

Cartographies of Conquest: The Convergence of Military Logistics and Aesthetic Representation in the Colonization of the Algerian Sahara (Mid-19th to Mid-20th Century)

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Abstract: French colonization of the Algerian Sahara fused military, aesthetic, and literary means to impose imperial control. Traditional histories often dismissed it as secondary or merely scattered clashes. This study demonstrated that it formed a unified, totalizing project. The research deconstructed the “textual attitude” that converted the Sahara from a sovereign territory into a colonial domain. It examined how conquest violence was concealed and justified through intertwined mechanisms of knowledge, art, and law. Military logistics provided instrumental mapping, artistic works offered an aesthetic justification, and state legalism enabled a narrative of “peaceful penetration” that hid occupation’s brutality. Employing a multidisciplinary approach integrating archival analysis, postcolonial criticism, and political theory, the study analyzed sources from the mid-19th to mid-20th century. Key materials included General Cavaignac’s surveys, Henri Duveyrier’s Saint-Simonian ethnographies, Eugène Fromentin’s romantic travelogue *Un été dans le Sahara*, and administrative frameworks of the Organisation Commune des Régions Sahariennes. Findings showed a division of roles: Cavaignac gridded the desert for domination; Fromentin erased indigenous presence for an aesthetic alibi; Duveyrier’s utopianism contributed to the failed Flatters mission and stricter rule. These discourses converged in the 20th century to legally detach the Sahara from northern Algeria, enable resource extraction, and cement a persistent “desert imaginary” contested in postcolonial literature.

Keywords: Saharan Colonization, Colonial Epistemology, Military Expansionism, Aesthetic Representation.

Introduction

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The French conquest of Algeria, initiated by the seizure of Algiers in 1830, is frequently distilled in public memory into a chronology of military engagements, a history written in gunpowder and the rattle of sabers. Yet, beneath the visible violence of the infantry lay a quieter, pervasive battlefield: the contest for knowledge. To the imperial imagination, the Algerian Sahara presented a formidable paradox. It was at once the "Great Void," a logistical abyss that swallowed columns of soldiers and sheltered resistance, and a "siren call," promising exoticism and unexploited wealth.

To domesticate this frontier, France deployed a dual apparatus that extended well beyond the rifle: the soldier was sent to measure the land, the artist to define its aesthetic, and the scholar to classify its inhabitants. As Chatra argues, French strategy was not merely reactive but deeply calculated, relying on a "comprehensive exploitation of all anthropological, natural, and economic data" to subjugate the territory. This early "textual appropriation" established the infrastructure for the policies of segregation and extraction that would characterize French rule for over a century.

Edward Said (1935–2003), the influential postcolonial theorist, famously argued that such geographical entities are not inert facts of nature but are "man-made" through traditions of thought, imagery, and vocabulary. The Orient, and by extension the Sahara, was not merely discovered; it was "Orientalized," or submitted to European power through representation.

This article addresses the central research problem: How did the symbiotic convergence of military logistics, aesthetic representation, and legal-institutional discourses enable the French colonial project to transform the Algerian Sahara from a sovereign territory into a controlled domain of domination and resource extraction between the mid-19th and mid-20th centuries, while systematically concealing the underlying violence through a narrative of "peaceful penetration" and "civilizing mission"? By broadening the scope to include figures like Henri Duveyrier and Isabelle Eberhardt, and weaving together military reports, painterly prose, and 20th-century legal texts, we reveal how the "hard" intelligence of the army and the "soft" power of the arts coalesced to transform the Sahara from a sovereign land into a French possession.

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Concerning the methodology, this study draws on French colonial archives (military reports, publications of the Société Historique Algérienne), travelogues, ethnographic texts, and Arabic secondary sources. Limitations include the inherent colonial bias of primary documents and restricted access to some Algerian archives. Postcolonial theory is applied through close textual analysis. The key figures (Cavaignac, Duveyrier, Fromentin, and Eberhardt) were selected because they represent distinct but interconnected dimensions of the colonial apparatus: military logistics, utopian ethnography, aesthetic representation, and hybrid identity.

I. The Epistemic Battlefield

Institutions of Conquest Before the Sahara could be physically occupied, it had to be intellectually encircled. The penetration of the south was driven by an urgent need to map the "unknown" to secure the coastal conquest. This was not a haphazard endeavor of wandering adventurers, but a state-sponsored enterprise. Samira Negadi elucidates how the colonial administration mobilized "archaeologists, historians, geologists, and topographers" to dissect Algeria.¹ Negadi posits that culture became "the main scene of the incarnation of political and social aspirations," noting that institutions like the Société Historique Algérienne (founded in 1856) were not neutral scholarly bodies but instruments of "cultural control within the colonial furnace."

This intellectual siege aligns with Said's definition of Orientalism as a "corporate institution for dealing with the Orient... authorizing views of it, describing it, by teaching it, settling it, ruling over it."² The French military did not just seek to defeat the Saharan tribes; they sought to taxonomize them. Prochaska reinforces this, highlighting how the colonial era was defined by the "creation of an infrastructure", roads, forts, and secure zones, that allowed European observers to enter and catalogue the territory.³

1 نقادي سميرة، "الكتابات الفرنسية عن الصحراء الجزائرية من خلال المجلة الإفريقية: نماذج مختارة"، *مجلة جامعة سرت للعلوم الإنسانية*، مج 15، ع 1، 2025، ص 69.

2 Edward W. Said, *Orientalism* (New York: Pantheon Books, 1978), 3–9.

3 D. Prochaska, *Making Algeria French: Colonialism in Bône, 1870-1920* (Cambridge: Cambridge University Press, 1990), 9.

Crucially, Douida emphasizes that this epistemic conquest was driven by a geopolitical imperative: to sever the Sahara from the North. The administration viewed the Sahara not merely as a hinterland but as a strategic corridor to "link its colonies in West Africa" and create a contiguous empire.⁴ This required a "policy of separation," treating the Sahara as a military zone governed by distinct laws. The map was the first weapon drawn; the census was the second.

II. The Logistics of Control: Cavaignac and Instrumental Orientalism

General Louis-Eugène Cavaignac exemplifies the utilitarian arm of this conquest. Long before his political ascent in 1848, Cavaignac was a career officer hardened by fifteen years in the Tlemcen garrison. In 1847, he was tasked with a critical reconnaissance mission toward the Touat oases. As Talbi and Haricha reveal, this mission was not solely military; it was commissioned jointly with the Algiers Chamber of Commerce.⁵ Cavaignac acted as a scout for capital, mapping trade routes to redirect trans-Saharan commerce away from traditional hubs and toward French markets.

Cavaignac's correspondence is devoid of romantic affectation. These are the writings of a man measuring water rations and calculating marching speeds, an "anthropological audit" of the populations encountered. Talbi and Haricha note that Cavaignac meticulously categorized the populace, distinguishing between sedentary "Berbers," whom he viewed as the region's original agriculturalists, and nomadic "Arabs," characterized as pastoralists.⁶ This taxonomy was tactical rather than academic, providing the raw data for a policy of "divide and rule." As detailed by Hassani and Achour, such classifications allowed authorities in the M'zab Valley

4دويده نفيسة. استراتيجية الاستعمار الفرنسي في الصحراء الجزائرية (دراسة تاريخية في الخلفيات والأهداف). مجلة الدراسات، جامعة الأغواط، 2022، ص 209.

5طالب علي وحريشة جمال. الصحراء الجزائرية في كتابات البعثات الفرنسية: بعثة لويس أوجين كافينياك (1847-1848) أنموذجا. مجلة النشر لدراسات التاريخ، ع 2، 2023، ص 17.

6طالب علي وحريشة جمال، المرجع السابق، ص 9.

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to exploit tribal distinctions to "dismantle and destabilize the social fabric."⁷

The journey was arduous, stripping away any Orientalist mystique. Cavaignac recorded temperatures hitting 51°C in the Angad desert and noted regions where rain was absent for six months.⁸ His gaze remained fixed on utility. When observing the Tuareg, he did not see the "noble savages" of European fantasy, but a logistical threat. As quoted by Talbi and Haricha, he warned his superiors: "If we manage to tighten our grip on the Bedouins... those vast regions separate us from them... moving through the desert at a speed exceeding our own."⁹ Cavaignac's maps encoded military strategy by marking wells, routes, and potential threats, transforming abstract space into controllable territory.

This is the voice of Instrumental Orientalism: knowledge produced for the specific purpose of domination. However, as Benjamin Claude Brower argues, this instrumentalism often masked a chaotic reality. Brower challenges the binary of "oppressor and resistor," highlighting the "multiple logic of violence" in the Sahara.¹⁰ While Cavaignac sought to impose order, the reality involved accommodation with local "political entrepreneurs" and the exploitation of internal cleavages. His maps were drawn to ensure the next column of French soldiers would know where the wells were, and which tribes might poison them.

III. The Shift from Utopia to Tragedy

Duveyrier and the Flatters Mission If Cavaignac represented the brute efficiency of the scout, Henri Duveyrier (1840–1892), a French explorer and ethnographer and disciple of the Saint-Simonian movement, represented the tragic idealism of the scientific explorer. As detailed by Chatra, Duveyrier, a disciple of the Saint-Simonian movement, embarked on expeditions between

7حساني موسى وعاشور محفوظ. البعثات الفرنسية إلى الصحراء الجزائرية: بين الاستشراق والاستعمار – حالة وادي الميزاب. الدراسات التاريخية، مج 12، ع 1، 2024، ص 174.

8 F. Jacquot, *Expédition du Général Cavaignac dans le Sahara Algérien en Avril et Mai 1847*, Gide et J. Baudry, 1849, p.374

9طالبي علي وحريشة جمال. المرجع السابق، ص 19.

10 B. C. Brower, *A Desert Named Peace: The Violence of France's Empire in the Algerian Sahara, 1844-1902*, Columbia University Press, 2011, p.173.

1857 and 1863, immersing himself in Tuareg language and custom.¹¹ Unlike Cavaignac, who viewed the desert through a gunsight, Duveyrier sought a utopian "universal association" between East and West. His seminal work, *Les Touareg du Nord* (1864), attempted to humanize the desert dwellers.

Yet, the colonial machine had little use for utopias unless they served expansion. Chatra notes that Duveyrier's meticulous mapping of the routes from Ghadames to Ghat was co-opted by the military. His "scientific" data became the blueprint for the ill-fated Flatters Mission of 1881. Colonel Flatters, relying on the illusion of "pacified" tribes created by previous ethnographies, marched into the Hoggar only to be massacred.

This event marked a pivotal shift in the colonial psyche. As Brower argues, the massacre shattered the Saint-Simonian dream of peaceful union. The Tuareg were recast from "noble warriors" to "treacherous savages" who understood only force.¹² The knowledge produced by Duveyrier, intended to build bridges, was weaponized to build railroads and forts. This illustrates the central tragedy of colonial epistemology: regardless of the scholar's intent, the institutional apparatus inevitably converts knowledge into a tool of subjugation. Duveyrier's work, though utopian in intent, was absorbed into the larger knowledge-production system initiated by Cavaignac, demonstrating the institutional co-optation central to colonial epistemology.

IV. The Violence of "Peace": Operationalizing Knowledge

The intelligence gathered by Cavaignac and Duveyrier was quickly operationalized into brutal violence. Brower demonstrates that while official discourse promoted *pénétration pacifique*, the reality was marked by "widespread and intense violence."¹³ The illusion of a "bloodless triumph" in 1844 evaporated as local defense forces mutinied.

Subsequent military campaigns were characterized by excess. Brower chronicles the tactics used by General Herbillon at Zaatcha in 1849 and the suppression of the Laghouat rebellion in 1852, leaving these oases as "little more than a mass of ruins and

11 اشترة ، مرجع سابق ، ص 102

12 Brower, 2011, p. 4

13 Brower, op. cit.p. 3

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corpses."¹⁴ This violence was justified by the Orientalist trope, noted by Said, that the Oriental respects only force.

This violence was structural rather than incidental. Douida points out that the "scorched earth" policy was a standard tool of conquest. The destruction of food supplies, felling of date palms, and starvation of populations were calculated strategies derived from the very environmental data Cavaignac had collected.¹⁵ The specific "knowledge" of the desert's fragility, its reliance on specific wells and harvest cycles, became a weapon to destroy its inhabitants. Cavaignac's notes on the poverty of the western oases were effectively target lists for economic warfare.

V. The Screen of Beauty

Fromentin and Aesthetic Orientalism If Cavaignac's reports provided the blueprint for the prison, Eugène Fromentin (1820–1876), the French Romantic painter and author, painted the murals to hide the bars. Traveling to the Sahara in 1846, 1848, and 1852, Fromentin approached the desert not with a surveyor's transit, but with an easel. His major works, *Un été dans le Sahara* and *Une année dans le Sahel*, construct the desert through the lens of the sublime, vast, silent, and terrifyingly beautiful. His paintings and prose often froze indigenous figures into timeless, picturesque tableaux, erasing their contemporary agency and resistance.

However, Fromentin's ability to set up his easel was contingent upon the very pacification Cavaignac was orchestrating. Prochaska argues that the colonial era was defined by the creation of an infrastructure that allowed European observation.¹⁶ Fromentin's art functioned as a "screen of beauty," masking the violence of this infrastructure. While Cavaignac reported on inhabitants of Sfisifa resisting with "stones on the gates... blocking them with rifles," Fromentin was freezing the indigenous population into a timeless, picturesque tableau.¹⁷

14 Ibid

15 دويدة نفيسة. المرجع السابق ، ص 4.

16 Prochaska, *Making Algeria French*, 9

17 طالبي علي وحريشة جمال. المرجع السابق ، ص 8.

This aestheticization aligns with Said's concept of the "textual attitude," where reality is forced to fit the book.¹⁸ Fromentin's prose often prefers the "schematic authority of a text to the disorientations of direct encounters with the human." By transmuting the harsh realities of the desert, the heat Cavaignac measured, the poverty exacerbated by colonial policies, into "breathtaking scenery," Fromentin engaged in Aesthetic Orientalism. He generated the "cultural capital" that made the imperial project palatable to the metropolitan public. Brower suggests this Romanticism contributed to a French "cult of violence," where the desert's portrayal as a place of extremes helped legitimize the severity of military actions.¹⁹

VI. The Hidden Economy

The shift from 19th-century Romantic depictions to 20th-century economic exploitation reveals strong institutional continuity in treating the Sahara as an extractable void. From Caravans to Hydrocarbons Beneath the romantic veneer of Fromentin's paintings and the strategic maps of Cavaignac lay a persistent economic imperative. Brower reveals that despite the official abolition of slavery in 1848, the administration maintained an "eyes-closed policy" in the Sahara. French officials subordinated moral considerations to colonial stability, preferring to "compromise the law in order to accommodate slaveholding elites."²⁰

This accommodation was part of a broader strategy of economic exploitation. Douida highlights that the ultimate goal was to link the Algerian Sahara with the Sudan to tap into trans-Saharan trade routes.²¹ The "instrumental" knowledge provided by explorers was used to maintain these networks, even if it meant tolerating the slave trade.

This extractive logic evolved over time. By the mid-20th century, the focus shifted from caravans to hydrocarbons. Bouslim details how the discovery of oil and gas in the 1950s led to a desperate attempt to separate the Sahara from the rest of Algeria. The OCSR

18 Said, op. cit .p. 7

19 Brower, 2011, p. 5

20 Ibid.

21دويذة نفيسة. المرجع السابق ، ص 3.

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(Organisation Commune des Régions Sahariennes), established in 1957, was the institutional heir to Cavaignac's mission. It viewed the Sahara as a "sea of sand" rich in minerals, devoid of human agency.²²

The ultimate expression of this dehumanization was the use of the Sahara for nuclear testing. Bouslim notes that the government viewed the desert as "empty" lands suitable for experiments like Gerboise Bleue. The aesthetic emptiness painted by Fromentin became the moral emptiness required by the nuclear physicist. The inhabitants, rendered as static figures in a landscape by the artist, were rendered invisible when the bombs fell. As Douida notes, France sought to keep the Sahara as a "strategic base."²³

VII. Postcolonial Echoes

Reclaiming the Desert Imaginary The legacy of this dual discourse, military precision and aesthetic romanticism, reverberates in contemporary Algerian literature. Algerian literary scholar Amina Zarzi analyzes how novelists such as Malika Mokeddem, Yasmina Khadra, argues that modern authors like Malika Mokeddem, Yasmina Khadra, and Saïd Khatibi continue to grapple with the ghosts of the colonial past.²⁴ Interestingly, they often engage directly with colonial figures like Isabelle Eberhardt, the Russian-Swiss explorer who roamed the desert in male disguise at the turn of the century.

Zarzi suggests that Eberhardt represents a form of "hybridity" appealing to postcolonial writers. Unlike the rigid binary of Cavaignac (conqueror) or Fromentin (observer), Eberhardt sought to "assimilate into" the otherness of the desert. Mokeddem and Khatibi celebrate her as a figure who resisted patriarchal hegemony, even as they acknowledge her ambivalence toward the colonial enterprise.

22 بوسليم صالح بن محمد. جوانب من السياسة الاستعمارية الفرنسية في الصحراء الجزائرية (١٩٥٦-١٩٦٢). *مجلة كان التاريخية*، مج 10، ع 35، 2017، ص 84.

23 دويدة نفيسة. استراتيجية الاستعمار الفرنسي في الصحراء الجزائرية (دراسة تاريخية في الخلفيات والأهداف). *مجلة الدراسات*، جامعة الاغواط، 2022، ص 3.

24 A. Zarzi, Remembering the Colonial Past in Algerian Literature, *The Journal of Imperial and Commonwealth History*, 51(5), 2023, p. 979

However, colonial tropes prove difficult to exorcise. Zarzi notes that Yasmina Khadra's work, *Ce que le mirage doit à l'oasis*, sometimes reproduces the "commanding view" of the colonial explorer. Khadra admits to being "dazzled by the imagination of Savoyard writer Roger Frison-Roche," revealing a "Saharomania" that continues to exoticize the desert.²⁵ This creates a tension: postcolonial writers strive to reclaim the desert narrative, yet they often do so using the aesthetic tools left behind by the colonizers. As Said observed, the "representations of Orientalism... amount to a discursive consistency."²⁶ Even in writing back, postcolonial authors navigate a terrain mapped by Cavaignac and painted by Fromentin. The "Great Void" remains a potent literary symbol, even as its inhabitants fight to assert their historical presence against the erasure of colonial cartography. These postcolonial writers demonstrate not only resistance but also negotiation and adaptation by Saharan societies within colonial epistemic systems.

Conclusion

The colonization of the Algerian Sahara was a project built on both steel and canvas. The analysis of Louis-Eugène Cavaignac and Eugène Fromentin, contextualized by broader state strategies and literary responses, reveals that the empire was constructed as much by reports and paintings as by forts and railways. Cavaignac's "instrumental" gaze rendered the desert accessible, stripping it of defenses and laying it bare for administrative control. Fromentin's "aesthetic" gaze rendered it consumable, wrapping the violence of occupation in the soft gauze of Romanticism.

This study confirms Said's thesis that knowledge and power are inseparable in the colonial context. The "hard," actionable intelligence produced by the military made the venture feasible; the "soft," cultural representation made it defensible. As Brower and Douida have shown, this synergy allowed for the perpetuation of slavery, the extraction of resources, and the eventual partition of the territory.

This study challenges dominant historiographical narratives that marginalize the Saharan conquest as secondary or peripheral,

²⁵ Zarzi, 2023, p. 978

²⁶ Said, op. cit.

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demonstrating instead its centrality to the French imperial project in Algeria.

Today, as we peel back the layers of colonial history, we must recognize that the map and the painting are two sides of the same coin. The legacy of their collaboration remains visible in the enduring stereotypes of the region, what Zarzi calls "Saharomania", and the persistent economic structures that view the Sahara primarily as a zone of extraction. To understand the history of the Algerian Sahara is to read between the lines of Cavaignac's ledgers and to look past the brushstrokes of Fromentin's landscapes, finding the human reality they both sought, in their own ways, to obscure.

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