

The Illusionists of El Alamein

DECEIVING ROMMEL'S AFRIKA KORPS

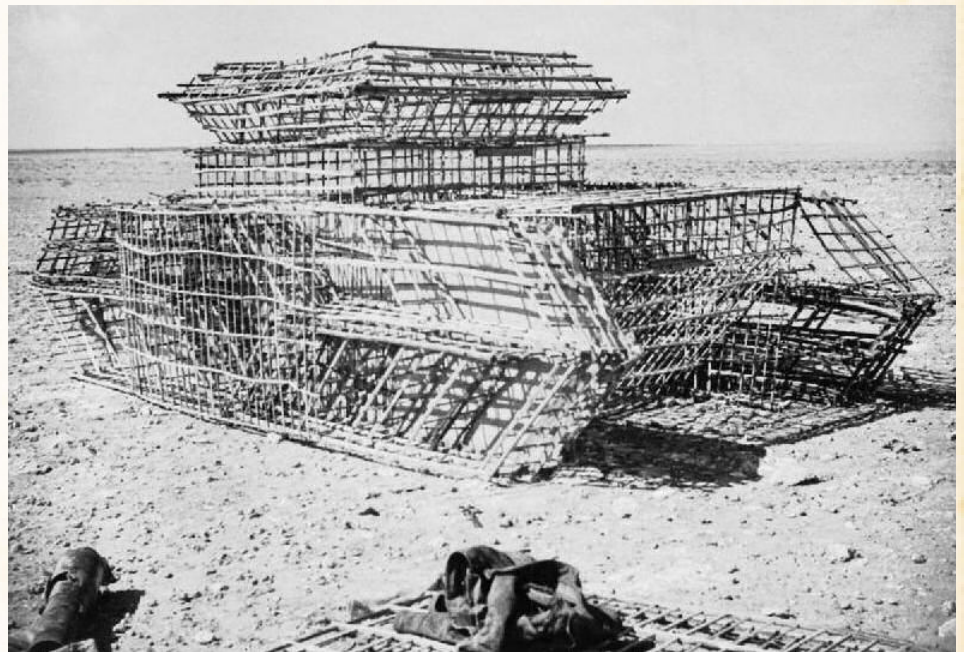
BY DANA ROVANG, PHD

Deceiving your enemy is a useful tool in the “theater of war.” In World War II, *Operation Bertram* - an Allied victory over Rommel's Axis forces in the desert of Egypt - imported elements from the stage, theater and film to deceive, surprise, and defeat the enemy (a very special kind of audience). *Operation Bertram* took place at the rail depot El Alamein in northern Egypt and the operation's success reversed Axis momentum in one of the War's most difficult terrains. To win, the Allies relied on the research and materials produced by the Camouflage, Development and Training Centre (CDTC). The CDTC brought together stage techniques organized by filmmaker and director Geoffrey Barkas, illusions by stage magician Jasper Maskelyne, and the counter-intelligence of a Cairo-based spy, Renato Levi, a Jewish-Italian double-agent also known as “Cheese” (or Lambert, or Mr. Rose). The second battle of El Alamein is one of the lesser-known battles of WWII, despite its importance to the overall defeat of the Axis

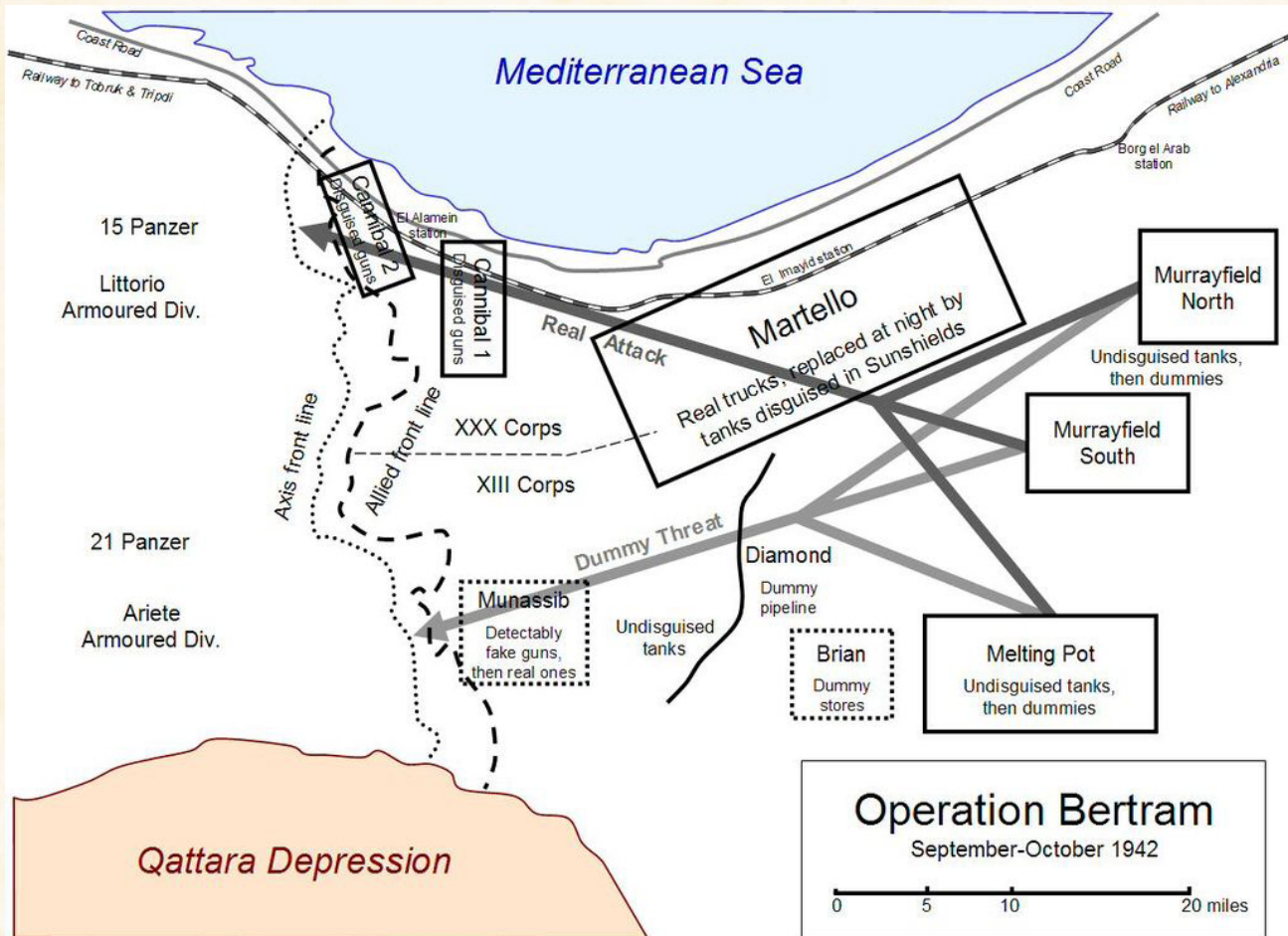
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“All warfare is based on deception. Hence, when we are able to attack, we must seem unable; when using our forces, we must appear inactive; when we are near, we must make the enemy believe we are far away; when far away, we must make him believe we are near.”
 - Sun Tzu, *The Art of War* (1: SS 18-19)

“Although in all other affairs it be hateful to use fraud, in the operations of war it is praiseworthy and glorious; so that he who gets the better of his enemy by fraud, is as much extolled as he who prevails by force.”
 -Niccolo Machiavelli, “Chapter XL-That Fraud is fair in War,” in *Discourses on the First Decade of Titus Livius*



STAGE DESIGN IN THE DESERT
Dummy Tanks in El Alamein
 WIKICOMMONS



OPERATION BERTRAM
WIKICOMMONS

powers. Additionally, the singular contributions of Renato Levi have not received much attention, as his British files have been released only relatively recently.

SETTING THE STAGE

As many of those familiar with WWII are aware, First Marshall Erwin Rommel – “The Desert Fox” – was one of the most formidable foes for the Allied armies in Northern Africa. A cunning strategic thinker, Rommel hounded British and Allied forces from Tripoli to Cairo. A number of Generals went toe to toe with him, and Rommel was

nearly always the victor, the Second Battle of El Alamein being one exception. Rommel had left the arena following the first battle, but he was ordered back to the desert once the Allies began their second attack in late October.¹

The first battle of El Alamein had ended in late July of 1942 when Rommel’s Afrika Korps stalled against the strategic position of the British troops. Rommel’s troops had sought to push East, and the Eighth Army’s entrenchment at the railroad halt, El Alamein, stopped Rommel’s advance and his efforts to take the Suez Canal. By the end of the first round, both sides were exhausted

and Rommel was ill. Privately, Rommel communicated to his wife, “Militarily, these are the worst days I have lived through.”² Rommel left the area to convalesce. He left his troops in the capable hands of his second in command, General Georg Stumme.

The terrain at El Alamein was key to the Eighth Army’s successful defense and later victory in the second El Alamein. To the north was the Mediterranean, and to the south was the great Qattara Depression (*see map above*). The Depression is hundreds of feet below sea level and

is characterized by soft, shifting sand and salt marshes. These geographic bookends ensured a relatively short line to defend, and very few avenues of circumvention. In between these features was the Libyan Desert - miles of sand and dunes pocked with explosive mines laid by Rommel's troops.

THE CDTC - The War Illusionists

The second battle of El Alamein was one of the first real tests of the Camouflage, Development, and Training Centre team. After Hitler attacked France and the Low Countries in May of 1940, Brigadier Dudley Clarke was charged with selecting and recruiting the elite group. WWI marked the start of large scale camouflage and visual deception in war. These techniques included terrain-based camouflage patterns for Doughboy uniforms and "razzle dazzle" markings on Navy ships. Following the war, however, these kinds of techniques were no longer actively pursued and the science fell away during the interwar peacetime. The CDTC training base was located at Farnham Castle in Surrey, and it was there that they resurrected the practice of illusion and cultivated new kinds of camouflage for the desert environment.

The crew moved in to new quarters in Cairo, and quickly set to work outfitting the Allied force. Simply put, the primary attack of *Operation Bertram* was to take place at the north end of the line by the El Alamein stop;



BRIGADIER DUDLEY CLARKE (1899-1974)
Head of the CDTC in WWII
WIKICOMMONS

therefore, the CDTC was engaged to make it seem as though the Allies had planned exactly the opposite.

Geoffrey Barkas and his crew were broadly responsible for three key sleights:

- 1) Concealing the northern troop and the build up to attack;
- 2) Making the troop build-up seem slower than it was; and
- 3) Make it appear as though the main attack would be from the south.

They would succeed on all counts.³

THE CREW

Geoffrey Barkas (1896-1979) was a filmmaker uniquely qualified to direct a huge production in the middle of the Libyan Desert. He was a

JASPER MASKELYNE
Maskelyne seemed the perfect embodiment of the Gentleman Magician.

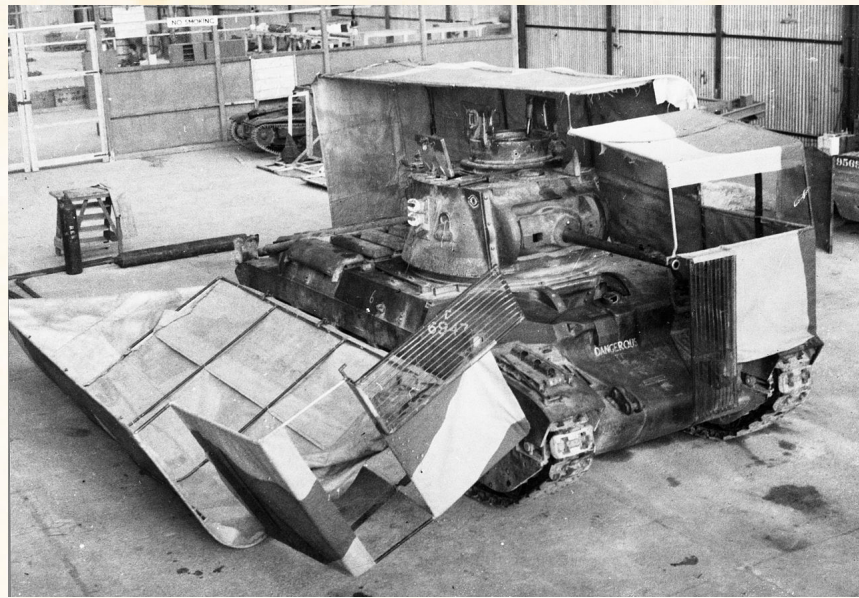
From the front cover of his book, Maskelyne's Book of Magic.

veteran of WWI and the director of fourteen films, including a documentary about the first flight over Mt. Everest (*Wings over Everest*, 1934) and the war movie, *The Battle of Gallipoli* (1931). *Gallipoli* won the U.S. National Board of Review top Foreign Film award. Barkas was charged with leading the group and organizing the deception efforts in Northern Africa.

Jasper Maskelyne (1902-1973) was nothing less than magic royalty, as he would likely be sure to tell you. His grandfather was the incredible John Neville Maskelyne, who had performed for decades as his Egyptian Hall in London, and his father was Neville Maskelyne, who continued in the family business to great acclaim. Jasper was every inch the dashing gentleman magician, yet he had not done as well as he had liked during the early years of the war. He had been turned down for



various posts in the army, until he was finally sent to Farnham for CDTC training. Maskelyne was instrumental in developing large-scale illusions for the CDTC, like the tank sunshields, but he also developed shoe penknives and other small gadgets for use in spy circles. His legacy as part of the CDTC is complicated, as Maskelyne often exaggerated his accomplishments, as is in keeping with the self-mythologizing storytelling common to stage magicians.



MASKELYNE'S SUNSHIELD TANKS
Lorry on the outside, tank on the inside.
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Joining Barkas and Maskelyne were talented painters, sculptors, and architects. These included painters Edward Seago, Julian Treveylan, Blair Hughes-Stanton, and Fredrick Gore, as well as designers Steven Sykes and Ashley Havinden. After training at Farnham, they were all shipped off to General Head Quarters (GHQ) in Cairo, and were designated "A" Force in charge of camouflage and deception in the desert theater.⁴

COUNTER-INTELLIGENCE The Left Hand of El Alamein's Desert Deception

Cairo was also the setting for SIME, the British Security Intelligence of the Middle East. SIME was then under the umbrella of GHQ, and they dealt in counter-intelligence; this included the handling a double-agent, known as CHEESE. Cheese was Renato Levi, an Italian Jew who also held British citizenship. Levi had volunteered to work with British services early on in 1939. Fortuitously, he was then

recruited by the *Abwehr*, the German's secret intelligence unit, and known to them as "Roberto." It was the German's idea to send Levi to Cairo in order to establish a wireless transmitter (W/T) base and recruit local informants, a development that the British were keen to capitalize upon. "A" Force noted his usefulness early on. A section of Levi's classified file read:

In October-November, 1941, the organization of deception was rapidly developing. "Advanced Headquarters, 'A' Force" saw in CHEESE a possible opportunity for a decisive stroke. The information despatched [sic] was gradually put on a far higher level, and close liaison was maintained between "A" Force, S.I.M.E. and the Operational authorities.⁵

Levi was seen as instrumental to the cause, and the counter-intelligence network he established in Cairo sent out a smoke cloud of misinformation with the British manning the W/T set with a fictitious informant,

"Paul Nicossof." The Germans began to receive information from "Nicossof," and gradually grew to trust him. However, the plan was nearly confounded by Levi's confidence in his own deceptive abilities: he was caught.

After Levi established the W/T base in Cairo, he headed back to Italy. While at his mother's hotel in Genoa in August of 1941, he was arrested, interrogated, and eventually imprisoned for crimes against the Italian state. Levi was eventually released in late 1943, and he never broke, keeping the W/T feed under "Nicossof" safe. While the Germans had significant issues with "Nicossof" early on, he was seen as a trusted informant by June of 1942, just in time for "A" Force to start feeding the Germans just the right amount of misinformation to throw them off the *Operation Bertram* scent.

According to his official files, “Nicossof” invented whole platoons, misrepresented troop movements, and at one point claimed that Allied troops had informed him that no attack was imminent, at least at the end of August.⁶ This last piece of misdirection was meant to deliberately make the Axis forces relax, while the CDTC went at work to make the ground situation look the part. *(For more on Levi, please see his article in this issue.)*



THE SUNSHIELD TANK
WIKICOMMONS

THEATER IN THE SAND

At El Alamein, the “A” Force made tanks look like transport lorries, and made lorries look like tanks. Jasper Maskeylyne invented the “Sunshield,”⁷ which disguised tanks as trucks – the casing would fall away in “halves” when the tank needed to have unimpeded vision and ease of movement. This was a lovely illusion not unheard of in standard stage magic.

“A” Force also found ways to conceal thousands of gallons

of tank fuel: they constructed false munitions depots, and built a 200-mile dummy water pipeline stretching to the south, codenamed “Diamond.” Meant to create the illusion that troops were building up in the south, the false pipeline operation crew pantomimed digging ditches and lying water pipe. In reality, the troops were placing 4-gallon empty petrol tins in the trench in five-mile stretches, which were then dug up at night and re-laid in the next stretch the following morning.⁸

In the south on Munassib Ridge, dummy tanks were allowed to deteriorate to reveal they were camouflaged, but at the last minute live artillery and munitions were brought in for a substantial assault. Because the Axis line was used to the false line, and the real munitions took them completely by surprise.⁹

OPERATION BERTRAM

Rommel came back from his recuperation to this: On the



OPERATION DIAMOND
Dummy pipeline construction, which also served to hide munitions and artillery.
WIKICOMMONS

evening of October 23, 1942, the Eighth Army Allied forces in Egypt under the command of Lieutenant-General Bernard Montgomery launched a massive artillery attack on the stalled Axis Afrika Korps forces. The main thrust came from the north, which was the opposite of where the *Panzerarmee* thought they were building up troops. Then, an echo attack came from the Munassib Ridge in the south, overtaking the idle Italian troops sent to oversee the “dummy tanks.” In a panic, the German commander Stubbe went out to the front lines, and immediately went missing. The British R.A.F. planes pounded the Germans, and made their land mines obsolete. They were outflanked, out-bombed, and taken completely by surprise. As recounted above, Hitler immediately sent Rommel back to northern Africa following the October 23rd attack.

In his own reflection of the second El Alamein, Rommel credited the Allied win on superior air power and not enough motorized units or Petrol resupply.¹⁰ It is true that the number of Allied tank units was double that of the German and Italian troops, and “the British command of the air was complete.”¹¹ However, it is likely telling that Rommel does not comment on the deceptions that led to outflanking and defeat of his *Panzerarmee* in the middle of the Libyan Desert. Upon hearing of his army’s near ruin, Hitler would not accept the situation and sent a blustering



GUN PORTEE
WIKICOMMONS

“victory or death” telegram to Rommel after they had been routed in early November.¹² Rommel regretted not completely retreating at the time: “With all my experience, I can confess to only one mistake – that I did not circumvent or even disregard altogether the “Victory or Death” order 24 hours earlier (Nov. 5, 1942).”¹³ He could have salvaged troops, equipment, and munitions.

British Prime Minister Winston Churchill declared victory in a speech on November 11, 1942. Speaking about R.A.F. operations in France and Flanders, Churchill continued, saying:

*It will be my duty in the near future to give a particular and full account of these operations. All I say about them at present is that the victory which has already been gained gives good prospects of becoming decisive and final, so far as the defense of Egypt is concerned.*¹⁴

After El Alamein and *Operation Bertram*, the Axis hold in Northern Africa was in tatters, Cairo was safe, as was the Suez Canal.

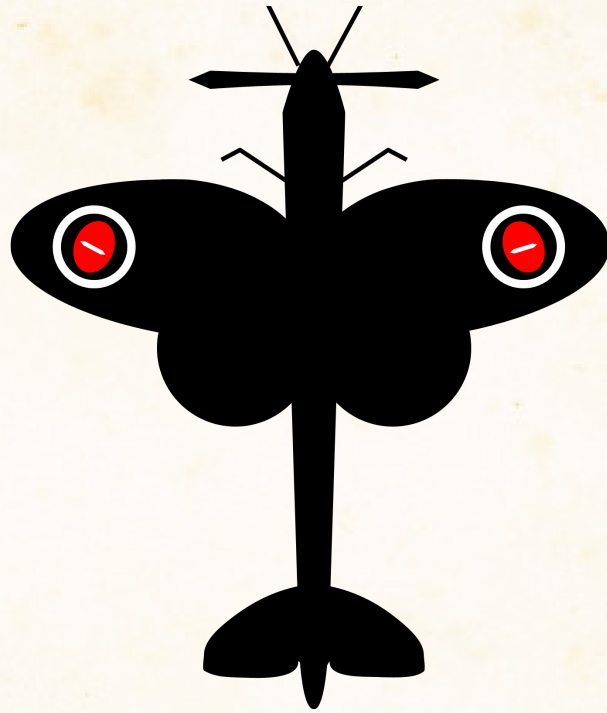
Levi was released in 1943 when his prison was liberated by the British, and we have few specifics for him following that. Barakas remained the head of the camouflage operation with the British Army, which included obfuscating troops during the D-Day invasion. Jasper Maskeylyne went back to work on stage, only this time he entertained solely for the troops.

By DANA ROVANG

This was a cursory discussion about the camouflage and deception used to great success at of the second El Alamein, and does not get into detail or specifics of troop movements. More extensive resources are found on the El Alamein story page at www.obscurerhistories.com

- 1) Erwin Rommel, *Rommel and his Art of War*, John Pimlott, ed. (London: Greenhill Books, 2003), 160.
- 2? "Letter to Lu, 18 July 1942," in Rommel, *Art of War*, 148.
- 3) Guy Hartcup, *Camouflage: A History of Concealment and Deception in War* (New York: Charles Scribner's Sons, 1980), 102.
- 4) Thaddeus Holt, *The Deceivers: Allied Military Deception in the Second World War* (New York: Scribner, 2004), 332.
- 5) "Report on Cheese," p. 5 (BNA-KV-2-1133-2: 38.)
- 6) "Double agent Roberto," (8/21/42), p. 2. (BNA-KV-2-1133-1: 18.)
- 7) Rick Stroud, *The Phantom Army of Alamein: How the Camouflage Unit and Operation Bertram Hoodwinked Rommel* (London: Bloomsbury, 2012), 135.
- 8) Hartcup, *Camouflage*, 103.
- 9) Hartcup, *Camouflage*, 105.
- 10) Rommel, *Art of War*, 159.
- 11) Rommel, *Art of War*, 171.
- 12) Rommel, *Art of War*, 168, 170.
- 13) Rommel, *Art of War*, 170.
- 14) PRIME MINISTER WINSTON CHURCHILL SPEECH AT THE MANSION HOUSE London, November 10, 1942, Reprinted *New York Times*, November 11, 1942. Accessed, 7/6/2015.

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SCIENCE SPOTLIGHT

Camouflage in Nature

The Dazzle camouflage of WWI was initially developed by British Zoologist John Graham Kerr (1869-1957), although he received no credit for this at the time. One of Kerr's specialities was camouflage in nature (or, cryptic coloration), which are markings that make it difficult to see an animal in its environment, or seem to make it look like another animal. For example, the eye-like markings on the polyphemus moth wings also resemble the eyes of an owl. Known as "mimicry," smaller predators such as small birds might leave the moth alone, fearing the more ferocious bird.

Cuttlefish are also experts at blending themselves into their environment to confuse prey.

The study of camouflage in nature has applications outside of the military. In the field of robotics, mimicry has given rise to a new wave of animal-inspired mechanics called Biomimetics. Not only does this field serve increasing varying purposes including nanotechnology, but it also helps us to understand the morphology and processes of organisms.

For more on this topic, including links, videos, and other online resources, please visit the El Alamein page on www.obscurehistories.com