tools needed to facilitate its realization. FM 3-0 *Operations*, FM 3-07 *Stability Operations*, FM 3-24 *Counterinsurgency*, and FM 3-24.2 *Tactics in Counterinsurgency* are just a sample of the doctrinal artifacts that now

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2 Ibid., 7–9.
highlight the effects of both the physical and human characteristics of the environment.\(^4\) Current emphasis on cultural awareness, language training, and the employment of various forms of geographic information systems (GIS) also demonstrates an appreciation for the comprehensive nature of any operational context. Whereas the importance of comprehensive geographic understanding may now be accepted in the light of current military operations, the purpose of this project is to investigate the relationship between geographic understanding and campaign success within an operational theater of the past. In addition, this study provides further support for the Army’s emphasis on understanding both physical and human geographic factors.

Soon after the onset of World War I (WWI), in the late summer of 1914, the stalemate of trench warfare on the Western Front forced Britain and her allies to look outside Western Europe for locations in which to achieve some semblance of operational maneuverability. And debate began to emerge within the upper echelons of British military and political leadership:

So-called ‘westerners’ … insisted that British and Allied forces should be concentrated in the western front against the full might of the German army, and the ‘easterners’ felt that a vigorous campaign against a weak Ottoman Empire … would allow Britain and France to link up more effectively with Russia, while at the same time, providing an opportunity to unleash Britain’s unmatched naval power, hitherto frustratingly underemployed. Deadlock on the western front could thus be circumvented by an eastern campaign against Turkey.\(^5\)

The demands of the easterners evolved into the failed attempt to capture Gallipoli, but two other campaigns against the Ottomans also developed. The first Mesopotamian Campaign 1914–16 ended in defeat. The Arab Revolt 1916–18 proved to be successful. Investigating these British-sponsored campaigns illustrates how an understanding of both the physical and human environments contributes to operational success.


Section 2: Project Structure and Methodology

This project claims that as an element of leadership, an appreciation for all aspects of geography contributed to operational success in the Middle East during WWI by building an understanding of both the physical and human terrain and their effects on military operations. To do so, the author employs case study analysis to highlight evidence regarding geographic understanding and operational results. Ultimately, the project demonstrates the military value of comprehensive geographic understanding and the importance of maintaining the Army’s current emphasis on both the physical and human environments.

The project does not claim that geographic understanding was the only factor determining operational success within its case studies. A variety of elements contributed to the operational results. To focus attention on the contributory importance of geographic understanding during the subsequent case studies, Section 3, Why Geography?, will: (1) link WWI era geographic theory at the strategic level with influential thought at the operational level; (2) establish the geographic concepts of spatial friction and linearity as themes exposed throughout the project; (3) define combat power and discuss leadership’s role in applying it within a specific geographic context; (4) review literature regarding other elements of combat power contributing to the operational results in each case study; and (5) stress the importance of leadership’s geographic understanding when employing available combat power.

Sections 4 and 5 offer case studies that demonstrate the relationship between geographic understanding and operational results. The first case study covers the initial British Mesopotamian Campaign from November 1914 to April 1916. The second involves the Arab Revolt and the efforts of T.E. Lawrence between June 1916 and October 1918. Both cases are examples of a British-sponsored effort against a weakened Ottoman Empire during a time in which the stalemate on the Western Front devoured both wartime resources and attention. Comparing these two campaigns serves to reduce the influences that often arise with temporal and spatial variance. British and Turkish doctrine and technology are similar in both cases, but
there is difference concerning conflict type. Whereas the Mesopotamian Campaign was predominantly a conventional conflict, irregular operations dominated much of the Arab Revolt. However, the case studies will show the presence of both conflict types within each campaign.


**Figure 1**

To determine the understanding of comprehensive geography within each case, the author highlights evidence regarding the understanding (or misunderstanding) of both the physical and human aspects of geography. The awareness and consideration of native lineages; cultures; social, political and economic structures; and a population’s intelligence, languages, religions, customs, beliefs, patriotism, attitudes, discipline, morale, and temperament within a specific landscape defines the understanding of human geography. The awareness and consideration of the physical properties of a landscape (natural and man-made), including location; size; shape; make-up; and
relationships between land areas, bodies of water, and climate, defines the understanding of physical geography.⁶

Joint Publication (JP) 3-0 describes the operational level of war as “sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events.”⁷ In this regard, evidence illustrating the success or failure in obtaining operational objectives (specific targets of action) will serve as the basis for evaluating operational success.⁸ Within each case study, the Operational Progression sub-section discusses both the campaign’s background and its operational objectives, while the Understanding Physical Geography and Understanding Human Geography sub-sections cover applicable evidence demonstrated in each campaign.

Section 6 will compare the cases and discuss the relationships between comprehensive geographic understanding and operational results. Section 7 examines the Army’s current regard for comprehensive geography, and concludes by discussing procedural and organizational recommendations to promote this conceptualization and future research.

Section 3: Why Geography?

We humans live in geography, are attached to our home geography, and sometimes covet other people’s geography.⁹

— Colin Gray, War, Peace and International Relations

Campaign investigation that uses comprehensive geographic understanding as a lens to analyze operational outcomes is important because the application of military power never occurs within a neutral context. Geographical factors are always present and they “tend to make warfare

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⁶ Collins, Military Geography, 3–5.
more complicated and ingenious.”10 Any application of operational power occurs within a specific geographic context influenced by the physical and human elements of the landscape and “the web of interacting societal and environmental processes that produce it.”11 Although many factors contribute to operational results, a command’s ability to understand geographic opportunities and constraints helps determine the spatial progression of a campaign and the combat power needed to achieve objectives. The remainder of this section will focus attention on the contribution of geographic understanding during the project’s subsequent case studies.

By the start of WWI, geographic theory had drastically evolved from its cartographic and cataloguing roots, and the works of Alfred Thayer Mahan, Halford Mackinder, and Freidrich Ratzel influenced the strategic level of military thought. Mahan, an American naval captain, published *The Influence of Sea Power on History* in 1890. “Upon reviewing military, political, and economic history from the ancient to the modern eras, Mahan concluded that the determining factor in the rise and fall of empires was sea power.”12 In contrast, Sir Halford Mackinder, chair of the Geography Department at Oxford, posed “the emergence of a twentieth century world-order dominated by cohesive land-based empires.”13 His 1904 lecture “The Geographic Pivot of History” dubbed the Eurasian landmass as the preeminent area of control or pivot area because of the military mobility and economic resources it provided to whatever political structure possessed it.14 His refined theory, later published in *Democratic Ideals and Reality*, included the phrase:

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“Who rules East Europe commands the Heartland: Who rules the Heartland commands the World-Island [Eurasia]: Who rules the World-Island commands the World.”15 In 1897 and 1903, Germany’s Freidrich Ratzel published influential works regarding the evolution of a state according to its landscapes, societies, and resulting political structures. Considered by many as the founder of political geography, he saw war as “a normal phenomenon that is linked to the expansion of dynamic states and the competition between states.”16 Whereas these men considered geography at the strategic level, Carl von Clausewitz, Antoine de Jomini, and pre-WWI British authors provide the link to the operational level by discussing the role of command in addressing geographic friction within linear operating environments.17

Postulating that geography has “a decisive influence in the engagement, both as to its course and to its planning,” Clausewitz includes it amongst the possible elements of operational friction and looks to the genius of leadership to understand its military implications.18 Clausewitz’s comprehensive concept of friction refers to any element of warfare that might introduce uncertainty, error, accident, or technical difficulty, and its potential effect on “decisions, morale, and actions.”19 Each individual, machine, organization, or environment retains potential to cause friction within conflict, and it is what distinguishes “real war from war on paper.”20 Clausewitz maintains, “One can hardly think of a single [operational] phase … where the influence of geography would not be felt. This influence is thus always active; [and] its


degree varies according to the nature of the country.”21 He asserts that the effects of the geography can be decisive or miniscule, but the relationship between it and warfare is both permanent and scalable.22 And because the effects of geography tend “to make military activity more varied, complex, and skillful,” Clausewitz looks for leadership to possess a sense of locality or the ability to quickly and accurately grasp the geographic elements of an operating environment.23 This ability depends on the intellectual strength, originality, and creativity of the operational leadership, and is a vital component of Clausewitz’s concept of genius.24 Because the command must always consider the progression of its actions within a specific space, he implores leadership to acquire an overall knowledge and understanding of the complications or opportunities that the landscape might pose.25 Therefore, Clausewitz contends that effective leadership and command must consider the level of friction present within a geographic setting. “The good general must know friction in order to overcome it,” and with “a quick, unerring sense of locality his dispositions will be more rapid and assured.”26

Although perhaps best known for his prescriptive principles of war, Antoine de Jomini provides valuable descriptions of the linear nature of any operational environment as it relates to both physical and human geography. He stresses the importance of understanding the topography and physical descriptions of a theater and “all the natural or artificial obstacles to be encountered.”27 He claims that the determination of the battlefield decisive point depended upon:

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21 Ibid., 348.
22 Ibid., 109.
23 Ibid., 348.
24 Paret, “Clausewitz,” 203.
26 Ibid., 110, 120.
“features on the ground, the relation of the local features to the ultimate strategic aim, and the positions occupied by the respective forces.”

In turn, the linear lines of operations connect objective points (either objective points of maneuver or geographic objective points) en route to that decisive point. In this respect, Jomini’s theoretical construct of the tactical battlefield and operational theater is linear. Additionally, his description of national resistance efforts illuminates the fact that this linearity moves in both directions, forward toward operational objectives as well as rearward along lines of communications and supply (LOCs). His writings warn the invader or occupier that “no army, however, disciplined, can contend successfully against … national resistance unless it be strong enough to hold all essential points of the country, cover its communications, and at the same time furnish an active force sufficient to beat the enemy wherever he may present himself.”

Jomini compels commanders to avoid scenarios in which “his adversary is on his line of communications, destroys the detachments left to guard it, surprises his convoys and his depots, and carries on a war so disastrous … that he must inevitably yield after a time.”

The emphasis placed on the leadership’s understanding of potential geographic friction and the linearity of warfare presented by Clausewitz and Jomini, appears within the work of pre-WWI British military authors. Retired British Army Colonel A.C. MacDonnell’s 1911 work promotes the understanding of geography as “all-important to a true appreciation of the art of war in campaigns either past, present, or future.” His writing discusses the linearity of potential operational theaters from Europe to Asia as well as recommendations and descriptions for leaders dealing with the possible sources of friction present in those environments. T. Miller Maguire’s

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28 Ibid., 468.
29 Ibid.
30 Ibid., 445.
31 Ibid.
1899 work, *Outlines in Military Geography*, also emphasizes the dual natural of operational linearity. Maguire stresses the importance of securing lines of retreat, supply, and communication while moving along an operational axis. He poses that if a defeated general’s LOCs are “threatened or cut … [he will] be ruined as well as defeated; while a general who has secured his line of communication … can fall back, procure recruits, replenish his wagons, and begin to fight again.”

The aforementioned writers stress the importance of geographic understanding’s role in addressing the linearity and potential friction involved with the application of operational power, as well as the dangers of neglecting it. Discussion will now designate the responsibilities of command, define the elements of combat power, and illustrate how previous authors used these elements to evaluate the 1914–16 British Campaign in Mesopotamia and the Arab Revolt.

Military historian, Martin Von Creveld defines command as “a function that has to be exercised, more or less continuously, if the army is to exist and operate.” He then divides the responsibilities of command into two categories: the arrangement and coordination of everything an army needs to exist (food, sanitation, military justice, etc.) and everything that enables the army to carry out its mission (maneuver, firepower, intelligence, etc.). Therefore, the role of military leadership and command elements is to conceptualize and judge the operational capabilities of their existing organization. Such judgment involves the evaluation of combat power, — “the total means of destructive, constructive, and information capabilities that a military unit/formation can apply at a given time.” Combat power consists of eight elements:

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36 FM 3-0 Operations, 4-1.
leadership, information, movement and maneuver, intelligence, fires, sustainment, command and control, and protection.\textsuperscript{37} Leadership and information are unique in that they are applied through, and can either enhance or detract from, the effects of the other six elements. As Van Creveld, Clausewitz, and Jomini espoused above, it is the command’s responsibility to arrange and coordinate these elements within a specific geographic context. Other authors address some of these elements of combat power in their evaluations of both the Mesopotamian Campaign and the Arab Revolt. Therefore, before this project looks at leadership’s geographic understanding as a contributory factor to operational results within the WWI Middle East, it is useful to highlight works that discuss other contributing factors to success or failure within that theater. The paragraphs below leave leadership (an element of combat power) for later discussion.

Previous descriptions of the 1914–16 British failure in Mesopotamia often note the cumulative effect of multiple factors, but most highlight the importance of sustainment support and command and control. Parliament created the Mesopotamian Commission soon after the end of the campaign to investigate the failed British efforts. Although the findings of the Commission assign individual fault, its 1918 report emphasizes the administrative and resource tensions between British government offices in London and India as causes of improper oversight and supply of the campaign.\textsuperscript{38} In \textit{A Brief Outline of the Campaign in Mesopotamia 1914-1918}, Major R. Evans claims that it is easy to find fault with many aspects of the initial campaign. However, he stresses problems involving the movement and supply of troops due to shortages in land transport, artillery, explosives, bridging material, medical assets, and river transport.\textsuperscript{39} Evans also criticizes the quality of the British staffs. He notes that the British created improvised staffs

\textsuperscript{37} Ibid.


\textsuperscript{39} Major R. Evans, \textit{A Brief Outline of the Campaign in Mesopotamia 1914–1918} (London: Sifton Praed, 1926), 69.
comprised of constantly changing officers who were many times untrained and unfamiliar with their assigned units. And although The Bastard War offers criticism and comment on all aspects of combat power, A.J. Barker also highlights administrative shortcomings, the lack of transport, supply difficulties, and inadequate medical facilities. He contends, “The material difficulties under which the campaign was undertaken could hardly have been worse…. There was a shortage of almost everything needed for its prosecution.”

Authors who downplay leadership’s role in the success of the Arab Revolt often stress the importance of artillery and sustainment support received from the British. T.E. Lawrence’s own writings stress the value of these elements, and so too does the work of British writers A.P. Wavell and Liddell Hart as well as American journalist Lowell Thomas. However, others emphasize it in a more prominent light. Sir Andrew MacPhail proposes that “the power of the British Empire was known to the most ignorant Arab; the guns of the British Navy were heard as far as the mountains; it was British gold that kept the revolt alive…. Colonel Lawrence was the channel through which that gold and power came…. He was an advisor, interpreter, liaison officer, and paymaster all in one.” U.S. Navy Commander Charles Parnell’s “Lawrence of Arabia’s Debt to Sea Power” chides Lawrence-centric histories for failing to give “proper emphasis to his close, cooperative relationship with the Royal Navy.” He stresses that throughout Revolt, the Royal Navy was continuously providing naval artillery support, arms, equipment, and foodstuffs to the Arabs. And lastly, Suleiman Mousa’s 1962 critique of popular

40 Ibid., 69–70.
42 Ibid., 407.
45 Ibid.
narratives surrounding the Revolt argues against Western histories that misrepresent and diminish Arab military and political efforts. Despite the fact that his conclusions downplay British economic support, the body of his work displays the contributions of British artillery, naval, and supply assistance.46

These insights into the contributory roles played by other elements of combat power in the WWI Middle East are valuable. However, the task of leadership and command is to understand operational capabilities in light of the elements of combat power currently existing within an assigned operational environment. Whether abundant or lacking, these are the assets available to address the linearity, potential friction, and objectives within that geographic context. Increases or decreases may follow or be requested, but what is on hand is reality. Therefore, judgment regarding the leadership within both the Mesopotamian and Arab Revolt case studies must consider the actions taken in light of the assets available.

This section has: linked geographic thought at the strategic and operational levels; discussed the spatial concepts of friction and linearity; reviewed other elements of combat power that contributed to operational results in the WWI Middle East; and emphasized leadership’s role in understanding the capabilities of their on-hand combat power. This understanding of capabilities is in part due to appreciating the effects of comprehensive geography. The following case studies will demonstrate the contributory value of understanding the opportunities and constraints posed by a theater’s physical and human geography.

Section 4: The Geographies of World War I Mesopotamia

Operational Progression

The autumn of 1914 was a season of escalating tension between the Ottoman Empire and Great Britain. World War I had been raging in Western Europe since the late summer, and British

officials regarded the warming relations between the Ottomans and Germany as a significant threat to the interests of the British Empire. German officials and advisors penetrated nearly all Turkish administrative and military hierarchies; recent railway expansion had intricately linked the two economies; Germany obtained a concession to build a railway linking Germany with the Persian Gulf; and circulated reports claiming that the “Kaiser had embraced the Muslim faith” looked to foster German sympathies throughout Ottoman-controlled areas. Concerned about this spread of German influence to the east as well as the mobility and oil resources that empowered the Royal Navy, British regional policy focused on the protection of the Suez Canal and Persian oilfields, maintaining control of the Persian Gulf coast, and safeguarding the North-West Frontier and British-held India.

These circumstances convinced officials in both London and India that it was necessary to dispatch a British force to the Persian Gulf in October of 1914 to highlight British presence and demonstrate its resolve to protect its interests in the region. Dispatched under control of the Viceroy of India and commanded by Brigadier General (BG) W.S. Delamain, a mixed brigade of British and Indian soldiers from the 6th Division arrived in Bahrain on 23 October. Delamain’s operational objectives in the event of declared hostilities were: (1) to protect the Abadan oil infrastructure; (2) to support the arrival of any British reinforcements; (3) to communicate support for the Sheikhs of Najd, Muhammareh, and Kuwait; and (4) if possible, to occupy Basra. On 5 November, France and Britain declared war on Turkey, and the HMS Odin’s shelling of the Turkish fortress at Fao initiated Britain’s campaign in Mesopotamia.

BG Delamain and his 16th Brigade gained control of Fao and the mouth of the Shatt al Arab on 6 November. The next day he moved his forces upstream to Sanniya, two and a half

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48 Ibid., 17.
miles north of the Abadan oil works. On 14 November, Lieutenant General (LTG) Sir Arthur Barrett arrived with the rest of the 6th Division and an assigned operational objective of Basra. As LTG Barrett’s forces moved north toward the city, they secured Sahil on the eastern bank of the Shatt al Arab and Mohammerah on the western bank at the junction of the Kuran River. These actions not only set the stage for movement on Basra, but also offered protection to the Sheikh of Mohammerah. In fact, on 20 November the Sheikh provided information that Turkish forces had abandoned Basra and moved north. British forces entered Basra on 21 November unopposed.

With the support of the Gulf sheikhs established through diplomatic efforts and this early demonstration of force, the expedition accomplished its original objectives. Subsequently, correspondence between British decision makers in Mesopotamia and India discussed the options of either holding in the vicinity of Basra city or continuing north toward Qurna. On 27 November, orders from India justified an advance for reasons including: the pending arrival of a reinforcement brigade from India, the “good moral effect” that it would have on the Muslim population, the available support from naval assets in waters navigable to 15ft draught, and the strategic position and natural protection offered by Qurna’s location at the junction of the Tigris and Euphrates. On 4 December, LTG Barrett’s forces moved north on warship-escorted river steamers and disembarked on the eastern bank three miles below Qurna. After two days of ground and naval battle, the Turkish garrison surrendered the city to the surrounding British forces. With


53 Ibid.


this victory, Barrett’s force not only controlled the confluence of the two rivers, it eliminated most of the Turkish 38th Division and added depth to the security of Basra and the oil refineries.\footnote{56 Barker, \textit{The Bastard War}, 38.}

During the first months of 1915, Turkish forces demonstrated little aggression and British forces underwent major reorganization. In March, the expanded expeditionary force became the 2nd Indian Army Corps, when Major General (MG) Gorringe’s 12th Division joined the 6th Division and its new commander MG Townsend. General Sir John Nixon arrived from India to take command of the Corps in April. Establishing the control of the Basra district and the security

\footnote{56 Barker, \textit{The Bastard War}, 38.}
of the oil infrastructure as the campaign’s primary objectives, Nixon’s instructions from superiors in India also asked him to submit a plan for a possible advance toward Baghdad.\footnote{A. Kearsey, \textit{A Study of the Strategy and Tactics of the Mesopotamia Campaign 1914-1917} (London: Aldershot, 1934), 20.}

After the British repulsed Turkish offensive threats to Qurna and Basra in mid-April, Nixon ordered Gorringe and two brigades of his 12th Division to Ahwaz to meet a growing Turkish threat along the Kuran River and repair damage to the pipeline that had halted the flow of oil earlier in April. Although Gorringe was unable to draw the Turks into decisive battle, by early May repair of the pipeline allowed oil to again flow south to Abadan.\footnote{Barker, \textit{The Bastard War}, 61–2.} With concerns over oil and the threat from the east addressed, Nixon now looked for offensive options to the north and the west. Soon the town of Amara emerged as a target that would both fall within the parameters set by India and satisfy his intent to keep the campaign on the offensive. Nixon assigned MG Townsend’s 6th Division with the task of conducting offensive operations aimed at extending British control from Qurna to Amara. Due to flooding along the banks of the Tigris in late May, Townsend had to move the preponderance of his forces north in a variety of vessels that became known as “Townsend’s Regatta.”\footnote{Kearsey, \textit{Mesopotamia Campaign}, 26.} British naval guns and shore artillery allowed for quick reduction of the Turkish positions to the north of Qurna, and a subsequent naval chase up the river ended with Amara’s disorganized Turkish forces surrendering to Townsend on 3 June.

The main British forces in theater were subsequently disposed at four main locations: Amara, Qurna, Ahwaz, and Basra.\footnote{British Official History, 1: 267.} General Nixon estimated that the main Turkish troop concentrations concurrently occupied Baghdad, Kut al Amara (Kut), and Nasiriya.\footnote{In light of this, he viewed the British western flank as vulnerable to Turkish action south along the Euphrates from Nasiriya. Despite assurances from his superiors in India that he would receive no...}
reinforcements, Nixon assigned MG Gorringe and elements of his 12th Division the task of taking the city that stood more than fifty miles north along the Euphrates from Qurna. Terrain conditions again dictated that a majority of the movement be conducted via water. After an 18-day movement and 10-day mud-soaked battle, Gorringe’s forces gained control of Nasiriya on 25 July and forced the retreating Turks north along the Hai River towards Kut.62

Nixon’s forces now occupied the entire region surrounding the city of Basra. However, his force concentrations at Ahwaz, Amara, and Nasiriya were all at great distances from the former advanced base at Qurna. British LOCs stretched over 200 miles from the sea northward to Basra and in three directions along the Kuran, Tigris, and Euphrates Rivers. Despite circulating opinions that such a vast area was already too large for two divisions to hold, Nixon extended his plan and advocated the occupation of Kut, 153 miles further north along the Tigris from Amara.63 On 30 July, the Secretary of State in India did urge caution based upon limited river transport and lack of reinforcements, but by 26 August Nixon’s desired advance on Kut received sanction.64 This advance would mark the first movement beyond the Basra district.

Through the end of August and into September, MG Townsend moved the three brigades of his 6th Division north along the river towards Kut. Turkish forces had established their defensive positions five miles to the south of the city at Es Sinn. On 26 September, Townsend’s division struck on both sides of the river. By 28 September, Turkish forces had retreated north from their battlefield positions and vacated nearby Kut as well.65 Immediate naval pursuit of the retreating enemy met delay because of the river’s low water level, but over land pursuit of the

61 Ibid., 269.
64 Ibid., 35.
65 Barker, *The Bastard War*, 90.
Turkish rear guard continued north in the direction of Baghdad. On 3 October, Townsend received reports that the retreating Turks were occupying previously constructed defensive works at Ctesiphon, just south of Baghdad. He quickly halted his pursuit, consolidated his forces in Aziziya (fifty miles north of Kut), and waited to receive direction regarding further movement.

For the next month, intense deliberation occurred between officials in London, India, and Mesopotamia regarding the feasibility and value of establishing Baghdad as an operational objective. Against the advice of MG Townsend, General Nixon relayed to his superiors that he favored the advanced and felt confident that he could defeat the Turks and occupy Baghdad without any reinforcements. Despite the political attractiveness of the potential victory, decision makers in India and London were more cautious. Late in October, the General Staff at the War Office in London expressed the view that two additional divisions would constitute the force necessary to take and hold Baghdad. However, the allure of continued success was great within both military and political circles, and resources and troops took considerable time to get to the front. Officials in London and India eventually gave most credence to Nixon’s support for the advance, and by late October, the Viceroy established Baghdad as an operational objective.

On 21 November, Townsend’s 6th Division attacked the Turkish positions at Ctesiphon with a force of approximately twelve thousand men. Despite three days of effort against defensive positions occupied by a similarly sized Turkish force, Townsend failed to achieve his objective. By 24 November, he realized that he must withdraw. Similar to the Western Front, this battle demonstrated the strength of a Turkish defense close to its supply base and was indicative of the problems that the offensive-minded British leadership would face later in the campaign.

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66 Ibid., 90.
68 Ibid., 46.
69 Ibid., 47.
70 Barker, *The Bastard War*, 98.
With drastically high casualty numbers and Turkish forces in pursuit, the 6th Division’s retreat ended in Kut nine days later. Sentiment in favor of further movement down river surfaced, but because General Nixon “looked at the withdrawal as a temporary check to further offensive operations” his focus quickly turned to reinforcement. By 7 December however, Turkish forces surrounded the city and the siege of Kut began.

The 6th Division resisted initial enemy attempts to overrun Kut. However, it soon became clear that the reinforced Turks were less concerned about the British inside the surrounded city than they were with establishing strong defenses to meet the British relief efforts that were soon to move north from Basra. Two new Turkish divisions moved past Kut on both banks of the river and established a series of strong positions south of the city. Each passing day lessened the supplies at Kut and provided the Turks more time to reinforce their new defenses.

Despite an increase in British supply and reinforcement priority for the theater, all efforts to relieve Kut between January and April 1916 would fail. On 3 January, LTG Sir Fenton Alymer’s newly formed Tigris Corps moved north from Ali Gharbi towards Kut with a force of 19,000 men from the 7th Division, two independent infantry brigades, and the 6th Cavalry Brigade. His forces now faced an entrenched enemy estimated to be five Turkish divisions with a total of 22,500 men. The Tigris Corps found initial success at Sheikh Saad in January, but subsequent attacks north at Wadi, Hanna, Es Sinn, Dujaila Redoubt, Bait Aisa, and Sannaiyat all failed to break the Turkish defenses south of Kut. On 29 April, General Townsend surrendered Kut and his garrison of nearly 10,000 soldiers, ending the initial campaign of the British in Mesopotamia.

73 Ibid., 57.
75 Ibid., 155.
Understanding Physical Geography

The physical and climatic characteristics of Mesopotamia were, of course, comprehended in a general way. But it was not until a considerable military force had been thrust out into the country that we appreciated the truth of the Arab proverb: - “When Allah had made Hell he found it was not bad enough. So he made Iraq – and added flies.”

— Major R. Evans, *Mesopotamia 1914–1918*

Soldiers of most armies expect and prepare to fight in adverse conditions and varying terrain. However, decisions made by British leadership during the Mesopotamia Campaign asked their forces to execute operations that did not reasonably match their capabilities to the operational environment. Despite early successes, the evidence ultimately demonstrates that leadership’s lack of understanding for the linear and frictional limitations posed by Mesopotamia’s physical geography contributed to British operational failure.

The harsh climate of Mesopotamia in 1914 was quite different from that which the British ranks had previously experienced in Western Europe or in India. Often mistaken as a perpetually hot and dry desert, the fluctuations in both seasonal temperature and precipitation caused one campaign historian to describe the climate as inappropriate for sustained conventional offensive operations. In fact, an Indian sepoy in the British ranks told a correspondent that the climate of “the Punjab [was] a health resort compared to Mesopotamia.” That same British correspondent remarked that in Mesopotamia:

We are in a country of excess, where the elements are never moderate or in humour; and there is something almost Biblical in the way the deities of this ancient land conspire to punish us. There was malice in the sky and the soil; malice of heat and drought; hunger and thirst and flies; damp and cold; fever and ague, flood, hurricane, and rain; … Allah was certainly with the Kaiser and Islam.

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79 Ibid., 72.
Mesopotamia’s hot season ran between the months of May and October. During its height, June through September, temperatures often rose “to 125 or 130 degrees in the shade.”\textsuperscript{80} In contrast, the winter months between November and April brought both a significant decrease in temperature and an increase in precipitation. It was common for the nightly temperature to drop below freezing from December through February, and almost all of the region’s annual rainfall arrived between October and April.\textsuperscript{81} This climate helped Mesopotamia become “a hot-bed of raving disease” for the British forces, and its effects were both cumulative and acute.\textsuperscript{82} The normal unsanitary environmental surroundings of a conventional campaign were made worse by the lack of facilities, questionable water sources, and a preponderance of insects.\textsuperscript{83} Sickness continuously ravaged the British ranks. In one instance during operations along the Kuran River in the spring of 1915, a British force of 12,556 suffered 2,772 sickness-related admissions to the hospital within just a two-month period.\textsuperscript{84} By May of 1915, “the extreme heat and trying conditions … had a considerably adverse effect on the health of the British troops. Exposure to the sun, lack of fresh vegetables and the indifferent nature of the drinking water had caused much sickness, and many of the force were suffering from diarrhea or dysentery.”\textsuperscript{85} By January 1916, sickness and earlier privations reduced some divisions to “a strength of little more than what one of its brigades should have been.”\textsuperscript{86}

The landscape of lower Mesopotamia between Basra and Baghdad in 1914 was “a vast area of featureless desert, of which the monotony [was] only broken by the great rivers and the

\textsuperscript{80} Neave, \textit{Remembering Kut}, 55.
\textsuperscript{81} \textit{British Official History}, 1: 5, 8.
\textsuperscript{82} Ibid., 1: 8.
\textsuperscript{83} Barker, \textit{The Bastard War}, 28, 42.
\textsuperscript{84} \textit{British Official History}, 1: 234.
\textsuperscript{85} Ibid., 1: 232.
\textsuperscript{86} Barker, \textit{The Bastard War}, 181.
[southern] marshes” into which they spilled. As vital water sources and transportation routes, the river corridors hosted much of the region’s popular activity. With settlements scattered throughout their lengths, the rivers facilitated regional trade and allowed irrigation systems to support local agricultural endeavors. However, after only a few hours of winter rain, the river basins soon became tracts of “glutinous mud which [made] movement of troops almost impossible.” The rains also brought a substantial rise to the river water levels. This often caused them to overflow their banks and inundate any surrounding area left unprotected. During these periods, overland passage along the Tigris, Euphrates, and Kuran corridors became unpredictable, and most of lower Mesopotamia turned into fields of mud or inland marshes. River traffic during these periods was susceptible to increased currents, unstable riverbanks, and shifting channels, while the lack of a viable road network severely hampered any overland advance. The dust, wind, and illusionary effects of the mirage also wreaked havoc upon both the functionality of machinery and the accuracy of observation.

Despite these environmental challenges, the British exceeded all of their original expectations within the last two months of 1914 alone. Fao, Abadan, Ahwaz, Basra, Qurna were all in British hands before the end of the year. And after repulsing Turkish efforts near Basra and Ahwaz early in 1915, subsequent objectives at Amara and Nasiriya added depth to the British protection of lower Mesopotamia. British victories through the late summer of 1915 had been relatively easy. The 919 casualties suffered during their defeat of a Turkish attack on Basra produced the highest single-battle casualty count for the British, and an incredibly small force of one naval launch and eight sailors received the initial Turkish surrender at Amara. The quick success that ran throughout the first ten months of the campaign led General Nixon and the

88 Ibid., 7.
89 Barker, *The Bastard War*, 41.
British leadership to focus on the opportunities posed by operations within the linear river corridors. The rivers had provided a water supply, a transportation route for supplies and communication, and most importantly, an operational maneuver axis that allowed for the quick penetration of the enemy terrain (Reference Map in Appendix A).

However, the distances from the British base at Basra to the front lines drastically increased with each of these victories, and the major overland advance (Amara to Aziziya) occurred during the dry season. As the distances grew and enemy efforts strengthened, British efforts would soon experience the operational constraints offered by the river basins. Flooding, constricted and saturated maneuver space, unpredictable water conditions, as well as the constant security needed for supply depots, communication outposts, and river traffic were only some of the obstacles that hindered later British efforts. The misunderstood reality of the campaign’s initial success was that victory had come over an enemy whose strategy was “to retire from defensive position to defensive position into the interior of the country, so as to gain time during which those factors which constantly tend to weaken the tide of the offense - … heat, disease, etc. - may operate on the attacker.”

What the Turks realized and the British would painfully discover during their failed relief of Kut, was that “the country [was] admirably suited to defensive tactics. The water-cuts could be quickly formed into effective trenches [that were] hard to locate. The flat plain [gave] the enemy an excellent field of fire, [while] the lack of cover and the inundations under control of the enemy added to the difficulties of the attack.”

90 Ibid., 216, 262.
92 Pitman Press, British in Mesopotamia, viii.
risks of operational overextension, and the need for caution within the theater. 93 Even before the war “expert military opinion … recognized that no deadly blow could be dealt at Turkey by an advance up the rivers.” 94 In fact, evaluations condemning the offensive suitability of Mesopotamia resonated from offices including the Staff College in India. After a pre-war exercise regarding possible conflict with Turkey, the directors of the College ruled out extended action against Baghdad because of the “distances and difficulties” involved. 95 Calls for a defensive posture resonated from sources outside the government and military hierarchies as well. In an April 1915 lecture to the Royal Geographic Society, influential British geographer David Hograth described the challenges of Mesopotamia’s physical landscape. At a time when British forces held Basra, Qurna, and Ahwaz, he warned that the “the conditions are certainly not favourable to active operations beyond the points already attained by our forces, [and] … least of all should an advance on Baghdad, which lies nearly 600 miles by river from the Persian Gulf, be expected.” 96 This regard for the dangers of continued attack not only reached the leadership in theater, it resonated from within it. MG Townsend himself expressed concerns about overextending along defensive terrain as earlier as 8 August 1915. 97 Nevertheless, General Nixon desired to press the offense, and his opinion influenced officials outside the theater. His desired objective received sanction and eventually pushed Townsend’s 6th Division over 300 miles north of Amara. However, success ended abruptly at Ctesiphon and further deteriorated into the siege at Kut.

General Nixon’s support for the advance on Turkish forces at Ctesiphon reflected an underestimation of both the linear constraints and friction posed by his operational theater. With only his own weakened division available for the objective, MG Townsend did not have the same

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95 British Official History, 1: 70.
offensive optimism. He understood that his “6th Division had had very hard work, and almost continuous fighting in a very trying climate” throughout the summer of 1915.98 While back in India due to sickness, Townsend told the Commander-in-Chief for India that he would need at least an army corps of two divisions to move on Baghdad and sufficiently guard his line of communications.99 Neither officials in India nor his commander in-theater would heed his advice. Upon his return to Mesopotamia Townsend wrote, “It was evident to me that Sir John Nixon intended me to make a dash to Baghdad with my present inadequate force.”100 Disagreeing with this mindset, Townsend’s diary continues, “The Army commander [Nixon] does not seem to realize the weakness and danger of his line of communication. We are now some 380 miles from the sea, and we have only two weak divisions, including my own, in the [entire] country!”101 Townsend felt that the prestige of taking Baghdad was foremost in his commander’s mind, and that Nixon’s attitude remained similar to when he responded to an earlier troop request by stating, “You must cut your suit according to your cloth.”102 Despite the evident signs of increasing strain upon the force appearing as early as July 1915, “Nixon’s audacity never seems to have allowed him to see any cloud upon his horizon.”103

In addition to his concern about overextending north toward Baghdad, MG Townsend was leery of the friction that plagued river traffic and the rearward lines. River navigation north of Kut was tenuous, and the “the long line of communications lay through a country of hostile Arabs, who never refrained from firing at our convoys … and would rise, from Kut to Kurna, if once our little force was checked. It was guarded only by two weak brigades of infantry which

97 Townsend, *Campaign in Mesopotamia*, 84-5.
99 Townsend, *Campaign in Mesopotamia*, 86.
100 Ibid., 127.
101 Ibid., 124.
102 Ibid., 99.
composed the 12th Division, which was not only scattered all the way from Basra to Kut-al-Amara, but in addition supplied the garrisons for Nasiriyeh, Ahwaz and Amara.”

Over a month before the eventual advance, Townsend sent a futile message to Nixon voicing these concerns and stressing consolidation within the Basra district. However, as deliberation in India and London considered the feasibility of further advance, Nixon told his superiors that he was confident that he could beat the Turks at Ctesiphon and hold Baghdad without any addition to his present force.

Upon the eventual withdrawal from Ctesiphon, Townsend’s previous concerns became reality. Not only did the 6th Division have to contend with a pursuing enemy, but emboldened Arabs continuously harassed the flanks, and three steamers, the Shaitan, Firefly, and Comet, ran aground in the Tigris shallows and had to be abandoned.

Focused discussion regarding Nixon’s choice to defend Kut will follow later in this subsection. Yet it is important to note that this decision not only established a questionable defensive position, but it also meant that the advance of the subsequent relief force would occur over inhospitable terrain during the worst part of the year. The cold rain, inundated terrain, high river level, and fluctuating weather conditions of the Mesopotamian winter all added friction to the limited maneuver space now occupied by Turkish trenches. After Nixon ordered Townsend to hold at Kut, the closest British position was 70 miles to the south at Al Gharbi. This is where the Tigris Corps mustered for the relief offensive. Tied to the river as a water source and transport line as they moved north, the Corps fought seven battles within a saturated river corridor often flanked by deep marshes. The corridor ranged from just one to eight miles wide (Reference sketch in Appendix A). But in reality, much of that space was either impassible or covered by Turkish trenches. The scenes became similar to those faced during attacks on the Western Front.

104 Townsend, *Campaign in Mesopotamia*, 128.
The churned and muddied terrain severely hampered all infantry and cavalry actions within the confined maneuver space. The artillery movement in support of the advance was even more arduous. In one case, at Bait Aisa, the guns could not get forward at all to support the infantry because of the terrain. Bad weather postponed all but one of the planned attacks and continuously hampered air reconnaissance. The cold rain filled the trenches, swelled the river, and soaked the ill-equipped soldiers. Many died of exposure or drowned in the trenches, and the swift Tigris current swept away the only British bridging assets. The flat ground and illusions of the mirage continuously hampered observation and effectiveness of the artillery against Turkish forces “adept at digging and concealing their positions.” In their failed attempt to relieve the 9,250 soldiers besieged at Kut, the Tigris Corps suffered over 24,000 casualties. In his earlier refusal to allow Townsend to retreat south of Kut, Nixon underestimated the friction that the Tigris Corps would face during that winter’s relief efforts. Discussion will now turn to the choice of Kut as a defensive position in of itself.

Kut

In 1916, the city of Kut was a significant population center at the confluence of the Tigris and Hai Rivers, but it was a less than optimal place to establish a defense. Turkish forces demonstrated a realization of this during the British offensive the previous September when they elected to establish their defenses five miles south along the Tigris at Es Sinn. General Nixon’s refusal to withdraw south of the city in December 1915 demonstrated a misunderstanding or disregard for the constraints posed by its physical geography.

107 Ibid., 221.
108 Ibid., 187, 218, 179.
109 Ibid., 161–3.
When MG Townsend’s 6th Division arrived at Kut on 3 December, it was battered and weary. It had just endured a three-day attack against an entrenched enemy, suffered almost five thousand casualties, and retreated under pressure and across “arid, scrub covered desert” for over seven days. Townsend looked “to rest and refresh his troops from the large supply depots stored at Kut.” From the moment of his arrival however, sentiment arose questioning the site’s appropriateness and defensibility. On 2 December, “the commander at Kut came out to meet MG Townsend as he approached the city, and asked him not to stay there but to take up a position at Es Sinn” further to the south. This officer knew what Townsend himself would soon come to realize — that the enemy would only need a small force to surround, hold, and threaten the city.

In a request to General Nixon soon after his arrival, Townsend “proposed to withdraw [south] to Ali Gharbi” and escape the confinement offered by Kut and its narrow peninsula. However, Nixon was “anxious to concentrate as far forward as possible in order to resume the offensive against Baghdad,” and thus “refused to consider the selection of a defensive position” further south. With a rapidly approaching enemy and no friendly reinforcements available, Nixon’s refusal indicates that he failed to understand the dire results that Kut’s physical geography would produce.

Two hundred-eighty five miles north of Basra and seventy-five miles north of Ali Gharbi, Kut encompassed a land area two miles long and one mile wide within a loop-shaped peninsula formed by the meandering Tigris River (Reference sketch in Appendix B). Its location at the meeting point between the Tigris and Hai Rivers and its role as the center of local grain trade

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110 Ibid., 115, 117.
111 Kearsey, Mesopotamia Campaign, 53.
112 Pitman Press, British in Mesopotamia, 34.
113 Ibid., 36.
114 Kearsey, Mesopotamia Campaign, 53; Pitman Press, British in Mesopotamia, 35.
made it a valued possession in terms of supply and communication. Its value as a defensive position in the face of a surrounding enemy was minimal.

By 7 December, the Turks surrounded the city, destroyed its one bridge, and possessed weapons range on its occupants from all sides. 115 “The few defenses that had been erected around the town had been planned for its role as a supply post, and it was in no sense a fortified enclave. [Only] a line of four blockhouses, connected by a barbed wire fence … extended across the mile long neck … [that] contained the town.” 116 With only a few canals and dirt mounds scattered throughout the peninsula, the featureless landscape provided little in the way of existing defensive positions.

The Tigris River was 200 to 300 yards wide around Kut, but its water depth continuously fluctuated. As demonstrated by British difficulties when pursuing the enemy retreat from Es Sinn earlier in the year, any naval activity in the vicinity demanded caution. That December the water was at some points shallow enough to wade across, but the rains and thaws of the new year brought increased depth and surrounding area inundation. 117 This increased water level made life in the constructed trenches of Kut miserable.

These physical characteristics made Kut a far from optimal place to establish a defense in the face of an advancing enemy. With no viable retreat or breakout options once surrounded and no immediate reinforcements available, Nixon’s decision to establish the 6th Division’s defense at Kut demonstrated a misunderstanding of the potential effects of physical geography. His decision allowed the Turks to cut the linear line of retreat and isolate the British 6th Division.

115 Kearsey, Mesopotamia Campaign, 57.
116 Barker, The Bastard War, 121–2.
117 Ibid., 122.
Understanding Human Geography

It was believed that if the Turks could be driven out of Basra, … the Arabs would be disposed in our favour, or at least be turned aside from any enterprise against us.\textsuperscript{118}

\begin{flushright}
— C.R.M.F. Cruttwell, \textit{A History of the Great War}
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Social, political, and economic decisions made by the British leadership during the Mesopotamian Campaign demonstrated a general disregard for understanding and appreciating the opportunities and constraints posed by the theater’s human geography. In a few instances, the British did utilize the natives for military benefit. However, overriding attitudes and policies made the British efforts susceptible to population-based friction along both the lines of advance and the lines of retreat.

The native population of lower Mesopotamia comprised a complex societal structure primarily based on generations of tribal traditions, yet somewhat altered by the influence of outsiders and occupiers. To the south of Basra, Sheikh Mubarak of Kuwait and his ally Ibn Saud, head of the Wahhabi state, controlled areas and populations whose proximity to the British-controlled Persian Gulf and perpetual problems with Ottoman authorities, placed their loyalties within the British sphere of influence.\textsuperscript{119} North along the Shatt al Arab, the British-sponsored Sheik of Muhammerah held sway over the tribal areas that extended north-west along the oil pipeline route through southern Arabistan.\textsuperscript{120} Yet despite his general influence throughout this area, the loyalties of the Bakhtian, Bawi, and Cha’ab tribes would often waver.\textsuperscript{121} Further to the north, east, and west of Basra, overall tribal loyalties and intentions were not well defined.

\textsuperscript{118} Cruttwell, \textit{History of the Great War}, 339.
\textsuperscript{120} Ibid., 11.
\textsuperscript{121} \textit{British Official History}, 1: 221.
In a conglomeration of nomads, semi-nomads, and marsh Arabs, tribal law and customs controlled the local populations. Tribal blood feuds occurred regularly, and “the Turkish administration was wont deliberately to foster tribal jealousies from sheer inability to exercise effective control.”\(^{122}\) The Muntafik Tribal Confederation controlled the area south of the Euphrates River from north of Nasiriya to the desert west of Basra and across the river north along both sides of the Hai River.\(^{123}\) The Albu Mohammed tribe inhabited both banks of the Tigris from Qurna to Amara, and the often-hostile Beni Lam tribe lived along the north bank of the Tigris from northeast of Kut south to Amara and eastward to the Persian border.\(^{124}\) The marsh Arabs who lived in the flooded areas north of the Shatt al Arab were “offshoots of the Muntafik, Albu Mohommed, and Beni Lam tribes,” but had to concern themselves more with daily survival within the shifting wetlands than they did with larger tribal structures.\(^{125}\)

Within this social-political atmosphere of confederations, tribes, sub-tribes and clans, the authority of the sheikh “was always greater than that of the Turkish law and administration.”\(^{126}\) Turkish justice code nominally influenced the cities, while tribal law controlled the countryside. The Turks ruled Mesopotamia under the vilayet system in which Turkish officials presided over the districts of Mosul, Baghdad and Basra.

The administration [however] was thoroughly inefficient and was only effective in certain limited areas — chiefly in some of the larger towns. Each tribe was assessed at a certain revenue and so long as that was paid the tribe was practically exempt from Turkish authority. The collection of this revenue gave constant trouble and not infrequently led to open rebellion…. The methods of this government — its corruption, fraud, and violence — aroused great discontent throughout Mesopotamia.\(^{127}\)

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\(^{122}\) Ibid., 1: 11.


\(^{124}\) Ibid., 79.

\(^{125}\) Ibid. 75, 78.


\(^{127}\) Ibid., 1: 13, 17.
In light of this tension between the population and the Ottoman authorities, some opinions “held that it would be desirable if the Arabs could be asked to join actively with the British.”\textsuperscript{128} This reasoning stressed the military and political advantages “in obtaining their early cooperation, in deterring them from joining the Turkish forces, and in avoiding any semblance of conflict with them.”\textsuperscript{129} However, British decisions throughout the campaign never allowed their forces to take full advantage of this anti-Turkish sentiment and benefit from the opportunities potentially posed by a supportive population.

Through the pre-war efforts of British representatives to the Turkish government, political officers, and regional experts like Gertrude Bell and Captain William Shakespeare, officials in both London and India understood the conflict between Ottoman and native structures and traditions.\textsuperscript{130} This knowledge allowed the British to obtain the loyalties of Ibn Saud and the Sheiks of Kuwait and Muhammerah, but political decisions hampered any ability to mobilize the opportunities or neutralize the constraints offered by the Arab population north of Basra. British authorities committed support to Saud, Kuwait, and Muhammerah because they occupied positions that were within the pre-war British sphere of influence; positions that assured Persian Gulf mobility and oil production; and positions that the decision makers knew that they would fight to retain.\textsuperscript{131} Their reluctance to make any commitment to the populations further north into the Basra district would present constant friction and threatened the campaign’s linear course.

Soon after the fall of Basra, Sir Percy Cox, Chief Political Officer to the campaign, and Lord Hardinge, the Viceroy of India, both made announcements to the city’s inhabitants publicizing Britain’s intent to hold the city and prevent any possible Turkish return.\textsuperscript{132} However,

\textsuperscript{128} Rothwell, “British War Aims,” 276; \textit{British Official History}, 1: 118.
\textsuperscript{129} Ibid.
\textsuperscript{130} Hefferan, “Geography, cartography, and military intelligence,” 515.
\textsuperscript{131} Rothwell, “British War Aims,” 276.
\textsuperscript{132} Busch, \textit{Britain, India, and the Arabs}, 17.
such public proclamation of intention would travel no further north during the campaign. In fact, both Cox’s and Hardinge’s statements would prove to be premature in the eyes of the home government. Although Hardinge often pressed Lord Crewe, Secretary of State for India, for London’s endorsement of annexing British held areas in Mesopotamia, no commitment ever materialized before the fall of Kut. Believing that the annexation of conquered territories before the war’s end could threaten relations with France and Russia, the British government failed to make any formal proclamation of their political intent in Mesopotamia.133 This policy of hidden intentions serviced the needs of London, but left serious doubt in the minds of the population. Without some assurance regarding the political future, the tribes north of Basra hesitated to commit themselves to British efforts, in part “for fear of Turkish reprisals.”134

The [Arabs] were in a difficult position. Their hatred of the Turk was genuine, and on the whole their sympathies were with us [Britain]: but against that must be set that fact … that evil in the form of Turkish misrule was perhaps preferable to the unknown possibilities of British rule, and last, and most telling of all, they did not know what we [the British] meant to do … we had given no definite promise as to the permanency of our occupation.135

Arab allegiances throughout the campaign tended to shift between the Turkish and British governments based upon force, prestige, control, or opportunity. In addition, Generals Barrett and Nixon made little effort to negotiate with the Mesopotamian tribes and displayed little care in fostering any substantial Anglo-Arab cooperation. In fact, British leadership rejected the cooperative overtures of the Muntafik tribes, and later conducted punitive operations against tribes to the east.136 Because of such actions, the tribes tended to either fight on the side of the Turks, or wait and show support for the more powerful force or area occupier.

134 British Official History, 1: 139-140.
135 Reynardson, Regimental Officer’s Diary, 77.
From the beginning of the campaign, the “shaikhs of the Muntafik confederation and of the Beni Lam tribes … took up arms on behalf of the Turks,” while others such as the Bawi and Cha’ab to the east in Arabistan wavered in their allegiance. Regularly sniped at since the first landing at Fao, the British soon faced Turkish forces that received sizeable man-power contributions from the surrounding Arab population. During movement to Qurna in early 1915, reports tell of Arabs engaged in “raiding by night and in guerilla hostilities by day.” And during a later 6th Division advance, opposing Turkish battalions were augmented by six hundred Arabs and “a formidable screen of several thousands of marsh Arabs armed with rifles who were hidden in the thick reeds of the marshes.” Ten thousand joined the Turks at the Battle of Shaiba west of Basra, and “thousands of Arabs” fought with the Turks in their failed defense of Nasiriya. In this manner, Arabs consistently lined the Turkish trenches and peripheries throughout the campaign.

Ignoring tribal negotiation and providing no indication of political intentions, the British often pushed the Arabs to fight with the Turks. However, the aforementioned animosity felt for their Ottoman administrators often caused Arab fighters and the surrounding population to switch sides as beneficial opportunities presented themselves. The British came to see the population as cruel, treacherous, and predatory in the way “they haunted the outskirts of the fight, plundered the wounded and stragglers impartially, harassed the retreat of the defeated side, hoisted white flags over their tents, and made professions of answering fidelity to whatsoever seemed to be in the ascendant.” In this fashion, the threat from the human environment fluctuated with demonstrated-power and presented-opportunity. For example, wounded and retreating Turkish

138 Ibid., 1: 163.
139 Neave, Remembering Kut, 13.
140 Kearsey, Mesopotamia Campaign, 20, 30.
141 Ibid., 6.
forces leaving the battlefield at Shaiba fell victim to Arab harassment and attack despite having fought on the same side during the actual battle. The British also suffered from local opportunism during their retreat to Kut when they “fought against the Arabs nearly the entire way.”

The decision by British leadership to pay inadequate attention to the elements of human geography not only fostered an atmosphere of wavering Arab allegiances, but it helped create an unpredictable and often hostile environment for the British lines of communication north of Basra. In this regard, the population presented a frictional force both at the battlefront and along the line of retreat. Even if not directly involved in the fight, Arab “natural tendencies prevented their remaining idle during the operations, and if he [an outsider] did not invite or accept their friendship he must be prepared to expect their hostility, i.e., his supplies and information would be cut off and his baggage and convoys plundered whenever opportunity offered.”

With British supply lines at one point stretching nearly 500 miles by water from Basra to Ctesiphon, a hostile population not only threatened resources and lives but also taxed the advancing British for forces to provide security at their supply and communication outposts. As the campaign progressed past Kut toward Baghdad, threats warranted assigning a brigade to provide LOC security. In addition, casualty ships carrying wounded British soldiers to Basra in November 1916 were “turned back three times by Arabs, who heavily attacked the ships from both banks of the river.”

With a reluctance to make any socio-political intentions known, the British might have taken advantage of economic opportunities presented within the Mesopotamian population. For the most part, this did not occur.

Economically, the tribes of lower Mesopotamia depended on their herds, seasonal agricultural endeavors, river trade, and loot. Unsurprisingly, money, not just physical force, often

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142 Neave, Remembering Kut, 28.
144 Kearsey, Mesopotamia Campaign, 43.
gained cooperation and support. The British used this to their advantage on two documented occasions. In the first case, negotiations with, and subsidy paid to the Sheik of Muhammerah and Bakhtiari tribesmen provided protection for the oil pipeline before and during the initial weeks of the campaign. The second instance involves the British advance from Qurna north toward Amara. In this operation, MG Townsend and his “regatta” of troop transports and small naval vessels faced a Tigris River littered with Turkish mines. Because of the flooded terrain, the river represented the only means by which to advance. To solve the problem “friendly natives were offered 400 rupees for every mine they fished up in the river, and not only were the waters cleared of these dangers, but it also kept the Arabs busily employed and prevented them from harassing [the] advance with their rifle fire.” Although the British demonstrated an understanding of the value of monetary-based support in these two instances, they failed to institute a consistent method of subsidy or welfare that would have freed their forces from the human uncertainties of the theater.

Decisions made by British leadership displayed a lack of understanding for the frictional forces presented by Mesopotamia’s human geography. This affected their efforts throughout the campaign. Not only did an undecided population provide the Turks with fighters, it created a human environment that consistently threatened British movement, supply, and communication.

**Case Study Conclusion**

Misunderstanding the opportunities and constraints posed by Mesopotamia’s physical and human geography contributed to the British failure during its 1914–16 campaign. The evidence demonstrates that despite early success, a general disregard for the human environment and an underestimation of the physical environment hampered their ability to meet all operational

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objectives. The British failed to take full advantages of the social, political, and economic opportunities presented within a malleable Arab population. Therefore, human elements of the environment often became frictional. Simultaneously, the often-alluring mobility posed by the river corridors appeared to overshadow the constraining elements of physical geography and contribute to linear overextension toward Baghdad and eventual surrender at Kut.

Section 5: The Geographies of the Arab Revolt

Operational Progression

British failures in the Dardanelles and Mesopotamia sparked interest in developing less obvious alternatives to penetrate the Middle East. Those “whose ideas for encouraging an Arab rising in return for pan-Arab self-government after the war began to win wider support.”

Realizing the threat that unoccupied Turkish forces posed to the Suez in 1915 and 1916, and the overall benefits of a second operational front, British contacts in Egypt began dialogue with Hashemite leaders in the Hejaz regarding a potential Arab uprising.

Stretching from Aqaba to Jeddah, the Hejaz encompasses most of the Red Sea coast and extends inland past the coastal ranges of what today is Saudi Arabia. During this period, the Ottomans controlled the Hejaz through garrisons at Mecca, Medina, and other small outposts along the coast and the Hejaz railway. This area represented the outer limits of the Ottoman Empire, and it was far from the administrative and political centers to the north at Damascus and to the east at Mosul and Baghdad. Its communication and resupply depended heavily upon the Hejaz railway that ran from Damascus, Amman, and Maan in the north, southward through the region to its endpoint at Medina.

147 Neave, Remembering Kut, 14.

148 Hefferan, “Geography, cartography, and military intelligence,” 516.
Much of the influential power in the Hejaz belonged to Sherif Hussein bin Ali, a recognized descendant from the prophet Muhammad, “the Amir of Mecca, and [the] custodian of the holy cities.”¹⁴⁹ His power and influence projected downward through his four sons: Ali, Abdulla, Feisal, and Zeid. The degrading and often harsh Ottoman treatment of the Arab people throughout the Hejaz, Syria, and Mesopotamia propagated the emergence of anti-Ottoman, Arab nationalist movements in centers such as Damascus.¹⁵⁰ Within this atmosphere of persecution and economic depression caused by the war’s stoppage of religious pilgrimages, nationalist sentiments and whispers of revolution began to take hold in the Hejaz.

The Arab Revolt began in June 1916. With assistance from British naval and artillery assets, Jeddah, Mecca, Rabegh, and Taif all soon fell to the Sherifan forces. However, Turkish forces at Medina withstood Arab attacks. Relying on artillery, resupply, and reinforcement provided by their railway, they soon took the offensive and looked to destroy Arab forces in the hills surrounding Medina as well as retake Mecca and the Red Sea ports. With the forces of Abdulla in Jeddah and those of Ali in Rabegh, Feisal stood in the vulnerable position of defending the routes to Mecca with overmatched and ill-equipped forces.¹⁵¹ This Turkish offensive severely threatened the Revolt’s initial success and made the objective of liberating Medina appear unlikely.

¹⁵¹ Lawrence, Seven Pillars of Wisdom, 94–6.
It was at this point that British intelligence captain, T.E. Lawrence, first met Feisal and his forces in order to assess the progress and potential of the revolt for British authorities in Cairo. Through his prolific writings, publicized persona, and post-war support for Arab independence, Lawrence eventually became the iconic western representation of the Arab Revolt. Having spent years studying the region and working on archeological digs and cartographic expeditions, Lawrence thoroughly understood the landscape and peoples involved in the uprising.\footnote{Suleiman Mousa, \textit{T.E. Lawrence—An Arab View} (London: Oxford University, 1966), 48.} Although his true effect on the revolt is in dispute, he did leave a detailed and descriptive firsthand account

\footnote{Hart, \textit{In Arabia and After}, 97–8.}
of its progression. Composed shortly after the war, the peer-reviewed descriptions, characters, and operations detailed within *Seven Pillars of Wisdom* and other writings provide the reader with a chronological narrative of the Arab Revolt. Far from claiming preeminence, his introductory chapter to *Seven Pillars* acknowledges the other British agents working with the Arabs. Moreover, he admits that his writing is not a comprehensive history of the Arab movement, but rather of his experience within it. *Seven Pillars* was “a designed procession of Arab freedom from Mecca to Damascus” that he took upon himself to write because of a “fluent pen, a free speech, and a certain adroitness of brain.” His descriptions of the three elements vital to Arab success: the algebraic, the biological, and the psychological led to his fame as a progenitor of irregular warfare strategy and tactics.

Despite the ongoing Turkish offensive, Lawrence was optimistic about the chances of Arab success in the Hejaz. He took these findings and Arab requests back to Cairo. The British command would not permanently re-assign Lawrence as an advisor to Feisal until December 1916. By then, the Turks had pushed Feisal’s forces west toward the port of Yenbo. In part because of the continued threat posed by Royal Naval forces, Turkish forces failed to press the attack to either Faisal’s forces at Yenbo or Ali’s forces in the port of Rabegh. At this point, Arab operational efforts shifted focus from the Turkish strength at Medina to the port city of Wejh.

Early in 1917, Abdullah moved his forces north to occupy the Turkish front while Feisal, Lawrence, and British Naval assets executed a joint operation to capture Wejh. Despite the challenges posed by the 200-mile overland movement and the necessary naval coordination, Wejh fell to Arab forces on 28 January 1917. This success altered the threatening Turkish disposition in the Hejaz. “The Turkish advance on Mecca was stopped short,” they fell back on

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153 Lawrence, *Seven Pillars of Wisdom*, 23.
154 Ibid., 192–6.
155 Lawrence, *Seven Pillars of Wisdom*, 157.
Medina, and “were compelled to scatter forces along the Hejaz railway.”156 The Holy City was no longer threatened and it would remain in Arab hands through the end of the war. The capture of this operational objective provided the Arabs with a vital base in the northern Hejaz; allowed for continuous forays against the Hejaz railway; and allowed the revolt to gain men, terrain, and legitimacy within previously untapped tribal areas to the north.157 With British General Sir Archibald Murray beginning to press in Sinai, Feisal at Wejh, and his brother Abdulla between Wejh and Medina, the aim of the Turks in Arabia became defensive only.158

In March and April 1917, General Archibald Murray failed in Britain’s first two attempts to push forces up the Mediterranean coast past Gaza and into Palestine. After constructing an intricate supply line from Egypt through the Sinai, Turkish lines held against his attacks at both the first and second Battles of Gaza.159 Back in the Hejaz, ideas of advancing on Akaba, the port city at the northern tip of the Hejaz, began to swirl within both British and Arab circles. Successful operations against the railway continued throughout the spring. Akaba however, was “the only Turkish port left in the Red Sea, the nearest to the Suez Canal, the nearest to the Hejaz railway,” and it sat on the exposed right flank of Sir Archibald Murray’s army.160 Realizing that “so long as the Turks held Akaba they might use it to threaten the rear of the British advance into Palestine,” initial British plans to take the city called for the use of regular soldiers in a naval, amphibious, and overland operation.161 Lawrence stressed to Murray and his other superiors that as seen in Gallipoli, the observation and fire from the coastal hills would prove costly to any

157 Ibid., 55–6.
158 Lawrence, *Seven Pillars of Wisdom*, 157.
160 Lawrence, *Seven Pillars of Wisdom*, 167.
regular attack. Akaba “would be best taken by Arab irregulars descending from the interior.” Murray, who had a regular brigade already earmarked for the operation, accepted this Arab course of action. Therefore early in May, Lawrence, Auda Abu Tayi, the paramount sheikh of the Howeitat tribe, and a small number of Arab fighters started a “northward expedition which was to end with the capture of Aqaba” on 6 July 1917. Obtaining this objective proved valuable to both British and Arab aspirations. The capture of Akaba diverted considerable Turkish reinforcements and supplies to the Hejaz, protected the right flank of British forces in Palestine, helped put an end to German propaganda in southwestern Arabia, and removed any danger of a German submarine base on the Red Sea. In the Arab camp, discussions of advancing all the way to Damascus began with the earlier capture of Wejh. In Lawrence’s view however, obtaining Akaba, “was essential to prop open the door to Syria.”

General Sir Edmund Allenby, who had taken over command from Murray in Cairo on 27 June 1917, understood the importance of Akaba for both British and Arabs efforts. While in Egypt after the victory, Lawrence posed to Allenby the value of Feisal’s forces to any subsequent British attack north into Palestine. The new Arab base at Akaba stood only 100 miles from the British line yet 800 miles from Mecca, so after the Sherif’s agreement Feisal’s forces transferred into Allenby’s command. Therefore, the last operational objectives of the Arab campaign became nested within the overall British operations. Both campaigns aimed at Damascus, thus the overall Arab goal remained intact. As described by Lawrence, “Our capture of Akaba … gave us the task of helping the British invade Syria. The Arabs working from Akaba became virtually the

162 Lawrence, Seven Pillars of Wisdom, 168.
164 Wavell, The Palestine Campaigns, 56.
165 Hart, In Arabia and After, 192.
right wing of Allenby’s army in the Sinai…. Meanwhile we organized the Akaba area as an unassailable base from which to hinder the Hejaz railway.”167

Allenby’s forces broke the Beersheba line and took Gaza in early November 1917, and then moved north to capture Jerusalem that December. In February 1918, British forces advanced east into the Jordan Valley and captured Jericho.168 However, efforts in late March to gain a foothold on the eastern bank of the Jordan at Amman were not successful.169

167 Lawrence, Seven Pillars of Wisdom, 8.
169 Ibid., 182.
Throughout this period of early 1918, Arab forces continued attacks along Turkish railway, supply, and communication links to the south and east of Allenby’s main force. In February, Arab fighters defeated Turkish forces and destroyed valuable supply stores at Tafila, “the knot of villages commanding the south end of the Dead Sea.” The following month, Arab forces hit targets around Maan in support of Allenby’s failed attempt at Amman.

In late March, Allenby received guidance from London to take up a defensive posture in Palestine because “all troops that could be spared would be required for France” where the Germans had launched an offensive. Allenby lost “two full divisions, nine yeomanry regiments, and 23 infantry battalions” to the European theater. Despite the priority given to replenishing his main Army ranks, both British and Arab efforts throughout the summer of 1918 aimed at keeping Turkish attention to the east of the Jordan River. Small raids and incursions continued to attack Turkish communication and supply infrastructure in preparation for the British autumn advance north from Jerusalem.

Within his plan of attack, Allenby provided the Arab forces with their final objective before Damascus. He assigned them the mission of cutting Turkish rails and communications to the north and west of Deraa. While the main British forces struck the Turkish Seventh and Eighth Armies west of the Jordan River, this Arab objective would sever communication and reinforcement capability from the north, threaten the rear of the Turkish Fourth Army east of the Jordan River, and focus overall Turkish attention to the east during the advance’s initial stages. On 16 September, the planned Arab raids and Royal Air Force bombardment of Deraa commenced, and within forty-eight hours, the operation surpassed its intended goals. Arabs cut

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170 Lawrence, Seven Pillars of Wisdom, 469.
171 Lawrence, Revolt in the Desert, 225.
172 Wavell, The Palestine Campaigns, 183.
173 Hart, In Arabia and After, 282-83.
the lines in all directions, and the enemy reacted by sending part of their reserve from Haifa east
towards Deraa and away from Allenby’s looming thrust.\textsuperscript{175}

Between 19 and 21 September, Allenby’s forces routed the Turkish Seventh and Eighth
Armies to the west of the Jordan River in the advance now known as the Battle of Megiddo.
Following their success at Deraa, Arab forces moved north to Sheikh Saad village to monitor the
main British advance and subsequent Turkish retreat.\textsuperscript{176} Allenby issued orders for the advance on
Damascus on 25 September, but Turkish resistance to the British in the west and Arabs in the east
was minimal. By 30 September, the roads around Damascus “were crowded with the columns of
retreating Turks.”\textsuperscript{177} On 1 October, both Arab and British forces moved into Damascus.

\textbf{Understanding Physical Geography}

The Hejaz war was the fight of a rocky, mountainous, barren country (reinforced by a
wild horde of mountaineers) against an enemy so enriched in equipment by the Germans
as almost to have lost virtue for rough-and-tumble war.\textsuperscript{178}

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\textit{Seven Pillars} and other works including Colonel A.P. Wavell’s 1928 \textit{The Palestine
Campaigns}, provide descriptions of the harsh terrain and climate encountered by forces involved
in the Arab Revolt. These conditions provided both opportunities and constraints to Arab and
Turkish forces. The evidence shows that an understanding of physical geography contributed to
the success of Feisal and Lawrence’s Arab forces.

In \textit{Seven Pillars}, Lawrence labels his first aspect of irregular warfare as the algebraic
element of things. This element considers the “the known invariables, fixed conditions, space and
time, inorganic things like hills and climates and railways, with mankind in type-masses too great

\begin{thebibliography}{99}
\bibitem{175} Ibid., 203.
\bibitem{176} Lawrence, \textit{Revolt in the Desert}, 295.
\bibitem{177} Wavell, \textit{The Palestine Campaigns}, 228.
\bibitem{178} Lawrence, \textit{Revolt in the Desert}, 39.
\end{thebibliography}
for individual variety.” He then applies this conceptualization to the Arab objectives and
Turkish enemy in the Hejaz. Calculating that Turkish forces, even with airplanes, artillery, and
armored trains, would need six hundred thousand men and a fortified outpost every four square
miles to control the terrain of the Hejaz, he claims that “the Hejaz war was won and finished
with: won from the day [the Arabs] took Wejh.” Noting the consistent threat that Arab forces
posed to the railway, he describes the “garrison of Medina, [as] reduced to an inoffensive size …
sitting in trenches destroying their own power of movement by eating the transport they could no
longer feed.” Because of this lack of mobility, “out of every thousand square miles of Hejaz,
nine hundred and ninety-nine were now free.” Tied to a linear lifeline, the Turks did not have
the resources to overcome the friction within the surrounding terrain.

Lawrence understood the importance of the frictionless mobility afforded to the Arabs.
He proposed that they should exist as “an influence, an idea, a thing intangible, invulnerable,
without a front or a back, drifting about like a gas,” using depth against an enemy that lacked the
ability to separate itself from its logistical support and maneuver freely within the harsh
environment of the Hejaz. Finally posing that the Arabs would offer limited targets and almost
nothing material for the enemy to destroy, Lawrence warned that the Turks would only own what
they sat on, and soon find that “war upon rebellion was messy and slow, like eating soup with a
knife.”

In this general conceptualization of the how their Arab forces might capitalize upon
existing situational advantages, Faisal and Lawrence addressed the opportunities and constraints

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179 Lawrence, *Seven Pillars of Wisdom*, 192.
180 Ibid., 189, 192.
181 Ibid., 189.
182 Ibid.
183 Ibid., 192.
184 Ibid., 193.
posed by their physical environment. They understood that occupying and protecting their coastal bases was vital to their continued efforts. Occupying the Red Sea ports of Jeddah, Rabegh, Yenbo, Wejh, and Akaba placed Arab operational bases under the protection of the Royal Navy and allowed for the consistent resupply of money, weapons, and provisions. These bases enabled the Arab forces to execute their envisioned manner of irregular warfare. From such sanctuary, small Arab parties launched hit and run attacks against the railway and small Turkish outposts inland and to the north. And with full understanding of the harsh physical realities and spatial friction present in their homeland, these forays were constrained by the availability of water, the self-sufficiency and range of the individual bedouin fighter, tribal boundaries that offered or denied over-land passage, and available lines of maneuver leading onto, and off of, any potential objective.\textsuperscript{185} Basing themselves on the coast also physically separated them from Turkish strong-points along the railway and inland at Medina.

Full comprehension of both the opportunities and constraints posed by the physical environment is apparent within the decisions made by the leaders of the Arab Revolt. Their adaptation to that environment framed the methods used to obtain their operational objectives and helped establish the effectiveness of the Arab forces in the Hejaz through maneuver and irregular warfare. The capture of Akaba is a specific instance involving the adjustment of military operations due to an understanding of the physical terrain.

**Akaba**

Following the capture of Wejh and sustained operations against the Hejaz railway, Feisal and Lawrence developed a plan to capture the port city of Akaba. The strategically important port city was the topographical meeting point between the Sinai and the Hejaz. If captured it would not only provide both Arab and British regular forces with an important point of resupply, but any

\textsuperscript{185} Concept also discussed in Demarest, “19th Century Strategy to Insurgent Warfare,” 2.
such success could potentially raise the tribes of the northern Hejaz, Transjordan, and southern Syria to the Arab cause. The Turks understood Akaba’s military importance as well. But because of the potency of the Royal Navy, most of its defenses focused on thwarting a potential naval or amphibious attack. Its eastern side “was the unguarded side, the line of least resistance, the easiest” path for any group that could withstand the harsh overland trek needed to maintain the vital element of surprise.\textsuperscript{186} Without surprise, the Turks would simply reorient their defenses onto the overland approaches.

A select band of Arab forces including Lawrence and Auda Abu Tayi, struck out from Wejh in May 1917 on a “desert route to Akaba [that] was so long and so difficult that [they] could take neither guns nor machine guns, nor stores nor regular soldiers.”\textsuperscript{187} Feisal had already been in contact with some of the northern tribes, but the group had to overcome the serious constraints of the physical environment if they were to succeed or even survive. To both provide for themselves and maintain the element of overland surprise, the group swung to the northeast in a wide arc away from Wejh. Raids upon the Hejaz railway and newfound tribal cooperation provided the group with weapons, supplies, and the Turkish distraction needed for a successful march back to the southwest towards Akaba. (Reference sketches in Appendices D and E)

While on the final approach to the city, an unexpected Turkish battalion appeared along the overland approach at Aba el Lissan. Once again, the Arab forces (swollen in numbers from local tribal support) used the terrain to their advantage. For while “they [the Turks] slept on in the valley … we [the Arabs] crowned the hills in wide circle about them unobserved.”\textsuperscript{188} The Arab forces sniped at them from the hills for an entire day before routing the remaining Turks in a camel mounted advance. Continuing to the southwest after this success, the Arab advance met

\begin{flushright}
\textsuperscript{186} Lawrence, \textit{Seven Pillars of Wisdom}, 225.\textsuperscript{187} Ibid., 226.\textsuperscript{188} Ibid., 300.
\end{flushright}
little resistance. The force had maintained operational surprise, and the surrender of Akaba was accepted on 6 July 1917. “Unfortunately for [the Turks, they] had never imagined attack from the interior, and of all their great works not one trench or post faced inland.”189 Lawrence simplifies the entire two-month operation as “an extreme example of a turning movement, since it involved a desert journey of six hundred miles to capture a trench within gunfire of our ships.”190

The decisions made and actions taken by the Arab forces and their leaders demonstrated a keen understanding of their surrounding physical geography. This understanding helped develop their overall conceptualization of irregular warfare and its value to their operations. It also allowed them to use specific terrain at specific times to further their movement towards operational success.

**Understanding Human Geography**

> When I took a decision, or adopted an alternative, it was after studying every relevant — and many an irrelevant — factor. Geography, tribal structure, religion social customs, language, appetites, standards — all were at my finger ends.191
>
> — T.E. Lawrence Letter to Liddell Hart, June 1933

A comprehensive understanding of human geography also contributed to the military effectiveness demonstrated within the Arab Revolt. An in-depth application of this understanding allowed its leaders to capitalize upon the strengths and minimize the effect of the weaknesses posed by the human environment. In a similar fashion to the previously discussed relationship between his algebraic element and physical geography, the understanding of human geography becomes an evident foundation for Lawrence’s second and third elements of irregular war.

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189 Ibid., 310.

190 Ibid., 225.

Lawrence’s second element of war “plunged into the nature of the biological factor in command,” or bionomics.\textsuperscript{192} This element addressed the “sensitive and illogical” side of war that hinged upon the unknown effects of “humanity in battle.”\textsuperscript{193} Whereas leaders attempted to plan for this unknown element using operational estimates and a reserve force, it was the ability to deal with it when crisis or accident arose that demonstrated the true skill and value of a leader.

Additionally, because the fallible efforts of man introduced this “line of variability” or unknown into the execution of wartime plans, Lawrence felt that bionomics “was not bounded by mankind, [but] that it applied also to materials [because] in Turkey things were scare and precious, men less esteemed than equipment.”\textsuperscript{194} With this in mind, he postulated that the Arab aim should be “to destroy not the Turk’s army, but his minerals,” for the destruction of a Turkish bridge, rail, or shipment of supplies was more profitable to the Arabs than the death of a Turkish soldier.\textsuperscript{195} Turkish soldiers were easily replaced, but attacking their material and transport would limit their logistical reach and occupy them with static attempts at protecting their lifelines from Arab raiding parties. Lawrence held that such in-depth assaults would enable the Arabs to overcome any disadvantages in overall numbers and firepower, and be “superior at the critical point and moment of attack … for the decision of what was critical would always be” theirs.\textsuperscript{196}

This operational conception found its base, not only in the knowledge of Turkish capabilities and constraints, but also in a comprehensive understanding of the human aspects of the Arab fighters. Whereas “governments saw men only in mass … [the Arabs] being irregulars, were not formations, but individuals,” individuals that possessed their own cultural narrative and

\textsuperscript{192} Lawrence, Seven \textit{Pillars of Wisdom}, 193.
\textsuperscript{193} Ibid.
\textsuperscript{194} Ibid., 193–4.
\textsuperscript{195} Ibid., 194.
\textsuperscript{196} Ibid.
developed within their own spatial context. In this context, the death of an individual meant more than that of a faceless entity. Therefore, the Arabs could not afford casualties; materials would be easier to replace. Understanding this human value within the Arab ranks, Lawrence posed that their war would be a “war of detachment, … [containing] the enemy by the silent threat of a vast unknown desert,” and not disclosing themselves until they attacked.

After this biological factor provided a framework “most in line with the genius of [the] tribesman,” Lawrence postulated the need to build the psychological element “into an apt shape.” Fully understanding the value of human emotion, Lawrence meant this final element, also called diathetics, to address propaganda, the spirit of the crowd, and the morale of both sides. “It considered the capacity for mood of [the Arab fighters], their complexities and mutability, and the cultivation of whatever in them promised to profit” overall Arab intentions and objectives. Understanding the human and social systems of the region, Lawrence held that communication and word of mouth would be vital to arranging the minds and psyche of all friendly, enemy, and neutral parties involved at the local levels and higher. He stressed that “as we had seldom to concern ourselves with what our men did, but always with what they thought, the diathetic for us would be more than half the command.” Lawrence’s conceptualization of these final two elements demonstrates: an in-depth understanding of the Arab people, the factors influencing their human geography, and how to best sustain their efforts and commitment to operational

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197 Ibid.
198 Ibid.
199 Ibid.
200 Ibid., 195.
201 Ibid.
203 Lawrence, Seven Pillars of Wisdom, 195.
objectives. However, the complexity of the population and circumstances surrounding the Revolt warrants more discussion and evidence of understanding.

As operational commander and advisor, Feisal and Lawrence were in the fortunate position of understanding the motivations and influences in both western and oriental societies of the time. Lawrence was widely read, studied and traveled the Middle East while at Oxford, and had spent his post-graduate years learning the Arab ways during archeological digs to the north at Carchemish and cartographic surveys in the Sinai. Raised in Constantinople, Feisal received a modern education and insight into western thought before returning to the Hejaz with his brothers for immersion into the ways of their native homeland. Such circumstances and experience allowed them to consider, understand, and act upon the elements of human geography that would undoubtedly affect the campaign. Throughout planning and execution, they both demonstrated an uncanny ability to understand various social, political, and economic factors that related the humanity of the Hejaz to its physical landscape.

Arab society in the Hejaz was full of contradictions and inconsistencies. The Arabic language and the Muslim religion bound its people to common lineages, yet there had been no development of the western-style state system and tribal feuds were constant. Their culture demanded a host to demonstrate hospitality and protection to a guest, yet they were suspicious of, and adverse to any outsiders. Such intricacy made handling Hejaz Arabs “an art, not a science, with constant exceptions and no obvious rules.”

Evidence from the beginning of the campaign highlights the understanding that this had to be an Arab campaign fought by Arabs and not by any great mass of foreign soldiers. British men and equipment would play a larger role in the Palestinian and Syrian stages of the campaign,

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205 Lawrence, Seven Pillars of Wisdom, 97.
but the origins and development of the early revolt had to be Arab. Any great outside force would have simply become the new occupier, attempting to take that which the Turks had originally taken. Hence, when discussing the possible use of a British brigade from Egypt to protect Rabegh during the early days of the campaign, Lawrence and others suggested to the British command that sending “Christians to defend the people of the Holy City [Mecca], against their enemies” would not be welcomed, and “would misrepresent [British] motives and action.” Therefore, Muslim volunteers from Mesopotamia and Syria and converted prisoners from Egypt and India trained as a defense force instead. Advisors, Muslim troops, supplies, weapons, and naval, artillery, and air support were all welcomed from the outside throughout the campaign, but the Muslim Arab needed to fight if the campaign was to evolve as it did.

The leadership of the revolt understood that the type of fighter needed within the context portrayed by Lawrence’s three elements was the self-sufficient Arab bedouin. However, it is important to remark that there was a significant societal distinction within the Hejaz between the tribal bedouin and the sedentary city dweller. The collective responsibility and group-brotherhood of the desert, contrasted drastically with the isolation and competitive living of the crowded districts. In the cities, “the mass of citizens were foreigners – Egyptians, Indians, Javanese, Africans, and others – quite unable to sympathize with the Arab aspirations” voiced by the Sherif and the bedouin. The city dweller prospered from coastal foreign trade, the pilgrimage economy and administrative control, while the bedouin relied on their migrating herds, loot, and the strength of the tribal structure. In a description, Lawrence posed that outsiders often misunderstood the oddness of the bedouin, and yet he admired the fact that “their strength was the strength of men geographically beyond temptation: [for] the poverty of Arabia made them simple,

207 Lawrence, *Seven Pillars of Wisdom*, 70, 110–11.
208 Ibid.
209 Ibid., 42.
continent, [and] enduring." Therefore, with full comprehension of their military value as well as their social, political, and economic realities, Sherif Hussein, Feisal, and Lawrence constructed a campaign framework based upon the strengths of the bedouin.

Politically, Sherif Hussein crafted a cognitive conceptualization of Arab nationalism at the start of the rebellion that was quite distinct from that which was secretly festering in Damascus. Whereas urban centers to the north and east looked eagerly forward to some form of Arab confederation, he realized that the bedouin concept of nationalism must be nested within their geographically-based customs. In this regard, he understood the importance of the clan and tribe within any collective effort to overthrown foreign occupiers. Lawrence captured this by noting,

The problem of foreign theorists – ‘Is Damascus to rule the Hejaz, or can the Hejaz rule Damascus?’ did not trouble them at all, for they would not have it set. The Semites’ [Arabs’] idea of nationality was the independence of clans and villages, and their ideal of national union was episodic combined resistance to an intruder. Constructive policies, an organized state, an extended empire, were not so much beyond their site as hateful in it. They were fighting to get rid of Empire, not to win it. 212

Hence, the key leaders of the Hejaz revolt did not preach about the possibilities of an administrative future controlled by other Arabs, but stressed the overthrow of the current regime. In order to help foster this sentiment, the Sherif “sanctioned the restoration of the old tribal order” in lieu of the existing Turkish civil code. 213

Promoting the role of tribes and clans did not remove the fact that harnessing their individual strength into a collective fighting force would prove to be a difficult task. This entailed consistent incentivizing and constant management in addition to the liberation homily described above. In conjunction with British gold and provisions, Sherif Hussein initially used his own

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210 Ibid., 68.
211 Lawrence, Revolt in the Desert, 72–3.
212 Lawrence, Seven Pillars of Wisdom, 100.
213 Ibid., 68.
reputation to rally the tribes to the battlefield and his four sons to manage them within it. After the first months of the Revolt however, this recruitment technique and command arrangement needed further development. Constant tribal negotiation and strong leadership was needed to manage the diversity within the Arab ranks and to guide the course of the campaign. Lawrence understood early that it would be hard “for a stranger to influence another people's national movement, and doubly hard for a Christian and a sedentary person to sway Moslem nomads,” therefore the Arab campaign needed a native leader that could manage, execute, and ignite “a flame of enthusiasm, that would set the desert on fire.”²¹⁴ He noted in October 1917 that “the Sherif’s rebellion [had been] unsatisfactory for the last few months: and [that his] suspicion was that its lack was leadership.”²¹⁵ Lawrence labeled “Abdulla too clever, Ali too clean, [and the youngest] Zeid too cool,” but found the Sherif’s third son, Feisal, to be the answer to this leadership dilemma.²¹⁶ “His [Feisal’s] training in Abdul Hamid’s entourage had made him past-master in diplomacy. His military service with the Turks had given him a working knowledge of tactics. His life in Constantinople and in the Turkish parliament had made him familiar with European questions and manners. He was a careful judge of man.”²¹⁷

With Feisal identified as the leader or “prophet who … who would give cogent form to the idea behind the activity of the Arab revolt,” Lawrence gained his own legitimacy within the Arab ranks by famously donning their dress and employing “Arab habits entirely.”²¹⁸ In fact, his contribution to the Arab Bulletin of 20 August 1917 documented a full framework of advisory considerations when working in the Hejaz. Hence, with their understanding of the human terrain, Feisal and Lawrence set about the work of planning, managing, and executing the campaign.

²¹⁴ Lawrence, Revolt in the Desert, 93; Lawrence, Seven Pillars of Wisdom, 67.
²¹⁵ Lawrence, Seven Pillars of Wisdom, 67.
²¹⁶ Ibid., 64.
²¹⁷ Ibid., 97.
²¹⁸ Lawrence, Seven Pillars of Wisdom, 97,126; "The 27 Articles of T.E. Lawrence," 11.
Historical customs, the Sherif’s support for the tribal system, and the reliance on the bedouin fighter described above, made tribal negotiation one of the most delicate and trying tasks of the campaign. Never to be undervalued, skilled negotiation was vital for rallying the Arab fighting force and gaining permission to operate within different tribal territories. Feisal carried with him the influence of his family lineage and the power of British gold and supplies. However, diplomacy involving the territorial and tribal leadership served as a foundation upon which to maintain and move an army in the Hejaz. Lawrence wrote, “Men have looked upon the desert as barren land, the free holding of whoever chose, but in fact every hill and valley in it had a man who was its acknowledged owner and would quickly assert the right of his family or clan to it, against aggression. Even the wells and trees had their masters.”

From the earliest days of the campaign, the understanding of these geographic realities litters the documentation regarding the leadership and operations of the Arab Revolt. The march from Wejh in late 1917 contained elements of the Harb, Billi, Ateiba, Ageyl, and Juheina tribes, possessing what Feisal regarded as the “many-tribed character” through which he hoped to “send a rumor through the length and breadth of Western Arabia.” Not free from turbulent instances, early successes at negotiation and collective effort fostered optimism within the heterogeneous Arab ranks and opened the maneuver space necessary to secure Wejh and continue operations against the Hejaz railway. The coastal movement to Wejh also opened the door to begin negotiation with the tribes further north in order that the “revolt might be extended, and the railway threatened from Tebuk (our [the Arab] present limit of influence) northward as far as Maan.” The effort to gain Akaba also relied heavily upon effective management of tribal lands and cooperation. The planned movements to the north and west of Wejh required the permission

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219 Lawrence, *Seven Pillars of Wisdom*, 83.
220 Ibid., 137.
221 Lawrence, *Revolt in the Desert*, 69.
and support of the Howeitat and their leader, Auda Abu Tayi. Therefore, Auda’s arrival and pledging of his forces at Feisal’s camp opened the northern lands east and west of the railway, and allowed for safe passage during the planned operations around Maan and Akaba.\textsuperscript{222}

A continual effort throughout the campaign, the negotiations proved to be vital prerequisites for any planned operational move north. As late as September 1918, Lawrence mentions the military operations as often being easier than the diplomatic efforts. And while praising Feisal’s skill at the task, Liddell Hart describes the ladder of agreements by which the Arab force would reach Deraa and Damascus as being “constructed of a series of tribal rungs, each fitted carefully into its place, and the whole fitted together.”\textsuperscript{223} Reflecting on the entire campaign, Lawrence wrote, “during two years Feisal so laboured daily, putting together and arranging in their natural order the innumerable tiny pieces which made up Arabian society, and combining them into his one design of war against the Turks.”\textsuperscript{224}

In addition, Feisal and the Arab leaders understood the value of the intelligence and popular support that negotiation provided. At Deraa, Lawrence noted that, “Visitors were our eyes, and had to be welcomed. My business was to see everyone with news, and let him talk himself out to me, and afterwards arranging and combining the truth of these tales into a complete picture in my mind. Complete, because it gave me certainty of judgment.”\textsuperscript{225} Not only a source of intelligence, fighters, and sanctioned passage, the friendly population provided substantial resources. The most important of which were access to food and water. Vital during operations in the Hejaz, a supportive population also helped both British and Arab movements all along the final routes to Damascus. “Feisal’s movement made the enemy country friendly to the allies as they advanced, enabling convoys to go up without escort, (and) towns to be administered without

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\begin{itemize}
\item \textsuperscript{222} Ibid., 70.
\item \textsuperscript{223} Hart, \textit{In Arabia and After}, 315.
\item \textsuperscript{224} Lawrence, \textit{Revolt in the Desert}, 71–2.
\end{itemize}
garrison.” 226 In sharp contrast, the Turkish forces disregarded the population and in fact often ravaged it. Massacres around Awali in 1916, Akaba in 1917, and Tafas in 1918 are just three examples of how Turkish abuse of the population placed them within “ubiquitously hostile country.” 227

Tribal negotiations and force availability throughout the evolution of the Revolt often involved economic incentives as well. Because the bedouin tended to live on his herds, small trade, and “what he could extract from the stranger in his roads, or in his valleys,” the Sherif and the British realized that both fighter and family looked for economic gain. 228 Therefore, as the Arab forces grew, the Sherif “armed them freely, paid many of them, fed their families while they were away, and hired their camel transport to maintain the armies.” 229 The steady flow of British gold, no doubt provided for both these financial distributions and any funds needed to smooth tribal agreements. 230 However, booty resulting from raids and battlefield victories was an acceptable and expected gain from success as well. Understanding that this practice was deeply entrenched within the tribal culture, both Feisal and Lawrence accepted this practice.

Consideration of these human factors allowed the leaders of the Arab Revolt to plan and execute operations that suited their strengths and avoided their weaknesses. Maneuvering with speed, mobility, and self-sufficiency when needed, the bedouin irregular proved valuable as an individual fighter throughout the campaign. He was the opposite of the regular, disciplined soldier who found support in the strength of his formation and his lines of logistics. The bedouin irregular knew the constraints and opportunities posed by his environment, and often freely

225 Ibid., 275–6.
226 Ibid., 311.
227 Lawrence, Seven Pillars of Wisdom, 93, 134, 305, 630.
228 Ibid., 68.
229 Ibid.
moved between the Arab ranks and the demands of his tribal district. Of “those that set out from Wejh, it is said that less than one hundred were present at the entry to Damascus,” and yet more than one hundred thousand different Arabs may have taken part in the Revolt at some point.\textsuperscript{231} Despite these ever-changing heterogeneous ranks, understanding and managing the elements of human geography allowed the leaders of the Arab forces to use their fighters in a variety of ways. The Arabs found success as small raiding parties, as larger maneuverable forces, and ultimately as an integrated element of Allenby’s 1918 plans in Palestine and Syria.

\textbf{Case Study Conclusion}

The Arab leadership’s comprehensive geographic understanding contributed to their success. The evidence suggests that their appreciation and regard for the influential elements of the human population and the physical terrain aided their ability to obtain operational objectives. The campaign’s design, resourcing, and execution demonstrated a thorough understanding of the effects of spatial friction on Turkish and Arab operations, the linear freedom enjoyed by Arab forces, as well as the linear restrictions facing the Turks.

\textsuperscript{231} Ibid., 19.
Section 6: Comparison, Considerations, and Reflection

### Summary of Case Study Findings

<table>
<thead>
<tr>
<th>Campaign</th>
<th>Effective Understanding of Physical Geography</th>
<th>Effective Understanding of Human Geography</th>
<th>Operational Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesopotamia 1914–1916</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Arab Revolt 1916–1918</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As an element of leadership, an appreciation for all aspects of geography contributed to operational success in the Middle East during WWI by building an understanding of both the physical and human terrain and their effects on military operations. Using the definitions provided in the methodology section, the case studies demonstrated that understanding the opportunities and constraints posed by both the physical and human geography affected the ability to obtain operational objectives in each campaign (Figure 1). This project placed more emphasis on limiting temporal and spatial variance than the isolation of conflict type. Yet elements of both conventional and guerrilla warfare were present in each campaign.

This project does not claim that comprehensive geographic understanding is the sole determining factor for operational success. Nor does it claim that it was only determining factor within the presented case studies. All elements of combat power contribute to operational success. However, it is the task of leadership to employ available combat power within a specific geographic context. Clausewitz and Jomini espoused the permanent, scalable, frictional, and linear relationship between geography and the conduct of war, as well as leadership’s role in addressing its effects. In this regard, understanding the various elements and aspects of geography enables leadership to more effectively measure the capabilities of combat forces based upon the
surrounding operational environment. Ultimately, the project does support a strong claim for the 
importance of comprehensive geographic understanding as a contributing factor to operational 
success within the WWI Middle East. In fact, former Royal Geographic Society President 
Douglas Freshfield noted in a November 1916 address in London that, “It is an extravagant hope 
that a lesson has been learned, and that in the future the uses of geography both in war and 
politics may be fully recognized at Westminster and at Whitehall.”232

This project’s historical research also alludes to the fact that conventional forces with 
ample resources can overcome physical obstacles easier than the often-overlooked challenges 
involved in human geography. In this regard, and despite assets to deal with the difficulties of the 
physical terrain, the challenges that the Army currently faces within the human environments of 
Iraq and Afghanistan are not new. In fact, present-day deployment and maneuver capabilities 
reflect a long history of conventional force-projection that has involved the development of 
technology to overcome the physical limits originally placed on armies by the speed of the march, 
the range of the horse, and variations in the physical environment. The development of rail, naval, 
and air capabilities increased the speed and physical distances available for combat power 
projection and operational reach. However, both antagonists in the WWI Middle East learned that 
this physical capability does not remove the need to address the human landscape. This is 
especially true when the population generates the threat, or provides the anonymity vital to an 
insurgent. The Arab Revolt case documented the ineffective control provided by the Hejaz 
Railway and the Turkish garrison at Medina. The British learned this lesson on more than one 
occasion as well. The second British campaign in Mesopotamia succeeded upon the strength of 
newly constructed port facilities, rail lines, marching roads, river channels, and an organized

water transportation system. This infrastructure helped the British overcome the physical constraints of the theater. However, the mishandling of the human elements progressed until revolt erupted in 1920. Likewise, Sir Archibald Murray’s intricate rail and water supply line allowed his, and later General Allenby’s forces to overcome the physical constraints of the Sinai and project forces into Palestine and Syria. However, the intricacies of Ottoman, British, Jewish, and Palestinian human geography continue to make the region extremely volatile today.

Similarly, the United States retains the ability to project forces over great physical distances and landscapes. Cargo ships, C-17 aircraft, helicopters, MRAPs, and up-armored HUMMMWV’s are only some of the current assets used to overcome distance and operate within the geographic settings of Iraq and Afghanistan. Yet, the elements of human geography and the relationship between a people and their landscape still hamper operations.

Section 7: Current Conceptualization and Future Possibilities

This project espouses comprehensive geography as both an analytical framework and an operational tool. The need for such support is relevant because the Army must maintain, institutionalize, and develop the importance now given to understanding the characteristics and relationships that exist within various physical and human landscapes. Recent doctrinal expansion and resource allocations demonstrate the Army’s current regard for the elements of comprehensive geography, but the Army must increase geographical integration through its personnel allocations and planning processes.

Although not often referred to as geography, the Army realizes the need to understand the effects of both the physical and human terrain. FM 3-0 Operations, FM 3-24 Counterinsurgency and FM 3-24.2 Tactics in Counterinsurgency describe the operational environment as a

233 Kearsey, Mesopotamia Campaign, 71.
composite of systems, forces, influences, and characteristics (including the physical and human) that effect decisions and capabilities. Acronyms including: PMESII-PT (political, military, economic, social, information, infrastructure, physical environment, time); METT-TC (mission, enemy, terrain, time, type, civil considerations); and ASCOPE (areas, structures, capabilities, organizations, people, events) capture environmental characteristics needed to promote holistic understanding. Spatial awareness stands at the heart of a commander’s ability understand, visualize, describe, and direct the efforts of his forces within a designated space. Maps and terrain analysis are its traditional tools. Yet, UAVs (unmanned aerial vehicles), overhead digital imagery, and GIS (geographic information systems) all represent technologies developed to promote better awareness of the physical environment. In regard to the human element, efforts now focus on expanding cultural awareness and human intelligence (HUMINT) collection capabilities. The integration of civilian and military personnel within the Human Terrain System attempts “to provide commanders with a comprehensive cultural information research system … (that fills) the cultural knowledge void” hampering recent Army operations. Despite this doctrinal emphasis and resource allocation, Major General Michael Flynn, Deputy Chief of Staff for Intelligence in Afghanistan, wrote in January 2010 that in many ways the Army “still finds itself unable to answer fundamental questions about the environment” in which it operates, the enemy it targets, and the people it tries to protect and persuade.

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236 *FM 3-24 Counterinsurgency*, 3-3; *FM 3-0 Operations*, 1-1; *FM 3-24.2 Tactics in Counterinsurgency*, 1-1.
In order to fill the capability gap described by MG Flynn, the Army must look for creative ways to develop its personnel and planning processes in order to integrate geographic competencies and gain understanding across the levels of command. The realization of comprehensive geographic understanding in today’s Army suffers under the weight of two dilemmas. The first is that the responsibility for its components is traditionally divided between the intelligence, engineer, and other smaller branch communities. On a brigade staff, Intelligence (S2), Civil Affairs (CA), and Information Operations (IO) personnel, as well as the new Human Terrain Teams (HTTs) handle the aspects of human geography. Engineers and any attached topographic specialists address the physical terrain. The second dilemma is that staffs at the battalion level and above habitually employ the often-segmented problem solving process known as the military decision making process (MDMP). To assign missions to their subordinate units, commanders and staffs traditionally produce operations orders (OPORDs) based on their collective participation in the MDMP process. The second step of MDMP is mission analysis. The intelligence preparation of the battlefield (IPB) portion of mission analysis should, by definition, capture the various aspects needed for comprehensive geographic understanding. However, time constraints, the distribution of staff analysis, the delegation of staff responsibility, and the requirements of ultimately producing OPORDS often dilutes the intended comprehensive nature of IPB and mission analysis. Traditionally, intelligence staffs evaluate threats, civil affairs personnel consider civil-military relations, and engineer elements look at terrain. Within this process, only the best staffs capture the interactions and relationships that exist between the human and physical aspects of a landscape. Commanders always retain the


flexible ability to assign personnel, planning groups, and fusion cells as they deem appropriate. Nevertheless, rethinking personnel organization and planning procedures would open discussion on new ways of addressing the complex systems and comprehensive geographies that mark the current operating environment. According to Martin Van Creveld, such reconsideration would promote the long and continuous development process that marks the evolution of the organizations, procedures, and technologies used to command.242

Recommendations for addressing these issues include:

1. Creating a geographic staff position at the division, brigade and battalion levels. This position could coordinate or comprehensively consider the specialty work given to the S2, CA, IO, HTT, and engineer staff elements. Individuals with education, training, or experience regarding regional, cultural, or GIS / imagery subjects are ideal candidates.

2. Expanding or adjusting the Foreign Area Officer (FAO) program. After a three-year education and training program, FAOs are field grade regional experts that serve at the strategic level. The current force pool of FAOs is too small to reach down to the tactical level and the education and training is long and expensive. A restructuring or expansion of this system might base itself upon the development of younger officers through undergraduate degree specialties and incentives, active duty service obligations, or branch-detail programs.243

3. Implementing and embracing Design as a process to gain comprehensive geographic understanding. Conducted both prior to planning or when conditions dictate the need, Design represents an iterative process used when “there is something inexplicable in the operational


243 Major Ben Connable, “All Our Eggs in One Basket : How the Human Terrain System is Undermining Sustainable Military Cultural Competence,” *Military Review* (March-April 2009): 57-64. The argument for FAO expansion is not a new one. Major Connable argues OIF/OEF lessons were often hard “because a focus in cultural training and education has yet to be sustained between conflicts.” He concludes that “a properly trained, manned, and supported team consisting of a FAO, a CA unit, a PSYOP unit should be able to provide the kind of cultural expertise that staffs found lacking in 2003 and 2004.”
environment that the commander needs to better understand.” Unlike MDMP, Design’s explanatory power results from a design team’s holistic development of environmental, problem, and solution frames. This contrasts with the traditional Army Problem Solving Process that starts by attempting to identify the problem. Reflecting the importance of gaining a comprehensive understanding of relevant geographic factors, the environmental frame generates a shared understanding of the physical and human systems within an operational environment at the start of the design process. This understanding then permeates the remainder of the design and any follow-on planning directives.

Section 8: Conclusion

This project’s investigation into the relationship between comprehensive geographic understanding and operational results within the WWI Middle East demonstrates the importance of both the physical and human terrain. Clausewitz and Jomini task leadership with understanding the opportunities and constraints posed by the environment when applying the elements of combat power. The 1914–16 British Mesopotamian Campaign and the Arab Revolt provide examples of underestimating geographical effects and utilizing geographic characteristics to their full exploitation. Today’s Army must employ both historical insight and continuing lessons from Iraq and Afghanistan in order to rethink the way in which personnel and planning structures address geographic understanding. In WWI Britain, many “believed the nation’s store of geographical knowledge and expertise had been woefully underused.” Yet even today, armed forces continually need time-consuming and costly transition periods in order to become familiar with new topographies and social systems. Waiting until after an overseas operation or conflict

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245 Ibid., 110.

246 Hefferan, “Geography, cartography, and military intelligence,” 520.

has begun to gain comprehensive geographic understanding is shortsighted and irresponsible. In his June 2009 *Foreign Policy* article “The Revenge of Geography,” Robert Kaplan discusses a new realism based on the unbending forces of culture, tradition, history, and physical geography. He contends that globalization is “weakening many states, [and] exposing a Hobbesian world of small fractious regions,” in which the forces of human and physical geography are reasserting themselves as sources of conflict.248 These fractious regions and unstable territories are some of the places the Army may find itself executing future missions. As the Army becomes increasingly familiar with Middle Eastern environments, it must embrace Kaplan’s realism and not neglect organizational and procedural evolutions that will allow it to better understand and more effectively engage in other regions as well.

Appendix A – Mesopotamian River Corridors

Points of Reference:
1 – Basra
2 – Ahwaz
3 – Nasiriya
4 – Amara
5 – Kut

Appendix B – Tigris River Sketch

Reference points added by author.
This illustration depicts the Tigris River corridor along the 40 miles from Sheikh Saad (point 1 at bottom of illustration) to Kut (point 2 at the top of illustration). It shows the limited terrain available for troop movement, the surrounding marshes, and the fluctuating river path. The sketch was not draw to scale.

Appendix C – Entrenched Camp at Kut

Appendix D – Arab Revolt (Route to Akaba)

Malcolm Brown, *Lawrence of Arabia - the life, the legend* (New York: Thames & Hudson), 81.

The map displays the overland route taken by Lawrence and his party from Wejh to Akaba. This move gained the port city without subjecting an amphibious attack to the city’s formidable coastal defenses. Lawrence drew this map and the one in Appendix K in a 1920 letter to Leonard Gotch, a former map officer at Cairo who wanted to lecture about Lawrence’s exploits. The writing on the side of the map reads, “Solid red line is our way from Akaba to Wejh; undertaken to enable us to come into it from the E. It was not possible to go at any cost: we could not capture Akaba chiefly except by first capturing Aba el Lissan, the head of its pass to the plateau. The dotted lines represent a private journey of my own, for intelligence purposes. The force went along the solid line.”
Appendix E – Arab Revolt (Approach to Akaba)


Reference caption on map in Appendix J. This sketch by Lawrence depicts the final stage of movement to Akaba. Note this author’s inserted oval that encircles Aba el Lissan, and note Lawrence’s use of relief lines to represent changes in elevation along the route.
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