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The Power of Petroleum: How Petroleum Contributed to the Outcome of World War I

On November 11th 1918, the Armistice was signed, ending World War I. After four years of fighting, the German front surrendered, realising they were outmatched and unable to balance the war efforts and protect its civilians due to a dwindling economy. At the Inter-Allied Petroleum Conference in November 1918, Lord Curzon stated that "The allies floated to victory on a wave of oil",¹ arguing that the Entente Power's victory was due to the contribution of oil in the war effort. I will investigate the role of petroleum during the great war and argue that the Central Power's comparative lack of oil and the Entente's vast supplies is what contributed to the Entente's victory.

The Great War marked the beginning of a new kind of warfare that heavily relied on the availability and utilisation of petroleum products. Firstly, in the early stages of the war, manoeuvrability was of the utmost importance. The Schlieffen Plan and the Race to the Sea depended on who could manoeuvre and transport their armies the fastest. The Battle of the Marne that foiled the German's plan was partly due to the French's ability to quickly transport so many soldiers to the Marne by utilising all available motor vehicles in Paris, which required fuel from petroleum. Likewise, the Race to the Sea was also reliant on who could transport their troops the fastest in an effort to outflank each other. During this Race, the armies would entrench

¹ Brian Black, "Making Oil Essential: Emerging Patterns of Petroleum Culture in the United States during the Era of the Great War," In *Landscapes of The First World War*, Ed. Selena Daly, Martina Salvante, Vanda Wilcox, (Springer International Publishing, 2018), 30.

themselves in an effort to maintain their position, which created a network of trench systems that would stretch across the western front. The trench systems meant that the objective of each army was now to push their enemy back and out of their trench; however, the war quickly came to a stalemate due to the two powers being evenly matched. The muddy conditions of the trenches and no-mans-land meant that artillery and transportation provided by horses were obsolete and useless, and motorised artillery, powered by oil, would have to be utilised.² Old tactics rooted in Napoleonic warfare proved to be no match for the trench systems and the new killing machinery. It was abundantly clear that the Great War would be a war of attrition, and if one were to be successful, they would have to develop new tactics and technology that would outmatch their opponent; this was a war "fought between men and machines, and these machines were powered by oil".³

Before the outbreak of the war, a decision was made, due to the campaigning of Churchill, to power the British Navy through oil, the use of which "made it possible in every type of vessel to have more gun-power and more speed for less size or less cost".⁴ The British Navy, now fed by oil, would provide vital support to the war effort, transporting supplies and soldiers, aiding in campaigns such as the Gallipoli Campaign, and forming the British Blockade, which was a significant contributor to the breakdown of the Central Powers. Similarly, the Germans would also utilise petroleum for their diesel-powered submarines that fought against

² "Horseless Artillery," *British Pathé*, 00:38, 1914, <https://www.britishpathe.com/video/horseless-artillery/query/horseless+artillery>

³ Black, "Making Oil Essential," 18.

⁴ Black, "Making Oil Essential," 22.

the British Navy and their Blockade.⁵ Furthermore, both sides saw the usage of aeroplanes.

Fuelled by oil, these planes were employed in a multitude of ways, aiding in reconnaissance and tactical support, and also fighting and bombing from the skies.⁶ ⁷Petroleum was also needed for the production of TNT,⁸ powering armoured vehicles such as tanks,⁹ transporting soldiers and supplies, and for pesticides and fertilisers needed to increase agricultural production.¹⁰ Petroleum was a highly advantageous product that heavily aided in the war effort, and in an increasingly mechanised war, "wartime petroleum supplies became a critical strategic military issue" that "seeped into the war aims of [every] contributing nation".¹¹ ¹²

The Entente Powers were at a notable advantage, having significantly larger access to petroleum in comparison to the Central Powers, whose "acute shortage of oil [would become] a serious hindrance".¹³ Germany was heavily dependent on Romanian oilfields, and Austria-

⁵ Black, "Making Oil Essential," 28.

⁶ Max Hastings, "'Inventions of the Devil': The Planes of the Great War Terrified Soldiers and Civilians on the Ground and Changed Combat Forever," *MHQ : The Quarterly Journal of Military History* 26, no. 1 (2013).

⁷ "French Aeroplanes Take Off For Bombing Raid 1917," *British Pathé*, 00:13, May 29, 1917, <https://www.britishpathe.com/video/VLVA5JKLHT93MECHWNU3RW4XYVU8-FRENCH-AEROPLANES-TAKE-OFF-FOR-BOMBING-RAID/query/french+planes+great+war>.

⁸ David S. Painter, "Oil and the American Century," *The Journal of American History* (Bloomington, Ind.) 99, no. 1 (2012): 25.

⁹ Black, "Making Oil Essential," 27.

¹⁰ Painter, "Oil and the American Century," 25.

¹¹ Black, "Making Oil Essential," 28.

¹² Timothy C. Winegard and Sir Hew Strachan, *The First World Oil War*, (Toronto: University of Toronto Press, 2016), 93.

¹³ Winegard, *The First World Oil War*, 93.

Hungary could meet a small portion of the Central Power's petroleum requirements with their Galician oilfields.¹⁴ ¹⁵However, the Central Powers access to this oil would be heavily impacted by Entente sabotage. When Romania finally joined the war in 1916, they would lend their support to the Entente; however, this did not stop "German troops [advancing] on the oilfields and stored reserves".¹⁶ In response to this German takeover, Britain destroyed "the Romanian industry so that it could be of no assistance to their opponent", bombing the entirety of the industry by the end of 1916.¹⁷ It would take a few years for Germany to recover the industry. By 1918 the Romanian oilfields produced 80% of what they had initially produced.¹⁸ ¹⁹ Similar instances occurred in the Galician oilfields, where Russia destroyed the industry like Romania.²⁰ The minimal access to oil that the Central Powers possessed before the war became a more serious issue as the war went on due to the campaigns by the Entente to sabotage oil production.

The Entente Powers had significantly more access to the world's oil, placing them at more of an advantage in the war. At the beginning of the war, Russia was able to provide copious amounts of oil due to their access to the Baku oilfields,²¹ though they would lose access to these

¹⁴ Black, "Making Oil Essential," 29.

¹⁵ Winegard, *The First World Oil War*, 95

¹⁶ Black, "Making Oil Essential," 29.

¹⁷ Black, "Making Oil Essential," 29.

¹⁸ Black, "Making Oil Essential," 29.

¹⁹ Winegard, *The First World Oil War*, 93-94.

²⁰ Winegard, *The First World Oil War*, 95.

²¹ Winegard, *The First World Oil War*, 41.

oilfields after the Russian revolution in 1917.²² The British government, which needed oil to supply their Navy, had purchased a majority stake (51%) in the Anglo-Persian oil company before the outbreak of war and aided in their effort to gain access to oilfields in Mesopotamia.²³ The entrance of the US into the war would also pose a great advantage to the Entente; the American oil industry was huge, and "over the course of the war the US supplied more than 80% of allied oil requirements".²⁴ It is evident that the Entente Powers were at an advantage compared to the Central Powers, having substantially larger oil reserves in a war that was heavily dependent on oil.

The protection of oil interests and attempts to acquiesce oil would impact the war effort, diverting soldiers away from the trenches to participate in the campaigns over oil; this was far more of a burden for Germany, who had fewer bodies to call upon in comparison to the British who could call on men from their significantly larger empire. After the Russian revolution in 1917, oilfields at Baku became an object of desire. Unguarded, both Germany and Turkey rapidly advanced to acquire the oilfields.²⁵ British forces were compelled to come to the aid of Baku in 1918 in an expedition that "served the purpose of the keeping oil wells out of reach of Central Powers" and prevent them from being utilised in the war.^{26 27} Similarly, war over oil was

²² Black, "Making Oil Essential" 29.

²³ Anand Toprani, *Oil and the Great Powers: Britain and Germany, 1914 to 1945*, (Oxford: Oxford University Press, 2019), 26.

²⁴ Painter, "Oil and the American Century," 25.

²⁵ Black, "Making Oil Essential," 29.

²⁶ Winegard, *The First World Oil War*, 40.

²⁷ Black, "Making Oil Essential," 30.

played out in Mesopotamia. The Anglo-Persian oil company had been endeavouring to acquire oil found in Mesopotamia, competing against the Turkish Petroleum Company, which the Deutsche bank had been fighting to regain the concession it once had. Therefore, the British saw acquiring Mesopotamian oil as highly important not only for their supplies but also to ensure the Germans and the Ottomans did not get access;²⁸ this sparked the Mesopotamia campaign as the control of oil interests became "a first-class British war aim".²⁹ The campaign, carried out by mainly British imperial forces, sought to protect British oil supplies in Mesopotamia, capture important oil sights, such as Basra, prevent the Ottomans from gaining access to oil, and sabotage the building of the Berlin-Baghdad railway, which would carry oil to Germany when completed.^{30 31 32} Although not entirely successful, the campaign did aid in keeping the Central Powers away from oil that would help the war effort.

One of the noteworthy contributors to the fall of Germany was its inability to maintain a balance between the home front and the war front. Civil unrest back in Germany and crushing morale in the trenches would be a major motivator in Berlin's decision to withdraw from the war as people lost faith in their government. The British Blockade would prove successful in its

²⁸ Topriani, *Oil and The Great Powers*, 27-28.

²⁹ Topriani, *Oil and The Great Powers*, 40.

³⁰ Kaushik Roy, "From Defeat to Victory: Logistics of the Campaign in Mesopotamia, 1914-1918," *First World War Studies* 1, no. 1 (2010): 35-55.

³¹ P. T. Crowley, "Operational Lessons of the Mesopotamia Campaign, 1914-18," *Defence Studies* 4, no. 3 (2004): 335-360.

³² zy ksel Murat, *The Berlin-Baghdad Railway and the Ottoman Empire: Industrialization, Imperial Germany and the Middle East*. Vol. 47; (London: I.B. Tauris & Co. Ltd, 2016).

mission to destroy morale.³³ The Blockade, carried out by Britain's petroleum-powered Navy, "limited all trade, imports and exports" in Germany, causing economic strain and limiting its access to vital supplies.³⁴ As a result of the Blockade, there was a tremendous food shortage in Germany and the majority of what little food they did have went to the war effort, leaving civilians at the home front starving and angry at their government, calling for them to end the war.³⁵ Much of the issue was that supplies such as oil could not be accessed and were needed not only for the transportation of food but also for its cultivation and production. Germany was reliant on foreign oil supplies, and by 1916, "the allied naval blockade had starved Germany of [these] supplies" by harassing oil freighters destined for Germany.³⁶ With little oil to use for the war and the limited access also affecting the supplies of food to civilians and soldiers, Germany was left in a precarious position and was unable to sustain its place in the war.

It is clear that petroleum had a momentous impact on the war, new war machinery and transportation was heavily dependent on one's access to oil, and those who had the fastest and finest machinery stood the best chance of winning. Likewise, the access to oil was so important that it made oilfields another site of war; the desire for petroleum shaped oilfields into battlefields, upon which many soldiers fought and died. Furthermore, in the modern world, oil was also vital for the production of food; it was utilised in fertilisers and pesticides, as a lubricant

³³ Jessica L. Peet and Laura Sjoberg, *Gender and Civilian Victimization in War*. 1st ed. (Milton: Routledge, 2020;2019), 59.

³⁴ Peet, *Gender and Civilian Victimization*, 58.

³⁵ Alexander Watson, *Enduring the Great War: Combat, Morale and Collapse in the German and British Armies, 1914-1918*, (Cambridge;New York: Cambridge University Press, 2008;2014).

³⁶ Winegard, *The First World Oil War*, 93-96.

for machinery and for food transportation, a lack of oil meant a lack of food, which in turn had dire impacts on the war effort. Though there were other issues at play that also caused the fall of the Central Powers, such as economic issues and America providing reinforcements when they joined the Entente, Lord Curzon's statement was correct; oil was undoubtedly a significant deciding factor in the outcome of the war. The Central power's limited oil supplies weakened them, and the allies considerable access to oil further aided them in overcoming the Central Powers and claiming victory.