“Mad Dogs and Englishmen”:
The Colonial Invention of Dog-Tracking Science
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In February 1938 Mustafa Mansour was sentenced to death by the Jerusalem Military Court for unlawful possession of a weapon and firing at a bus. The main evidence tying Mansour to the shooting was the tracking of a Doberman Pinscher: due to the darkness, the police could not pursue the “brigands” who opened fire immediately after the shooting. Accompanied by dogs, the police returned to the crime scene the following morning. Having found footprints, the tracking dogs led them to the defendant’s village and house, where they found a few rounds of ammunition, some of which were spent.¹

In relying heavily—or exclusively—on dog tracking evidence, Mansour’s trial was not unique in 1930s Palestine. Nor were such evidentiary practices confined to Military Courts. Since their introduction in 1934, Dobermans became a central feature of policing and trials in Palestine. Despite the known shortcoming and lack of adequate scientific grounding, canine tracking was central in trials in 1930s Palestine. Judges routinely relied on such evidence to establish guilt and in some cases—like that of Mansour—even sent defendants to the gallows based exclusively on such proof.

The turn to dog tracking represented a broader shift in policing, in Palestine and in the Empire. From 1860 onward, forensic technologies² replaced eyewitness testimony as a central mode of proof in criminal trials. The shift towards forensic technologies was not necessarily the result of scientific advances and “general

¹ “Trial of Arab Charged with Firing at Jewish Bus,” Palestine Post, February 24, 1938, p. 2.
² I use the term “forensic technology” to connote that the methods used were not necessarily “scientific” even though they may have been depicted as such. Some have since gained general acceptance in the relevant scientific communities, but for many such technologies the scientific foundations had not yet been in place when they were adopted by police and courts.
acceptance” in the scientific community: many such “sciences,” including fingerprinting, footprinting, the use of x-rays to determine age, handwriting identification and dog tracking relied on flimsy scientific foundations, if any. Furthermore, these technologies were often discovered and developed not by “men of science” in the laboratories of Britain’s leading universities; they were instead discovered by the “men on the spot,” British administrators in the far-flung corners of the Empire, grappling—sometimes intuitively—with the pragmatic challenges of everyday colonial policing in a desperate attempt to maintain order.

For decades, courts around the world have wrestled with two central and related dilemmas concerning the admissibility and weight of expert evidence: the correct standard to apply when evaluating science in the courtroom, and the degree of deference to which experts should be entitled when applying their methods. The first debate focuses on the problem of how non-scientist judges may assess the scientific validity of forensic evidence presented in courts: must judges defer to the scientific community at large to determine what is valid science or do judges in their role as fact-finders possess an independent authority and responsibility to determine the validity of science? After answering the first question, judges must decide whether the role of the expert (or rival experts) is to educate them, providing them with tools to arrive at an independent determination, or whether in a world of increasingly complicated scientific theories they must abdicate at least part of their role as fact-finders. By both accounts, however, science is something that develops outside the courtroom, and is brought to judges for legal evaluation and forensic validation.

Jennifer Mnookin has convincingly shown that from a historical standpoint, the process of judicial recognition of forensic science has not been unidirectional, from laboratory to courtroom. Science has not appeared fully formed in courts, with experts presenting their theories and their merits ready for judicial assessment. Instead, the process has been more dialectic and complex, with mutual feedback between courts and experts. Judges have in some cases demanded that self-fashioned

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3 The “general acceptance” rule was the test adopted in the United States in 1923 in the *Frye* case, which concerned the admissibility of polygraph evidence.

experts make their methods appear more “scientific” as a precondition for judicial recognition, in the process shaping and constructing science.

Still, Mnookin’s research has remained largely American and Euro-centric, thus overlooking some of the colonial dynamics that shaped early developments in the forensic sciences. Noting that handwriting was the first forensic science to be shaped by courts and not by the scientific community, Mnookin largely ignores a pattern that repeated itself throughout the British Empire, beginning with the appearance of fingerprints in the 1860s: forensic technologies often gained their status as “sciences” due to the exigencies of colonial rule.

In this paper (and in the broader project of which it is a part) I explore some of the reasons that converged to turn the colonies—and their courtrooms—into early developers and adopters of emerging forensic technologies. I argue that the absence of local cooperation, especially during times of insurrection, stimulated exploration of alternatives to eyewitness testimony. As laboratories in policing and governance, the colonies provided a fertile soil for experimentation with innovative investigative methods. Forensic sciences deemed crime scenes legible without the mediation of non-cooperative and seemingly deceitful native eyewitnesses. The new forensic sciences—such as foot and fingerprinting, as well as dog tracking—also provided European colonizers with new, alternative markers of individual identity, which allowed them to differentiate between natives they otherwise had difficulty telling apart. Moreover, the semblance of scientific objectivity and precision that accompanied such sciences augmented the image of the omniscient colonizer with his panoptic gaze and truth-telling abilities, while also legitimizing an imposed imperial legal order. Finally, though such new methods of proof would have met (and ultimately, often did meet) with opposition if first introduced in the metropole they encountered less resistance in the colonies, making the Empire a perfect laboratory for experimentation.

Using dog tracking as a case study, I show how a policing experiment came to gain the status of a “forensic science” reliable enough to condemn defendants to death. Focusing on the introduction of dogs into the Palestine Police force, I also explore this method’s unique characteristics, such as its cultural and religious
meanings for both Jews and Arabs. The transformation in the status of dog tracking, from its experimental roots in turn-of-the-century South Africa to its full adoption as a forensic science in 1930s Palestine, I argue, grew out of necessity rather than out of “general acceptance,” even among the emerging community of dog-tracking experts.

A. From Ithaca to the Cape: Dog Tracking in Literature and in Practice

Canine identification abilities have been celebrated in world literature for millennia. In Homer’s Odyssey, it is only Argos, his loyal and formerly formidable dog, who recognizes the disguised Odysseus upon his return to Ithaca. In Sir Walter Scott’s *Talisman*, it was the dog that found the Marquis Conrade to be the thief of the royal standard. In this literary tradition, in *The Adventure of Sboscombe Old Place* (1902), Sir Arthur Conan-Doyle recounts how a black spaniel held the key to the mysterious disappearance of Lady Beatrice: the dog’s peculiar behavior upon encountering Lady Beatrice’s carriage disclosed that her brother had disguised himself as his late sister to fool his creditors and prevent repossession of the estate by his sister’s brother-in-law.

Unlike humans, Conan-Doyle’s black spaniel was not fooled by outer appearances; thanks to sharper senses, or perhaps a sixth sense, he was able to accurately ascertain the brother’s true identity. Especially in an era of ubiquitous disguise and increasingly prevalent social and geographical mobility, ascertaining one’s true identity became critical not only for policing but also for enforcing social boundaries. Like in *The Talisman* and *The Odyssey*, dogs were believed to possess a superhuman capacity to determine identity in ways that deemed concealment futile.

These literary traditions reflected, at least in part, a reality. In what one Maryland judge euphemistically called a “colorful page of American folklore,” in the years leading up to the American Civil War bloodhounds were used to track down fugitive convicts and runaway slaves. Still, until the turn of the twentieth century, dogs had only been used to track down known items or individuals or to accompany

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3 *Terrell v. Maryland*, 239 A2d 128 (1968)
the police on patrol. Never before had they been used to track an unknown perpetrator based on physical evidence found at a crime scene.7

The first experiments in spoor8 crime scene scents were conducted in Natal, South Africa, in 1909.9 In 1911 a dog-training depot was erected in Quaggapoopt, outside of Pretoria. After considering a number of other breeds the Doberman Pinscher was found most suitable for the task. The Doberman was found “most useful and reliable,” possessing the finest combination of intelligence, stamina and olfactory capacities, able to track even 72-hour old tracks left by native South Africans.10 R.J. (‘Bobby’) Palmer, commandant of Quaggapoopt and later South Africa’s Commissioner of Police, explained that they “select outstanding trained dogs from a line of ancestors famed for brains, grit, and vitality, endowed with a strong scenting nose.”11 After undergoing an eighteen-month training program, the Dobermans were sent to outposts throughout the Union.12 With 140 dogs and thirteen trainers, in 1929 the training camp in Quaggapoopt boasted being “the only state-owned institution of the kind in the world.”13

In his celebration of the Dobermans’ abilities, Chief of Police de Villiers described numerous cases in which dogs played a key role in cracking unsolved mysteries. In one livestock theft case the tracks were nearly a week old and the trail over 50 miles long. Still, Trix the dog successfully led to a man whose belongings were searched. In his possession were “two sheep skins and some fresh fat.” The man was arrested, charged, convicted and sentenced to two years’ imprisonment with hard labor.14

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8 Meriam-Webster dictionary notes that the origin of the word “spoor” is from Afrikaans.
9 Canis Africanis, 196.
10 Col. I.P. de Villiers, “Dogs as Detectives in South Africa,” 2 Police J. pp. 189 (1929). The author does note that the Dobermans are, however, “more excitable than the Airedale-Bloodhound cross, but are highly intelligent, relatively easy to train, and are excellent on the trail.” Id. at 190.
11 Canis Africanis, 208.
12 Canis Africanis, 207.
14 Id. at 192.
I. The Questionable Scientific Merits of Dog Tracking

Researchers writing in the 1920s and 1930s concluded that from a scientific standpoint canine olfactory capabilities were insufficiently substantiated and their achievements exaggerated. Summarizing the state of the field in 1928, C.J. Warden and L.H. Warner of Columbia University's Animal Laboratory (a section within the Department of Psychology) reported and interpreted the results of a number of experiments conducted to test the scientific soundness of dog tracking. The most significant were a series of four experiments conducted by Police Lieutenant Konrad Most and Professor Pfungst in Germany in 1914. In the first, dogs were asked to follow a fresh trail. None proved able to do so accurately when additional fresh prints were present. The dogs’ tendency was to follow tracks that continued in the same general direction as ones with which they started, thus rendering their tracking abilities useless if the perpetrator had taken a sharp turn. The second experiment demonstrated dogs’ inability to reliably track prints older than 6.5 hours. The third and fourth demonstrated the dogs’ inability to match between objects and their owners with any accuracy exceeding a random match. As a result, the authors reported, the Prussian Police were prohibited from using dogs for tracking.

In their attempt to explain how and why the dogs had nevertheless managed to track criminals in some cases, the authors speculated that this was a result of what they called a “Clever Hans” error: acting on his own theory as to the identity of the perpetrator, a handler might inadvertently lead a dog to act accordingly. Similar concerns were expressed by a 1930s South African Commission of Inquiry looking into the work of the police: though the report stopped short of accusing the police of flat-out dishonesty, the report mentioned “evidence… of a disturbing nature… tending to show that a dogmaster can, if so minded, control the activities of a dog by secret signals in such a way as to make the dog point out any particular person...

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16 For a description of the experiments see also Dr. Wallace Craig, “The Dog as Detective,” 18 Scientific Monthly 38 (1924).
17 Id.
18 Named for mathematician von Osten’s wonder-horse Hans, who could allegedly solve mathematics problems, but in 1904 Pfungst found it to be the involuntary cues given to him by humans (not only von Osten) who tipped him concerning the correct answer. Dr. Wallace Craig, “The Dog as Detective,” 18 Scientific Monthly 38, at 43 (1924).
suspected by the dogmaster.” Other theories suggested that dogs were unable to track based on crime-scene scents but instead picked up on other cues such as fear, which led them to choose one individual rather than another in a police lineup. This of course presented the risk of convicting individuals based on their irrational fear of dogs—which in some cases may have also led them to confess—and not due to their relation to the alleged crime.

B. The Shifting Paradigm of Policing in Palestine and the Turn to Forensic Science

The adoption of dog-tracking, and of forensic technologies and experts in Palestine more generally, must be seen against the backdrop of the 1929 “disturbances” and the administrative changes in their wake. On August 23, 1929, violence erupted in Jerusalem’s Old City. Following Friday prayers at the Haram a-Sharif, a number of Jewish inhabitants were attacked. At around the same time, two Arabs were murdered in the Jewish neighborhood of Me’ah Shearim outside the Old City walls. In the coming days violence spread throughout Palestine, from Hebron to Safed. The immediate trigger for violence was perceived Jewish defiance of the status quo concerning prayer rights at the Western Wall. Perceived increase in Jewish control over this area, one of Islam’s holiest sites, fed broader fears of growing Jewish domination in Palestine, which by some accounts included plans to build the third Temple on the site of the Haram a-Sharif. Looming in the background were ongoing debates over Jewish immigration and land purchase quotas, as well as breached British promises to institute proportionate representation.

Following the 1926 reforms of High Commissioner Lord Plumer, the Palestine Police found itself ill-equipped to address the mid-summer nightmare that ensued. Under Plumer, the Palestine Police’s British component was pared down to a lean

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20 To be sure, Jews—especially from the Revisionist Party—had their own fears that the British were defying the status quo to the Jewish detriment. See Martin Kolinsky, Law, Order and Riots in Mandatory Palestine, 1928-1935, 40-1 (1993)
force of 175 (mostly veterans of the Royal Irish Constabulary, the notorious *Black and Tans*). Plumer’s plan of relying on the Royal Air Force (R.A.F.) and on reserves from other British dependencies in the region proved inadequate: by the time these reserves arrived in Palestine, matters had spiraled out of control. To complicate matters further, High Commissioner Chancellor was vacationing in England at the time, leaving the Chief Secretary in charge.

Violence quickly spread across Jerusalem, its suburbs and beyond. On Saturday, villagers who poured in from the outskirts of al-Halil overwhelmed Raymond Cafferata’s police force of thirty-three men.\(^{21}\) At the end of a violent day, the Jewish death toll reached 67. Some were reported to have been raped, castrated or burned alive. The understaffed and overwhelmed police began shooting to kill, resulting in nine Arab casualties. Violence also began spreading northward, with events in Safed mirroring those in Hebron. At the end of the violent week the death toll reached 133 Jews and 116 Arabs. Over 500 were injured. On August 31 High Commissioner Chancellor—who has cut his vacation to England short—returned to a very different Palestine than the one he had left a mere few weeks earlier.

The police not only failed in preventing the violence; they were also unsuccessful in bringing perpetrators to justice. In 420 indictable offenses reported the accused remained “unknown.” Crimes that were ultimately prosecuted resulted in a 40% acquittal rate (see Table 2).\(^{22}\) Though these statistics did not differ drastically from Palestine’s peace-time conviction rates—which hovered around 60%\(^{23}\)—stakes were higher and sentiments ran deeper: the Arabic and Hebrew presses in Palestine, as well as the British press, were watching carefully and severely criticized their outcomes.

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\(^{21}\) I refer to it here by its English and Hebrew name. The city is known in Arabic as al-Halil.  
\(^{22}\) See *Palestine Blue Book*, 1929, at 343. These were the statistics at the end of 1929. Despite government efforts to prosecute these cases quickly, and the erection of special tribunals for this purpose, many cases were still pending at the end of the year.  
\(^{23}\) In magistrates courts the conviction rate was generally higher—around 75% in 1929. *Id.*
To avoid the semblance of racial bias, the High Commissioner decreed that Jewish Attorney General Norman Bentwich no longer determine criminal charges on his own, but in consultation with Solicitor General Robert Drayton. All riot-related crime was to be tried by British rather than native magistrates and judges. Yet this did

24 Chancellor initially wanted to strip Bentwich of his prosecutorial decision-making power in riot related cases, but withdrew from his position as this would cause irreparable damage and be a huge vote of no confidence in the Attorney General. BRUN, at 254.
not deflect allegations of bias from both sides; nor did it secure convictions. At the behest of United States Supreme Court Justice Louis Brandeis, Zionist attorney Bernard Joseph issued a 60-page “Report on the Scope, Character and Result of the Judicial Proceedings Upon the August 1929 Riots in Palestine.” In his report, Joseph put forth a scathing criticism of Palestine’s police, prosecution and judiciary’s ineptitude to bring rioters to justice. Of 43 Arabs accused of premeditated murder in Hebron, he noted, only 17 were convicted. Of 56 charged in Safed, only 32 were convicted. In Haifa, all eight defendants were acquitted. The Arabic press, in turn, was outraged when the Supreme Court set aside police officer Simha Hinkis’s conviction for the premeditated murder of five Arabs in Jaffa. Hinkis was instead convicted of manslaughter and sentenced to fifteen years’ imprisonment rather than death.

Joseph was particularly critical of the role played by the Palestine Police in riot-related trials:

In case after case policemen present when crimes were committed by Arabs pretended they saw and heard nothing to enable them to identify the offenders and were unwilling to give evidence which would be of assistance in tracing the criminals… So far as I have ascertained there were only three instances in which Police gave evidence for the prosecution in the Hebron cases. At the same time however a number of Policemen managed to have evidence to give in favour of Arabs accused of crimes. At least 13 Policemen and Police Officers gave evidence in favour of accused Arabs in the Hebron trials. In several cases the untruthfulness of the Police witnesses for the defence was so apparent that they were rebuked by the Court.

Joseph went on to flag the ubiquity of perjury in such proceedings, which in his opinion went to the heart of the conviction-rate problem:

The Arabs are well-known to be ready to lie and give false evidence on the slightest provocation. This fact was clearly stated by the Haycraft Commission in their report on the 1921 riots when they stated that most of the Arab mukhtars and notables has in their opinion “lied with dignity and deliberation.” This being the case and taking into account the fact that the concocted charges against innocent Jews were of so grave a nature it was certainly the duty of the Attorney General in the public interest to take drastic measures to procure the punishment of the prejurers [sic] in order to curb that tendency. His failure to do so will only serve as encouragement to the continuation of that practice. By those who witnessed the extent of perjury

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25 For this purpose, a number of British officials with no legal training were given magisterial warrants.
26 ISA P 758/4.
27 ISA P 758/4 (annexes).
28 Cr.A. Hinkis v. The Attorney General, 1 PLR, at 441 (1933).
29 ISA P 758/4.
committed during the investigations and trials the matter is regarded as so serious as to be a positive danger to life and liberty and a fundamental drawback to obtaining justice in the Courts.

Joseph’s observations were neither original nor unique: for centuries, native perjury was a familiar colonial trope. From India to Egypt, administrators complained that the Orient was rife with perjury.30 T.B. Macaulay famously observed,31

What the horns are to the buffalo, what the paw is to the tiger, what the sting is to the bee, what beauty, according to the Old Greek song, is to women, deceit is to the Bengali. Large promises, smooth excuses, elaborate tissues of circumstantial falsehood, chicanery, perjury, forgery, are the weapons, offensive and defensive, of the people of the Lower Ganges.

Though all agreed about the ubiquity of perjury, explanations for it varied by time and place: some in India thought it to be the result of British failure to effectively invoke the sacred in testimonial oaths. This led to a series of practices whereby natives would be sworn as witnesses on items sacred to them including tiger skins, basil leaves, or the beard of the Prophet. Others attributed perjury to the Oriental inability to reason: Lord Cromer famously wrote that “Accuracy is abhorrent to the Oriental mind.” The Arab, in particular, he wrote was “singularly deficient in the logical faculty.”32 In Palestine, judges often emphasized the excessive vindictiveness of Arab witnesses that drove prosecutorial perjury. By some accounts, it was British insistence on individual punishment in a “tribal culture” of collective responsibility that led individuals to falsely frame individuals of a rival clan if the culprit was unknown.33 By other accounts, the natives were understood to be “downright malicious,” framing each other for crimes that never took place.34

30 This was not only a problem in Palestine, but in Egypt and India as well, thought some of its characteristics were unique to Palestine. See Binyamin Blum, Evidence Rules of Colonial Distance. See also Kolsky, Colonial Justice in British India: White Violence and the Rule of Law; Wendie Schneider, “‘Enfeebling the Arm of Justice’: Perjury and Colonial Administration under the East India Company,” in Modern History of Crime and Punishment, 299-327.
32 The Earl of Cromer, II Modern Egypt, 146 (New York, 1908). Cromer, however, believed that “He will often break down under the mildest process of cross-examination.” Id. Edgar Bonham-Carter similarly attributed perjury to the fact that the Iraqi “has no knowledge of the value of evidence and fails to distinguish what he has observed from what he has been told or has inferred.”
33 “It is known to the friends and relatives of the murdered man that the murderer is one or other of a few individuals, and after a few hours’ discussion all present at the murder are prepared to swear to the identity of the murderer or murderers. To men brought up under the tribal custom that the tribe is responsible for a murder committed by any member of the tribe, it must seem of comparatively little importance which member of the tribe committed the murder.” Bonham-Carter, annual report Iraq 1919.
34 This was understood to be the case in Palestine.
Whether mendacity was an innate deficiency, a symptom of excessive vindictiveness, or a byproduct of imposed norms, British administrators considered perjury in the colonies to be endemic. In Palestine, from the 1929 disturbances onward, perjury was increasingly seen through a subversive, nationalistic prism. Especially during times of unrest when crime control was becoming the highest priority and testimony became difficult to secure, the British legal system had to find an alternative to eyewitness accounts. As the following section will demonstrate, forensic sciences presented an attractive alternative.

I. From Rifles to Notebooks: The Turn to Forensic Science

Soon after the “disturbances” subsided, a commission of inquiry headed by Sir Walter Shaw, former Chief Justice of the Straits Settlements, was dispatched to Palestine. Its mandate was to “enquire into the immediate causes which led to the recent outbreak in Palestine and to make recommendations as to the steps necessary to avoid recurrence.” Since the Shaw Commission identified immigration and land purchases by Jews to be central causes of Arab grievances, their Report recommended further inquiry into limits on Jewish land purchase and Palestine’s absorptive capacity. Sir John Hope-Simpson, a Liberal MP, was sent to head a committee that would look further into these questions, resulting in a recommendation that Jewish immigration to Palestine be significantly curtailed and land sales restricted. Labour’s Secretary of State for the Colonies, Lord Passfield, adopted the recommendations, resulting in the Passfield “White Paper.” With pressure from the opposition in Parliament, however, the White Paper was ultimately never brought into effect.

At High Commissioner Chancellor’s behest, the Shaw Commission also recommended dispatching a police expert to assist in reorganizing Palestine’s force. The force’s size (especially its British contingent) was believed to be inadequate, its intelligence service deficient, and its leadership wanting; all these contributed to the outbreak and escalation in violence while the Palestine Police stood by helplessly.

35 The other members were Sir Henry Bretton (Conservative), R. Hopkin Morris (Liberal) and Henry Snell (Labour).
36 KOLINSKY, supra note 4, at 73.
37 Id.
Herbert Dowbiggin, Inspector General of the Ceylon police and a renowned authority on colonial policing, was assigned to the task.\(^{38}\)

Dowbiggin’s recommendations were somewhat counterintuitive: rather than reinstituting the militarized gendarmerie that Lord Plumer had dismantled, Dowbiggin recommended a shift towards a more “civilian” or “blue” police force.\(^{39}\) Cynics commented that Dowbiggin replaced “old mounted warriors” with “pimply-faced youths from the training school.”\(^{40}\) Despite its personnel, which continued to draw heavily from the Royal Irish Constabulary, Dowbiggin hoped that the Palestine Police—unlike its colonial counterparts—would distance itself from the Irish militarized model.\(^{41}\)

According to Dowbiggin’s vision Palestine’s policemen would be better educated (they now had to pass literacy tests) and better integrated among themselves (Arabs, Jews and Britons) and within the communities they served. They would be armed with notebooks rather than rifles.\(^{42}\) This was part of a broader vision for bridging the state/society gap, making the police appear as a less coercive force, external to the population it policed. To implement Dowbiggin’s recommendations, one of his disciples, Roy Spicer, was commissioned from Kenya to head the Palestine Police. A major component in Dowbiggin’s police reform was the restructuring of the Criminal Investigation Division (CID). Under the stewardship of Harry Rice, Spicer’s comrade from the Kenyan Police, the CID underwent significant reorganization. Representing another aspect of the shift from rifles to notebooks, greater emphasis was placed on scientific and intelligence-gathering capabilities.\(^{43}\) As Horne recounts, “For some years the government analyst had been doing a few cases for the police.

\(^{39}\) The Gendarmerie was disbanded in 1928.
\(^{40}\) Gad Kroizer, From Dowbiggin to Tegart: revolutionary change in the colonial police in Palestine during the 1930s, 32 J. of Imperial and Commonwealth History 115 (2004).
\(^{41}\) For an analysis of the “Irish Model” and its influence on the colonies see Policing the Empire: Government, Authority and Control, 1830-1940 (1991), Chapter II in particular.
\(^{42}\) Kroizer, supra note 20, at 115.
\(^{43}\) Concerning the focus on political intelligence, see Kolinsky, at 101.
But in 1932, a small laboratory was opened in the headquarters building.\footnote{HORNE, at 471.} Whereas until 1932 the Palestine Police relied mostly on Medical Examiners and, to a limited extent on chemical tests such as Benzidine to distinguish animal from human blood,\footnote{See B 34/2, a 1924 case in which police employed Benzidine and Precipitin to examine bloodstains. For an analysis of the advantages of benzidine in investigating crime with particular reference to Palestine, see A.E. Harwich, *The Benzidine Test as an Aid to Criminal Investigation*, 5 POLICE J. at 587 (1932). Harwich explains how most murders in Palestine are conducted with knives, and due to the great amount of force and proximity needed for this kind of murder, the culprits frequently are covered in the victim’s blood.} the restructuring equipped the CID with new detection and analysis capabilities. Analysts now conducted ballistic, blood and semen analysis, identified firearm markings and fabrics. The centerpiece of the new laboratory was the “comparator microscope,” first used to identify the assassins of Sir Lee Stack Pasha, Governor General of the Sudan and Sirdar (commander-in-chief) of the Egyptian Army, who was assassinated in Cairo in 1924. From 1932 onward, the microscope was used routinely for firearm identification in Palestine.\footnote{HORNE, at 471.}

Horne perhaps exaggerates when observing that “Palestine had one of the first police forces in the world to explore the possibility of forensic science as an aid to detection and conviction.”\footnote{Id. at 471.} Forensic technology had been available for decades in other parts of the British Empire, including neighboring Egypt.\footnote{Sydney Smith, *MOSTLY MURDER*.} Yet it is worth noting that the laboratory in Palestine was established three years before its English counterpart, further suggesting the relation between colonialism and the development of forensic science as well as the Empire’s role as laboratory.\footnote{Norman Ambage & Michael Clark, ‘Unbuilt Bloomsbury’: Medico-Legal Institutes and Forensic Science Laboratories in England Between the Wars, in LEGAL MEDICINE IN HISTORY 293-4. http://www.fbi.gov/about-us/lab. A number of labs predated the FBI’s. Los Angeles was the first in the United States, in 1924.}

Forensic science was quickly incorporated into the Palestine Police’s everyday work. New recruits were brought to police headquarters at Mount Scopus, and given a “smattering of forensic stuff, such as the theory of blood grouping and the test for human or animal blood.” They were “taught a bit about the impact of various calibers of firearm bullets,” given “an outline of the fingerprint classification system, and how to search for, identify and remove a fingerprint from the scene of a crime.” They were
also “given instruction in footprints, and in general what to look for and how to investigate various types of crime.” Crime scene investigators were given “Medico-Legal and Post-Mortem Specimens” forms to help them collect and label samples and ensure their admissibility in court. By 1937 a medico-legal course was also offered at the Jerusalem Law Classes. It is within this broader context that we must consider the import of South African Doberman Pinschers.

Though the literature on the Palestine Police has developed considerably in the past two decades, most scholars have focused on the force’s administrative re-organization and re-staffing. New methods of policing and proof and the integration of forensic technologies into crime detection and prosecution are seldom mentioned. This absence characterizes not only literature on Palestine but most studies on policing in the empire. Yet harnessing forensic technologies marked a new era of policing. The increased use of forensic technologies draws attention to a key component in Dowbiggin’s substitution of notebook for rifle: science replacing brute physical force as a new source of surveillance, deterrence and legitimacy.

Forensic science offered a number of advantages over previous policing and governance policies associated with Indirect Rule: the universality of science provided a semblance of objectivity and equality. Perhaps more importantly, forensic science provided unmediated state access to evidence, bodies and crime scenes. Science rendered crime scenes and defendants legible even against their will and without the cooperation of eyewitnesses. With fresh memories of the police’s

51 M 5102/11; M 5102/12.
53 See POLICING THE EMPIRE: GOVERNMENT, AUTHORITY AND CONTROL, 1830-1940 (1991) (an edited volume recently published, where absolutely no mention is made of forensic science and its role in policing).
54 By beginning his analysis with the Dowbiggin Report, without examining the status quo ante, Kroizer’s analysis of the Palestine Police overlooks the relative decrease in reliance on local authority in post 1929 Palestine. My comparison of policing methods before and after the disturbances makes Dowbiggin’s friendlier and more integrated designs for the police appear far more intrusive than Kroizer suggests. Reform in post 1929 Palestine contrasts with Bayly’s account of the Indian case: whereas the 1857 mutiny led the British to rely more heavily on local leadership, in Palestine its effects were the opposite. See C.A. BAYLY, EMPIRE AND INFORMATION 339.
ineptitude in bringing perpetrators to justice during the 1929 disturbances—mainly due to witness non-cooperation (whether ideological or due to witness intimidation) and with mounting British fears of rebellion in Palestine, such unmediated access was indispensible.

C. From Bedouin Trackers to Doberman Pinschers: Establishing Palestine’s Dog Section

“. . . [The dog] hath a share of man's intelligence, but no share of man's falsehood. You may bribe a soldier to slay a man with his sword, or a witness to take life by false accusation; but you cannot make a hound tear his benefactor. He is the friend of man, save when man justly incurs his enmity.”
Sir Walter Scott, Talisman

Appropriately anointed “The year of the Dog” by the Chinese calendar, 1934 was indeed a year of great canine advances in Palestine. A convergence of factors led to the establishment and later expansion of the Palestine Police Dog Section: first—and perhaps most significant—was Roy Spicer’s appointment as Inspector General of the Palestine Police. Even before arriving in Palestine, while serving in Kenya, Spicer awaited an opportunity to enlist canines into police duties. The 1934 acquittal of Avraham Stavsky of the Revisionist Party for the murder of Haim Arlosoroff provided the impetus to seek other, more reliable (or at minimum, less impeachable and refutable) trackers than the Bedouin trackers who testified in that case. The 1933 disturbances, suppressed before reaching 1929 proportions, reminded the British that they could no longer rely too heavily on eyewitnesses and local support in policing. This underscored the urgency of substituting dogs for Bedouin trackers. The 1934 visit of Rudolfine Menzel, a world-class expert in dog training, lent additional support for Spicer’s program.55

With the arrival of three South African Doberman Pinschers on Christmas Eve of 1934, the Palestine Police inaugurated its Dog Section. In using tracking dogs the colonies were again ahead of the imperial metropole: inspired by successes in the colonies and on the Continent (mainly Germany), the Metropolitan Police finally

introduced their first specially trained tracking dogs—Labradors—only in 1938, nearly three decades after South Africa.56

In an attempt to explain canine absence from the Palestine Police until 1934, Horne cites the “prevalence of rabies.”57 Though rabies was in fact rampant, this threat was hardly unique to Palestine. Nor would the police dogs—strictly controlled and held in well-maintained kennels—be particularly susceptible to diseases spread by Palestine’s stray dogs. Initial aversion to the use of dogs may have stemmed, at least in part, from Muslim (and Jewish) distaste for dogs, an issue I shall take up shortly.58 This may also explain why the Ottoman police did not employ them in the first place. Furthermore, by Ottoman accounts there was hardly a need for canine skills in the police force: asked in 1933 about the use of dogs by the Ottomans, Ibrahim Bey Stambouli, a veteran of the Ottoman police, reportedly responded, “Why would they? They had village trackers which are better than any dog.”59

Another reason for the absence of dogs was their prohibitive cost. At £P.25 plus the cost of transportation, the six-month training of handlers and the maintenance of kennels, Dobermans were “not a cheap form of detective.”60 Reflecting a decade later, Spicer recounted his amazement with the Dobermans’ tracking abilities after visiting their South African training depot in 1927 while serving in Kenya.61 He reported how easily the dogs tracked his prints “across dry veldt” even though he had walked from 4 p.m. until 9 a.m. the following morning and made every effort to cover his tracks: he had “tried every stratagem and trick performed by a hunted stag. I doubled my tracks, chose stony ground, went round in circles and jumped out; but the bitch never missed a yard and marked my entry into a car on the main road with no hesitation.”62 Though he would have liked to import the dogs into Kenya, he could not justify the expenditure. They would be introduced only three decades later, during the Mau Mau Revolt. In Palestine, the Ottoman police’s skilled Bedouin trackers

58 YUSUF AL-QARDAWI, THE LAWFUL AND PROHIBITED IN ISLAM 116.
59 Horne, at 454.
61 Id. at 245.
62 Id.
perhaps also made the Dobermans seem like a frivolous expense, especially during times of economic austerity as the late 1920s were.

Yet as the 1930s progressed, the need for canines on the Palestine force became more justifiable. First, growing challenges in maintaining law and order and the decreasing confidence in the Bedouin trackers led officials to seek alternatives. Cases like the Arlosoroff murder trial placed Bedouin tracking skills and methods under considerable public scrutiny, leading some to doubt their reliability. At trial, both trackers brought to the Tel Aviv beach in June 1933 were deeply discredited and embarrassed on cross-examination by defense attorney Horace Samuel as Samuel laid bare the fallibility of their methods: rather than following the footprints of the alleged murderers, cross-examination indicated that the they had likely followed the prints left by other policemen who arrived at the scene earlier. The footprints had been a key piece of evidence for the prosecution: they corroborated Arlosoroff’s widow’s identification of Abraham Stavsky, which (despite Samuel’s undermining) initially led to his conviction at the Court of Criminal Assize and to the death penalty. On appeal, however, the Supreme Court found that the trackers’ evidence should have been given absolutely no weight, leading to Stavsky’s acquittal.

Coupled with the Palestine Police’s inability to bring criminals to justice during the 1929 disturbances, Stavsky’s acquittal helped justify the Dobermans’ expense. Together they paved the way towards making Inspector General Spicer’s “dog dreams… come true.” Weeks after Stavsky’s acquittal Sergeant Parker and Constable Pringle set off for South Africa, for a six-month training course. They returned to Palestine at the end of the year with the three Dobermans: Ria, Gift and Mayer.

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63 Samuel, at 62-76. The Supreme Court ultimately entirely discredited the testimony of the trackers and dismissed it as corroboration.
65 Palestine Review, vol. IV, No. 1, 1939 (Friday, April 21, 1939): “… almost the first mention which I can remember being a complaint that the services of a certain training school were not utilised after Dr. Arlosoroff’s murder.”
68 Police Dogs for Palestine: Officers Return with Trio, PALESTINE POST, December 24, 1934, p. 10.
Incorporating dogs into crime detection became Spicer’s pet project. After bringing the first Dobermans to Palestine, Spicer fostered the vision to “spread the police dog cult,” as he called it, “into other Colonies and into the British Police Forces themselves.” He found canines far more promising than any other available detection technology of that era: “The rest of the police world, Great Britain included, may have finger-print expertise, wireless, mobile cars, and telephone kiosks, but until they take up the police dog as their best detective, they cannot expect to compare with the South African Police…” The Dobermans were “uncanny in their scenting powers and in their intelligence. They are in my opinion, as infallible in identification as finger-prints.” Moreover, whereas “many a finger-print is not left for the convenience of the police, and even if found on the scene of a crime is blurred and indecipherable… to a Doberman Pinscher the smell of one human being cannot be repeated or copied, and, so far as I know, the Palestine criminal is not more odiferous than criminals in other parts of the world.” In a 1936 article in the Police Journal, Spicer urged his colleagues throughout the Empire to “adopt the Doberman Pincher, see that every country and county has its quota of dog-masters and trained dogs, and you will be able to detect crime in a manner beyond the wildest dreams of Conan Doyle and Edgar Wallace. I am not romancing; I am not exaggerating. I have never been more serious in my life.”

To counter any possible doubts, Inspector General Spicer enlisted the Palestine press to disseminate accounts of the canine’s successes. His campaign was so effective Davar took credit for having suggested the idea of police dogs to Spicer in the first place: on March 1, 1935, Davar’s front page recounted the first success of

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69 The Palestine Police’s choice of two non-commissioned Britons, rather than local policemen, for dogmaster training was no coincidence. It reflected a South African requirement: when the Peshawar CID (India) explained in 1938 that due to a shortage in European offices in the North-West Frontier Province it would send two commissioned Indian officers, their proposal was rejected. Assurances that the Indian officers “would of course conform in every way to European customs” and that they were “well educated men of good family and good manners who would fit in anywhere, provided that they were given a fair chance” did not suffice. As Chief Deputy Commissioner George Baston explained “Our Dog Training Depot is manned entirely by Europeans, and in this country, where the colour bar is so clearly defined, it would be quite impossible for me to accept your Indian Officers for a course in dog training and mastership.” As a result, two white non-commissioned officers were sent for the six-months’ training and returned with “6 dogs… carefully selected… from [the SAP’s] best strain.”

70 Spicer, at 251.
71 Id. 250-51.
72 Id. 251.
73 Horne, at 456. For examples of such publicity see Police Use Dogs, Davar, March 1, 1935, at 1.
the mythical creatures in solving crimes. According to the article, Gift and Mayer were brought to sniff a jewelry box from which £P.15 were stolen. Each leading their handlers separately, the two dogs followed identical trails to Dir Yassin, a few kilometers away from the Yemin Moshe crime scene, where both gave tongue. They then went on to separately select the same individual in an identification parade.74

In other cases the dogs were famed to have followed 72 hour-old tracks,75 distances of up to 3 miles from the initial spoor, and through terrain bereft of visible tracks.76 News of the dogs’ incredible tracking powers traveled beyond Palestine’s frontiers: French authorities in Lebanon soon requested their assistance.77 In their first year of operation, the dogs were put to work in 99 crime scenes, leading a number of suspects to confess.78

The canines’ ability to lead criminals to confess highlights a central aspect of dog-tracking’s success in Palestine: their psychological effect, a matter I shall take up more fully below. Similar effects were noted and lauded in South Africa: an experienced handler, who came to realize the dogs were “a hopeless failure” implied that Africans picked at identification parades by dogs very often confessed even when other evidence suggested their innocence.79 Since out-of-court confessions were sufficient in and of themselves to prove guilt, it was immaterial whether or not the dogs were sufficiently accurate. If Palestine’s inhabitants believed the dogs possessed such powers, that itself could help reduce crime and lead suspects to confess to crimes—even if they did not commit them. That would allow the police to consider the dog tracking “successful” and the prosecution to close the case.

To that end, to meet increasing demand for canine assistance (172 calls in 1936), during the Arab Revolt (1936-1939) the Royal Air Force placed aircrafts at the Dog Section’s disposal. “Arthur’s Dogs” (named for High Commissioner Arthur Wauchope) could now fly, and magically appear anywhere—even a day’s journey

74 The Police Uses Dogs, DAVAR, March 1, 1935.
75 HORNE, at 458
76 Id.
77 Borrowing Palestine Police Dogs, PALESTINE POST, October 14, 1935.
78 HORNE, at 458.
from Jerusalem—within minutes. “To the rural villager who decided to break the law, the new dog section now began to appear ubiquitous.”80 From their kennels atop Mount Scopus, the Dobermans could sniff out criminals in Palestine’s most remote corners; this alone would keep criminals at bay. Of the 172 unsolved mysteries in which they were employed in 1936, the dogs were reportedly “completely successful” in 87.

With the canines’ success, however, came certain professional risks: the Dobermans increasingly became targets of terror and criminal attacks.81 The police responded by providing the dogs with armed escorts. The 1938 death of Migdal, a dog acquired from South Africa in 1936, aroused suspicions of foul play. An autopsy was ordered to ensure that Migdal had not been poisoned. Migdal was found to have died of “heart failure following a chill.”82

Yet even with the R.A.F. at their service, the Dobermans could not keep up with demand. Shortly after the second wave of the Revolt began in September of 1937, the Secretary of State for the Colonies called on Charles Tegart, former commander of the Calcutta Police, and David Petrie, Director of Intelligence for the Government of India (and subsequently MI5) to advise the Palestine Police on how to better address the emergency. Dedicating an entire chapter of their report to the dog section, Tegart and Petrie recognized the dogs’ high value in combatting Arab terror.83 “The trained instinct of these animals achieves results which are quite beyond the highest human intelligence.”84

In their praise of dog-tracking, Tegart and Petrie were relying not only on second-hand accounts or the dogs’ reputation but on a concrete investigation they had observed: in January 1938 renowned archeologist J.L. Starkey was murdered outside of Hebron by “Arab bandits” who after halting his vehicle asked him to alight and

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80 HORNE, A JOB WELL DONE, at 459.
81 Id. at 458.
82 M 335/10. The analyst added that “The Dog [sic] was employed on a long and arduous trail of some 25 kilos in the Acre Sub-District” and “was off colour on his return and on the sick list from the date of his return.”
83 Some have mistakenly attributed the introduction of Dobermans to Tegart. See Laleh Khalili, Policing and Prisons in the Middle East: Formations of Coercion, p. 15.
84 PRO CO 733/383/75742/77
then shot him in the back. Tegart and Petrie accompanied the investigation, in which police dogs were brought to the murder scene. The dogs led the detectives on a trail of over 20 mountainous kilometers over the mountains from Beit Jibrin to Kharass, sniffing out various locations of ammunition and firearms on their way and ultimately leading the police to the suspects.

In his Report, Tegart noted the high demand and short supply of Dobermans. He observed that in 1937, in Hebron alone there had been 50 requests for the assistance of the dogs, but only 10 were answered. As a result, many crimes went unsolved and the Hebron police despaired in making additional requests. “Consideration of time, economy in transport and escort, as well as the health of the dogs themselves” therefore required significantly increasing the number of dogs and—despite the R.A.F. assistance—geographically spreading them more evenly and establishing new units outside of Jerusalem as well. The Report recommended that there “be a complete and self-contained establishment in Nazareth” with the aim of eventually establishing separate dog units in Nablus and Haifa as well.

The need for dogs on the force was strongly linked by Tegart to the absence of public cooperation. “In every case where tracks are left, there is, with dogs, a good chance of success and without them a virtual certainty of failure, assistance from the public being rarely forthcoming” (emphasis added). We therefore see how forensic sciences came to replace eyewitness accounts, which were growing scarcer as public support for the colonial government waned. “There is nothing more likely to put an end to acts of sabotage and violence than tracking by dogs,” the report determined. Concluding their report, Tegart and Petrie noted: “The question of dogs we regard as of the utmost importance and urgency in the matter of restoring law and order.”

Shortly thereafter, the Palestine Government approached South African
authorities to request four additional Doberman Pinschers and two trained
dogmasters, at tremendous expenditure to the Government: the South African
officers’ salaries amounted to a total of £P.800 per annum, more than four times the
average cost of a Palestinian Policeman at that time.\(^{89}\) But the investment seemed
crucial: by 1937 police dogs became indispensible, complimenting—or perhaps even
substituting—the web of informants the police were so desperately trying to foster.

Though the demand for Dobermans persisted and increased, the Union of
South Africa could supply no more. After providing three dogs in 1933, two dogs in
1936 and four more in 1938, the Union declined further demands from Palestine.
Following Migdal’s death, Tegart recommended that two dogs and two bitches be
purchased,\(^{90}\) but the Union government responded it could spare no more. The
Secretary of State for the Colonies’ personal appeal to General Jan Smuts proved
futile and other alternatives were explored.\(^{91}\) With English bloodhounds “far too
delicate for Palestine conditions,”\(^{92}\) no other breed was found suitable to replace or
even join the Doberman.

Though Doberman Pinschers were used throughout Europe, trained tracking
dogs could only be obtained from Austria or Germany. This posed both practical and
political challenges: as a June 1936 memo to the Secretary of State pointed out, the
dogs “would have been trained in German.”\(^{93}\) More importantly, by 1938, requesting
the assistance of Nazi Germany was no trivial matter. Despite European disdain for
Nazi Germany over Sudentenland, officials in the Colonial Office felt that “It is not
necessarily out of the question that we should approach the German Government…”
on the matter of the Dobermans. Still, as one Colonial Office official pointed out,
there was a certain irony in the “rather curious position that we should be seeking the
aid of the German Government in acquiring animals designed to track down Arabs
who murder Jews.”\(^{94}\)

\(^{89}\) ISA M 335/10. Each dogmaster received a salary of over £P. 300 per annum; this at a time when
Palestine Police were making less than a quarter. In addition, they were paid a “disturbance allowance”
of £P. 60 a year.
\(^{90}\) CO 733/358/38.
\(^{91}\) CO 733/358/8 (Scan 0419)
\(^{92}\) CO 733/358/9 (Scan_0420.tif)
\(^{93}\) CO 733/358/9 (Scan_0420.tif).
\(^{94}\) CO 733/358/9 (Scan_0420.tif)
Desperate enough for assistance as the Strike or disturbances turned into full-blown Revolt, the Palestine Government ultimately approached a dog breeder in Hamburg in August 1938 and purchased two dogs and one bitch for a cost of Reichmark 475 each (the equivalent of £P. 40).95

D. Modern or Medieval? Dog Superstitions in the Service of the Civilizing Mission

“Murderers and robbers have been ere now convicted, and suffered death under such evidence, and men have said that the finger of God was in it. In thine own land, royal brother, and upon such an occasion, the matter was tried by a solemn duel betwixt the man and the dog, as appellant and defendant in a challenge of murder. The dog was victorious, the man was punished, and the crime was confessed.”

_The Talisman_, Sir Walter Scott

 Appropriately set in Crusader Jerusalem, in _The Talisman_ Sir Walter Scott dubbed the dog who identified the Marquis Conrade as the thief of the royal standard the “finger of God.” Dogs had long been believed to possess inexplicable, supernatural faculties. In the late nineteenth century these skills were increasingly interpreted in a less spiritual and more “scientific” light. Sir Arthur Conan Doyle’s tales of Sherlock Holmes are perhaps a case in point.

Yet even as dog tracking was gaining a more “scientific” status, colonial authorities continued to tap heavily into their more spiritual, psychological and mythical effects on local criminals. Despite his misgivings in 1927 about the “moral influence” the dogs had on native populations which led even the innocent to confess, by 1935 Spicer noted with satisfaction the “moral effect” that the dogs possessed over the “criminal classes in Palestine,” both primitive and sophisticated: “They are regarded with superstitious fear and dread by less educated offenders while the really intelligent criminal realises that they are possibly the most dangerous servants of public security that has yet been encountered.”96 Not understanding how exactly the dogs operated, “primitive” Palestinian criminals reportedly tried every trick, including the tying of rags around their feet.97 Victims soon began demanding that the dogs be

95 Chief Secretary to H. P. Downie, Esq. O.B.E. August 2, 1938, CO 733/358/15.
96 Horne, 459.
97 Horne, 458.
brought to crime scenes. As we have seen, to further enhance the dogs’ mystique among the superstitious native criminal classes, the Dobermans’ capabilities were enhanced with other forms of colonial surveillance and policing technology such as aircrafts. All these highlight the duality of the Doberman: it was simultaneously both modern and medieval, appealing to both scientific sensibilities of the European and the superstitions—real or attributed—of the native. Tapping into such superstitions was particularly ironic, given the British “civilising mission.”

In occupying a liminal space between superstition and science the British approach to dogs echoes a duality inherent in depictions of both Bedouin and Native-American trackers: paradoxically, all fluctuated between subhuman and superhuman, “Shaman” and “Sherlock.” Whereas nineteenth and early twentieth century literature treated American-Indian tracking skills as superstitious unscientific hullabaloo, later novels—especially post-World War II—began underscoring American-Indians’ strong awareness of nature and keen senses. American-Indians, like the Bedouins, possessed the ability to observe even the minutest interferences in nature in a way that modern city dwellers had lost. But whereas approaches towards the Bedouin and Indian trackers seem to have shifted over time, one finds both approaches towards the Doberman existing simultaneously.

In employing dogs to psychological ends, Palestine was not unique. In their socio-historical analysis of the relation between dogs and social control, Pucket and Lilly have explored dogs’ chequered past throughout human history: for centuries dogs were used by Europeans to subdue and intimidate native and slave populations. Some breeds, such as the Rhodesian Ridgebacks, were bred for precisely that purpose. Doberman Pinschers were also bred to discipline and punish, with some physical features such as their ears and tails artificially manipulated to enhance their intimidating appearance. It is therefore not surprising that in postcolonial literature,

100 See generally, Gina Macdonald and Andrew Macdonald, SHAMAN OR SHERLOCK? THE NATIVE AMERICAN DETECTIVE (2002).
102 Id.
the dog has come to symbolize European colonialism itself: in Ngugi Wa Thiong’o’s *A Grain of Wheat*, Koinandu (Lieutenant K.) rapes Dr. Lynd, representing the black man’s revenge against British colonialism, with the victim becoming the perpetrator.¹⁰³ In a later edition, Dr. Lynd’s rape is replaced by the killing of her pet dog.¹⁰⁴

In many South African communities dogs occupied an ambiguous position: they were valued for their supernatural abilities yet often considered the agents of misfortune and evil. Dogs were valued for their hunting and herding as well as their ability to keep watch at night. But ethnographic studies suggest that dog sniffing had deeper cultural meanings: anthropologist Monica Hunter has found in Pondoland that dogs were believed to drive away *uthikoloshe*, the best known of witches’ familiars. B.A. Marwick observed that in Swaziland, to deter misfortune, a dog entering a hut during childbirth was not removed until the baby had ridden its back. A.T. Bryant recounts a tradition in which Shaka’s “magic dog” settled a chieftaincy dispute by picking one of the claimants out of a parade. In isiXhosa, as in other languages, the verb “to smell” also represented the action of diviners in revealing the sources of witchcraft.¹⁰⁵

Though explicit about the dogs’ “moral effect,” British official documents are less overt in discussing their religious or cultural significance for Palestine’s inhabitants, Muslim or Jewish. Still, in the memoirs of some British policemen serving in Palestine it becomes evident that the British were well aware of the fact that “Muslim Arabs considered dogs to be unclean.”¹⁰⁶

Dogs’ precise status in Islam and the permissibility of dog-ownership has been contested for centuries, by some accounts dating back to the Prophet himself. Certain strands of Islam decreed that a container touched by a dog must be washed seven (and by some accounts five or three) times and then sprinkled with dust before used. According to some schools dogs endangered not only physical, but moral purity as well: in the Quran itself dogs were used as a metaphor for disbelievers. The passing of

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¹⁰³ Patrick Williams, Ngugi Wa Thiong’o, p. 71.
¹⁰⁴ Brendon Nicholls, Ngugi Wa Thiong’o, Gende, and the Ethics of Postcolonial Reading, p. 110.
¹⁰⁵ Canis Africanis.
¹⁰⁶ http://www.landofbrokenpromises.co.uk/palestine/howard.html
a dog was believed to negate the prayer or good deeds of a Muslim. Similarly, some believed that angels would not enter a house in which dogs dwelled. Muslims were commanded not to trade in dogs. Some stricter authorities mandated slaughtering all dogs not employed for herding, hunting or protection. This debate had practical ramifications: it would determine whether these traditions held currency or had become outdated and whether one must distinguish between urban and rural, wild and domesticated, ill and healthy dogs.

It would be overly simplistic and reductive to focus exclusively on Islamic traditions that rendered dogs impure. Particularly in Arabic poetry, dogs are often depicted as the embodiment of noble virtues such as bravery, self-sacrifice and loyalty. Rumi (13th century) for example, opined that dogs had an intimate knowledge of the Almighty's love for his creatures. Muhammad Ibn Halaf Ibn Marzuban (Baghdad, 13th Century) wrote a book entitled “The Superiority of Dogs Over Many of Those Who Wear Clothes” (فضل الكلاب على كثير ممن لبس الثياب Fadil al-Kilab Alla Kathirin Mimman Labisa a-Thiyab) extolling the many virtues of the canine through verse and rhyme. Still, by and large, in the 1930s Middle East dog ownership was broadly frowned upon, reserved for Bedouins and Westernized elites.

Despite unfavorable treatment in the Talmud, dogs played a less contentious role in Jewish tradition. The Talmud recounts the unfortunate tale of a dog’s bark who led a pregnant woman to abort. But though the Talmud decreed that one should not own a “mad” or “evil” dog, it contained no categorical prohibition concerning dog

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107 See generally, Khaled Abou el Fadl, “Dogs in the Islamic Tradition and Nature.”
108 Id.
109 It would be overly simplistic and reductive to focus only on Islamic traditions that rendered dogs impure. Dogs were seen by some Arab poets to embody noble virtues such as bravery, self-sacrifice and loyalty. Al Rumi, for example, opined that dogs had an intimate knowledge of the Almighty's love for his creatures. Muhammad Ibn Halaf Ibn Marzuban (Baghdad, 13th Century) wrote a book entitled "The Superiority of Dogs Over Many of Those Who Wear Clothes" (فضل الكلاب على كثير ممن لبس الثياب Fadil al-Kilab Alla Kathirin Mimman Labisa al-Thiyab) extolling the many virtues of the canine through verse and rhyme.
110 Shabbat, 63B.
ownership. The Shulhan Aruch’s interpretation deemed the prohibition as pertaining only to dogs that intimidated or placed others at risk. Still, in Europe Jews were widely believed to suffer from irrational fear of dogs.

By the twentieth century, however, Jewish attitudes towards dogs were undergoing a conscious rebranding, at least in some circles. Through a stronger bond with land and nature—including animals—the Zionist movement sought to forge a different Jewish identity, with dogs playing a key role in the plan. As early as 1915, Zionist leader Arthur Ruppin contacted police dog breeders in Grunheide, Germany, to negotiate the purchase of a number of specially trained Doberman Pinschers to assist the Shomer in securing Jewish settlements. Ruppin continued his involvement in importing dogs and dog experts to Palestine through the 1930s: in 1934 he approached world-renowned dog-expert Rudolfine Menzel to see whether her skills could be harnessed for the Zionist cause.

Menzel, an Austrian Jew, held three doctoral degrees from the University of Vienna: in psychology, in biology and in bio-chemistry. In the 1920s she moved from Vienna to Linz, where she founded a small research institute for dog training and research, focusing on the hereditary traits of dogs and dog training for policing and military purposes. In the late 1920s Menzel made significant advances in exploring the chemical foundations for canines’ ability to distinguish between unique human scents, a finding of clear significance for policing purposes. She convened a number of international conferences in Linz, one of which focused on best practices in dog tracking.

Menzel served as an advisor to both the German and Austrian governments on dog training. Following her correspondence with Ivan Pavlov, Menzel was planning to set off to Leningrad to take part in Pavlov’s groundbreaking psychological research when approached by Ruppin. Ruppin promised to assist Menzel in establishing a dog-training institute in Palestine similar to the one she had founded in Linz. Menzel accepted his invitation and visited Palestine for the first time in 1934. From then on,

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111 Bava Kama, 79B.
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113 The so-called “Linz Resolutions.” CZA 129/132.
the Menzels travelled to Palestine annually, and by some accounts she began training her dogs in Austria to obey commands in Hebrew.\textsuperscript{114} The Menzels finally made Palestine their home in 1938, following the Anschluß.\textsuperscript{115} Upon their arrival they founded the \textit{Palestine Canine Research Institute} in Kirjath Motzkin (near Haifa). Publishing Hebrew and English guides on dog training as well as children’s books, Menzel raised public awareness in Palestine to canine training and skills in herding, guarding and tracking.

The relation between dogs and the Zionist agenda was made explicit in Menzel’s writings. In the foreword to her 1938 book “Dog Education and Training” Menzel drew on stereotypes concerning the diaspora Jew’s irrational fear of dogs to explain the key role of dog-training in Zionist ambitions to forge the “New Jew”:

\begin{quote}
We [the Jews] are predominantly urban dwellers and the descendants of urban dwellers. The blood that runs in our veins is that of generations that spent their lives in urban suffocation and of generations before them who never left the ghetto alleyways. They were far from nature, far from the land, far from animals. All animals were alien to them, the dog being the greatest stranger. The dog belonged to the world of the gentiles. He served as the oppressors’ companion and accomplice; at the landlord’s command he would attack and chase away the Jewish peddler; the dog was the companion of rulers who determined the Jews’ fate, good or ill.

Yet before the ghetto dwellers there were other generations of free peasants, men of agriculture and herding, of war and of hunting. In those days our ancestors lived in harmony with nature and their lives reflected nature. In those times the dog was a companion who assisted our people. Our national revival movement is erecting bridges to antiquity, skipping over many generations and linking us more tightly with natural life forgotten for centuries. In our treatment of dogs we must also pass over many generations and strengthen our ties to ancient traditions of a nation of shepherds and farmers in the ancient land of Israel.

The dog is like no other species. All species cling to their own. The dog alone has transcended his species to join man and become his companion and helper. Let him be a companion and assistant in the rebuilding of our land.
\end{quote}

For Zionists, irrational fear of dogs was associated with the diaspora Jew’s general cowardice and detachment from nature, which Zionism aimed to obliterate.

\textsuperscript{114} http://www.archives.mod.gov.il/pages/Exhibitions/animals/dogs.asp
\textsuperscript{115} CZA 129/132 p. 19.
Therefore, in Palestine Zionists embraced dogs, which symbolized European modernity. Similar rebranding trends were evident among Islamic nations seeking to Westernize as well: Mustafa Kemal Atatürk’s beloved dog Fox symbolized modern Turkey’s efforts to distance itself from the Ottoman Empire’s Islamic past. In a famous photograph—staged to appear reminiscent of the portraits of European sovereigns—Atatürk posed surrounded by dogs, a practice that would have appeared repugnant to his Sultanic predecessors.

In addition to re-establishing Jewish bonds with nature, Menzel regarded dog training as a way of strengthening bonds between the Zionist movement and His Majesty's Government. In a 1942 memo she noted how sports brought nations together. In particular, she noted, “the good relations between the English and the Arabs are strengthened by English interest in Arab horses and by Arab expertise in horse breeding. We may tilt this unfavorable balance by successful and model use of good dogs, by breeding such dogs and by establishing successful dog sporting in Palestine.”

During World War II Menzel did precisely that: she provided Allied Forces with dozens of mine-detecting dogs, mainly Boxers, the most reliable technology for such purposes at that time. She also trained anti-tank dogs: strapped with explosives, the dogs would lay under enemy tanks before blowing them up. In supplying the Allies with trained canines Menzel acted on promises by British officials that the dogs she trained would not be used later against Jews. This was a promise the British kept until the very end of their mandate in Palestine: when in 1945 full-blown hostilities between the British and Zionist movements resumed, the British used European rather than locally trained dogs to discover ammunition.

Menzel’s expertise made her a highly valuable asset not only as an advisor on the use of dogs, but later also in advising the Hagannah on dog-tracking evasion: understanding British dog-tracking techniques, Menzel knew their weaknesses all too well. When in 1942 a number of Jewish women in the Jordan Valley complained of sexual abuse by a local Arab farmer, the Hagannah consulted Menzel on how to avoid

116 CZA S53/1525-1530.
117 Id. By her own account Menzel obtained the permission of Moshe Sharet to do so.
dog tracking during their “operation” to teach the individual a lesson. Accompanied by a doctor, they set out one night and surgically castrated the farmer. Acting on Menzel's advice, they escaped by walking on the train tracks, knowing that their prints would be untraceable due to the various oil scents.¹¹⁸

E. Does the Nose Know? Scientific Knowledge and the Admissibility of Dog Tracking Evidence

Though perhaps useful in mine-detection and criminal intimidation, were the Dobermans’ tracking skills reliable enough to be admissible in court?¹¹⁹ Recent analysis, most notably by Andrew Taslitz, raises considerable doubts. In 1990, Taslitz went so far as dubbing dog-scent lineups an “unscientific myth.”¹²⁰

I. Dog Tracking in South Africa

Debates over evidentiary admissibility of dog identification have a long pedigree, dating back to the first years of their use. Despite the police’s attempts to underscore the scientific nature of canine training and tracking, the admissibility of dog tracking was far from straightforward. In South Africa, lower courts initially admitted dog tracking as evidence of identity, accepting the Solicitor General’s argument that the dogmasters were experts who had “studied as a science the movements and habits of police dogs” (emphasis added, B.B.) rendering the dogs “mere instruments.”¹²¹ In their testimony, dogmasters underscored the scientific nature of their tracking, demonstrating inter-subject, temporal and spatial consistency.¹²²

¹¹⁸ Haganah Archive, 34/289.
¹²⁰ Id. at 17.
¹²¹ See for example R. v. Kotcho.
¹²² “I took the accused, another native, and Willie Zendlova with me. I placed the three of them 30 yards from the trail. They had to sit down 30 yards apart. I again put the bitch on the scent of the bare-foot spoors. The birth then went off to the three natives. She smelled first the other two boys. When she got to the accused she put her paws on him and commenced barking, indicating that he was the man who made the spoor. I then took her off and closed her eyes. I changed the three boys about. I then put her on the scent of the bare-foot spoors, and after that she again picked the accused out and behaved
By 1920, however, other voices prevailed. Chief Justice Innes ruled that such evidence was unscientific, unreliable, and therefore inadmissible.\(^{123}\) Innes explained that in some cases “inferences may be quite properly drawn from the behaviour of animals.” This was true of dogs as well: where a dog had failed to bark upon the entrance of an intruder, one could properly infer that the intruder was someone familiar to the dog. This was not, however, the case when prosecutors sought to introduce tracking and identification of an individual perpetrator, previously unknown to the dog: “We have no scientific or accurate knowledge as to the faculty by which dogs of certain breeds are said to be able to follow the scent of one human being, rejecting the scent of all others.” Properly analyzed, Innes ruled, dog tracking belonged in the “region of conjecture and uncertainty” rather than science.

In drawing the distinction between permissible and impermissible inferences from canine behavior, Innes distinguished between behavior that was “instinctive and invariable” and skills for which animals “must be carefully trained before they can be relied upon.” Whereas the former were founded upon the “instinct of self-preservation,” the latter involved “processes closely akin to reasoning.” As such, whereas the former were reliable enough to be admissible, the latter were not. With reason came risks of error and insincerity. Therefore, dog tracking required a proper scientific foundation to be laid as a precondition for admission at trial. At least in 1920, dog tracking lacked such scientific grounding.

Additionally, Innes ruled, the dogs’ “testimony” constituted inadmissible hearsay, with all its concomitant dangers: first, the dogs’ “assertions” when giving tongue, laying their paws, barking at an individual at an identification parade were prone to “misunderstanding between the animal and his keeper.” Second, the out-of-court dog-declarants could not be properly cross-examined. Other common law

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\(^{123}\) See *R. v. Trupedo*, 1920 SALR (AD) 58.
jurisdictions such as Canada followed similar logic when excluding dog-tracking evidence.\textsuperscript{124}

Implicit in Innes’s opinion was a certain ambiguity concerning the evidentiary status of dog-tracking: were dogs akin to witnesses, testifying about information collected through their senses—in which case they should be subject to cross-examination as a precondition to the admissibility of their testimony? Or were they instead sophisticated olfactory machines operated by experts who must be capable of explaining the scientific principles upon which they operated and their error rates?

II. Dog Tracking as Evidence in North America and England

In the United States at that time, scholars and jurisdictions diverged in their approach to dog-tracking evidence: while some believed such evidence presented no problem whatsoever, others would have had even the evidence of bloodhounds excluded on the theory that the “the use of bloodhounds properly belongs to the days of slavery, and of the bloody criminal code of the Dark Ages.”\textsuperscript{125} At minimum, opponents argued, such evidence “begets in the minds of many people a superstitious awe, and they see in such an exhibition a direct interposition of Divine Providence in aid of human justice.”\textsuperscript{126} Juries, they contended, must not be exposed to such damning yet questionable evidence. A middle position insisted that the dog’s breed, lineage and individual credentials be firmly established as a prerequisite to admissibility. Some would restrict admissibility to bloodhounds only, provided that lineage and training had been proved.\textsuperscript{127}

When the first cases concerning the admissibility of dog tracking evidence reached courts in South Africa, Canada and the United States, English courts had not yet had the opportunity to address the matter; dog-tracking had only been adopted by

\textsuperscript{124} See for example R. v. White (British Columbia, 1926, 5 D.L.R. 2). This trend began changing only during the 1960s and 1970s, when Canadian and New Zealand courts began admitting canine tracking evidence.

\textsuperscript{125} Sumner Kenner, “The Competency of Bloodhound Evidence,” 81 Cent. L.J. 418 (1915).

\textsuperscript{126} Id.

Scotland Yard in 1938 and even then, prosecutors did not seek to admit such evidence in judicial proceedings. In fact, English courts squarely addressed matter only in 1995(!), noting “There is no authority hitherto in English law as to the admissibility of evidence concerning a tracker dog.”  

Like the polygraph, dogs may have been used to investigate but not to prove guilt. When in 1995 Lord Taylor finally rendered dog tracking admissible, he insisted that two safeguards be met before such evidence is introduced in court: first, that a “proper foundation… be laid by detailed evidence establishing the reliability of the dog in question.” Second, that the jury be alerted “to the care that they need to take and to look with circumspection at the evidence of tracker dogs, having regard to the fact that the dog may not always be reliable and cannot be cross-examined.”

Despite the scientific shortcomings of the dog-tracking methods, South African tracking dogs quickly became a hot commodity throughout the Empire. British officials in neighboring Batusoland, Swaziland and Bethuanaland permitted cross-border tracking by SAP dogs and sought out their assistance in investigating unsolved cases. Between 1918 and 1939, the SAP was approached by police forces in Southern Rhodesia, Kenya, Palestine, Burma, Australia and India with requests to train handlers and supply dogs. However, inability to complete the demanding dogmaster training (in some cases due to racial restrictions—see below) and the prohibitive cost of £80 meant that foreign police forces were often unable to acquire these wonder detectives.

III. Dog Tracking as Evidence in Palestine

In Palestine, even dog enthusiasts such as Rudolfine Menzel harbored a degree of skepticism regarding dog-tracking’s “scientific foundation” (*wissenschaftliche Fundierung*). Addressing *Haganah* staff in 1939, Menzel observed that properly defined, dog tracking could not yet be considered a “science.” In her 1938 book on

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128 *R. v. Pieterson and Holloway* [1995] 2 Cr. App. Rep. 11. Dogs had assisted the police before then in patrol and guarding duties. Bloodhounds were reportedly employed in attempts to catch Jack the Ripper. But tracking evidence had never been presented in court.
129 *Id.*
130 *Canis Africanis*, 205.
131 *Haganah Archive*, 34/289.
dog training Menzel observed that dogs typically follow the most recent—and hence strongest—tracks they are able to detect. It was impossible at that point, she observed, for a dog to sniff an object and then lead its handler to the criminal. Successful tracking, she explained, relied first and foremost upon detecting the right tracks at the crime scene. It was not uncommon for a dog to follow tracks for miles, finally leading to the home of a policeman who had investigated the crime scene. Menzel wrote that only once had she observed tracking that had actually led to the criminal. More common were cases where the dog led to train-tracks or a road where the criminal had embarked upon a vehicle. Properly used, tracking dogs could lead to other clues that could, in turn, help police find the culprit. They could not, however, serve as independent evidence.

A number of local incidents in Palestine provided additional, at least anecdotal grounds for skepticism of the Doberman’s accuracy: in one robbery case, the Dobermans led the police to the house of an old blind man, who clearly could not have committed the crime. Critics further alleged that much like humans, dogs always picked out someone at an identification parade even if the perpetrator was not present. Given their lack of verbal skills, the dogs’ precise reasons for doing so remained unknown. Menzel’s own experience with Palestine’s police dogs provided additional reasons for skepticism. In at least two instances where Menzel arrived at murder scenes (often hours before the Palestine Police), her tracking dogs Blitzie and Maggie followed entirely different trails than the police’s Dobermans, suggesting that training and the handler had much to do with the path taken.

Yet neither the novelty of the method nor skepticism concerning its reliability led to judicial reservations about admitting dog tracking and identification evidence in Palestine. General acceptance by the scientific community was not considered a necessary prerequisite for admissibility. Dog identifications were routinely part of the prosecution’s evidence. “Dog parades” were deemed not only admissible; with few exceptions, courts treated their evidence as iron-clad. Two dogs could even

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132 Menzel, 135.
134 Id.
135 CZA 129/67.
136 Compare Frye.
corroborate each other’s identifications. Houses were demolished and some defendants were sent to the gallows based on such identifications alone.  

A notable exception, that drew international attention and outrage in Westminster, was a 1937 murder investigation held in Safad. The magistrate decided *not* to bind the accused over for trial despite the fact that a police dog picked him out of two separate identification parades based on the smell of a blood pool and a cigarette packet found at the crime scene. Furthermore, the tracking evidence was corroborated by the testimony of the victim’s brother who testified that the defendant had threatened the victim shortly beforehand. The police and Attorney General nevertheless decided not to press the matter further and the Attorney General decided not to exercise his authority to commit the defendant for trial before the district court without magistrate approval. Colonel Wedgwood brought the matter to the attention of Parliament when questioning Secretary of State for the Colonies Ormsby-Gore, asking “what further steps are to be taken to put an end to the terrorism in Palestine which prevents convictions being obtained by the police?” The question prompted Ormsby-Gore to take special interest in the case, ordering the High Commissioner to submit a report on the matter.  

Courts admitted dog identifications even when the police had not adhered to handling and tracking protocols. In one such case dog handler Parker admitted that the identification parade was conducted at the crime scene raising the possibility that the dogs—much like the tracker in the Arlosoroff investigation—had acted upon tracks left after the fact. Though the Court of Criminal Assize rendered this breach of protocol “extreme negligence,” it admitted the evidence and convicted the defendants of murder. They were sentenced to 10 and 15 years imprisonment.  

Furthermore, those testifying and interpreting the dogs’ identifications in court were not always their handlers. Given the high demand for their skills, Parker and Pringle—Palestine’s only certified dog masters—were stretched thin and were

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138 ISA M 276/22.
139 CrimA 8/36 (IMG_1561)
140 IMG_1553.
typically unavailable to testify. Instead, other policemen who took part in the investigation often offered evidence about the dogs' behavior at the defendant's home or during a line-up: whether they pounced on the defendant, barked at him or gave tongue. Given their lack of expertise, these policemen could not confirm the dogs' lineage, training or reliability; nor could they testify concerning adherence to dog-handling protocols. They could merely attest to the fact that generic lineup requirements had been met. This also rendered the rank and file policemen's cross-examination useless. Arguably, even Parker and Pringle's testimony would have been imperfect: as the Supreme Court of South Africa had ruled in 1920, it could have been excluded as inadmissible hearsay. It was perhaps the unavailability of cross-examination or any real possibility to scrutinize the Doberman's techniques that made their evidence so remarkable. Unlike the Bedouin trackers, the scent the dogs followed could not be seen and their methods could not be undermined or falsified through cross-examination.

Conclusion

In 1989, the scientific journal *The Lancet* published a letter to the editors written by two doctors from King's College's dermatology department. The doctors described the case of a woman suffering from malignant melanoma who first became aware of her cancerous growth when her Border Collie Doberman would not stop sniffing it, while ignoring other moles of similar appearance. “This ritual culminated in the dog trying to bite off the lesion when the patient wore shorts” which prompted her to seek medical attention. The two doctors hypothesized that malignant tumors such as melanoma emit unique odors that make them detectable to dogs and their “well-developed rhinencephalon” long before doctors could diagnose them. They flagged the use of “animals with highly developed sensory modalities in cancer diagnosis” as worthy of further research, thus prompting a series of experiments and attempts to replicate canine olfaction through mechanical noses.

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141 See for example, ISA M 276/22
142 The dog’s techniques would of course be of little importance or controversy if the accused later confessed, as they did in some cases. Spicer reports one case in which a man accused of attempted murder, after having been picked out in an identification parade said “Finish; good enough; the dog is not a liar.” But this was not typically the case. See Spicer, at 249.
143 Dr. Hywell Williams and Dr. Andres Pembroke, “Sniffer Dogs in the Melanoma Clinic?” *The Lancet*, April 1, 1989 at 734.
Over the centuries, human appreciation for canine olfactory capacities and their practical uses has progressed in unexpected directions. Like the case reported in *The Lancet*, discoveries are often accidental and prompted by anecdotal evidence. Still, what distinguishes science from conjecture is the ability to fully articulate a causal relation between variables. This is true not only in the laboratory and peer reviewed journal, but in the courtroom as well.

Yet when “dog-tracking science” was adopted by courts in 1930s Palestine there was little actual “science” to back hypotheses concerning dog-tracking abilities. The dogs’ methods and error percentages were still unknown. Eight decades later, they largely remain so. But though dog evidence may have been notoriously unreliable, it addressed a practical gap in colonial policing and adjudication.

Despite shaky scientific credentials, dog tracking became a central feature of policing and prosecution in Palestine. Though experts in the field were well aware of its shortcomings and lack of proper scientific foundations, at least in Palestine, these deficiencies were rarely addressed in judicial proceedings. Along with other forensic sciences and pseudo-sciences, dog tracking represented a shift in colonial police investigation, from eyewitnesses to experts. As I have argued in this paper, this shift had a number of contributing factors, among which scientific merit and general acceptance in the scientific community were marginal or even irrelevant. Far more central in the development and adoption of new forms of proof were considerations such as public unrest, dwindling public cooperation with police investigations, and the need for alternatives to eyewitness accounts. Though local attitudes may not have been the decisive factor in the initial adoption of dog-tracking, the dogs’ “moral effect”—especially among Muslims—was not an unfavorable side effect; local superstitions played a key role in the dogs’ “successes.” The Doberman’s principal power perhaps rested not in their true tracking abilities; their authority was in the eyes of their suspect beholder. Colonial conditions provided both the impetus and the opportunity to experiment with new forensic technologies. If necessity is said to be the mother of innovation, the exigencies of colonial rule were precisely such a matriarch.