



The Topography of Mount Boukahil and Its Impact on the National Resistance in the Nineteenth Century

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Abstract

The Ouled Nail region occupied a strategic geographical and economic position as a vital link between northern and southern Algeria and a crossroads of major trade routes. This importance led the French colonial authorities to impose control over the area in 1851 and transform Djelfa into a military zone. In response, the inhabitants of Mount Boukahil and its surrounding slopes resisted colonial domination from the early years of occupation, using the mountain's rugged topography as a natural stronghold against French military expansion toward the Sahara. The geological structure of Mount Boukahil created diverse natural and topographical features that attracted several exploratory missions, which produced reports on the region's geography, tribal composition, and historical events during the nineteenth century. This article examines the geographical and strategic significance of Mount Boukahil and highlights its role in resistance, protection of the local population, and provision of essential resources.

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1. Introduction

The Ouled Nail region held significant strategic and economic importance, serving as a central link between northern and southern Algeria and a key junction of major trade routes. This position drew the attention of the French colonial administration, which imposed control over the region in 1851, designating Djelfa as a French military zone. In response, the local population, particularly the inhabitants of Mount Boukahil and its surrounding slopes, resisted colonial domination from the early years of occupation, using the mountain's rugged topography as a natural stronghold to impede French military expansion toward the Sahara.

Mount Boukahil's geological structure provided diverse natural and topographical features, attracting several exploratory missions that documented the mountain's geography, its tribal inhabitants, and significant historical events during the nineteenth century. This study adopts a historical-analytical approach, examining Mount Boukahil and its slopes to evaluate their geographical and strategic significance, their role in confronting the French military, and their function in protecting the local population while ensuring access to essential resources such as water and food.

- Research Problem

To what extent did the topography of Mount Boukahil play a pivotal role in resisting French colonial expansion into southern Algerian regions, penetrating the Sahara, and protecting its inhabitants from the oppression of the colonial military forces?

- Outline of the Study

1. The Concept of Topography and Its Role in Military Planning
2. The Natural and Topographical Composition of Mount Boukahil and Its Slopes
3. The Demographic Composition of Mount Boukahil and Its Surrounding Areas
4. Case Studies of Resistance in the Boukahil Region

2. The Concept and Significance of Topography

2.1 Topography: Definition and Concept

Topography is the science concerned with representing and depicting the natural and artificial features of a given area on paper or cloth using conventional symbols and a fixed scale. As one of the oldest scientific disciplines, topography has its roots in geometry, with Ancient Egyptian civilization recognized for establishing early geometric principles, as evidenced by explorations in Thebes and Memphis.¹

Topographic mapping gained particular importance during the expansion of European colonial projects in Africa and Asia, further accelerated by the development of railways in the nineteenth century. Accurate knowledge of terrain and natural resources became essential for linking resource-rich areas to ports for export. Since that period, topography has advanced significantly, as demonstrated by developments across European countries, and has been integral to the planning and execution of military operations, particularly during the First and Second World Wars, where maps guided strategic decisions.

The primary purpose of topography is to graphically represent and describe all components of a land surface in terms of location, extent, and relief. This involves practical processes such as surveying, leveling, and measuring elevation to achieve an accurate graphical representation of the terrain.²

2.2 The Role of Topography in Military Strategies

The renowned Chinese strategist Sun Tzu stated nearly 2,500 years ago in *The Art of War*: “Those who do not understand the conditions of mountains, forests, dangerous valleys, marshes, and swamps cannot lead an army.” Military geography is concerned with studying the terrain on which operations are conducted, and geographical information has always been a crucial element in armed conflicts. Across time and space, a reciprocal relationship exists between the natural environment and military engagements. Centuries of striving to defeat adversaries led to significant advancements in weaponry and techniques, aimed at controlling territory and communication lines.

While leadership, training, and armament significantly influence campaigns, geography can decisively determine their outcomes. The interactions between various military operations and their geographical components demonstrate the critical role of terrain, soil, vegetation, climate, and weather in shaping battles. For instance, in 1846, French forces launched twenty-two campaigns against the province of Algeria, deploying 99,892 soldiers and 20,269 horses. In the Ouled Nail region alone, at least six campaigns, totaling approximately 8,650 soldiers,

targeted the area, including Colonel Camou’s 33rd Regiment (1,500 soldiers) pursuing Emir Abdelkader, General Youssef’s 2,500 soldiers, and other expeditions by Colonels Camou, Renaud, and Darboville, supported by Prince Hindi Dook Oumal.³

Mount Boukahil and its rugged slopes represented a major challenge due to their difficult terrain, which provided the local population with a natural refuge and hindered the mobility of the highly trained and well-equipped French military. The inhabitants’ intimate knowledge of mountains, valleys, and trails allowed them to delay colonial expansion, despite their limited resources and lack of formal military organization. Thus, the relationship between geography and warfare is undeniable: terrain and environmental conditions consistently play a decisive role in military planning and decision-making. French officers’ insufficient familiarity with Mount Boukahil’s topography repeatedly undermined their efforts to subdue its inhabitants, neutralizing the advantages of artillery and cavalry—core elements of France’s dominant military power in the nineteenth century.⁴

3. The Natural Features and Topography of Mount Boukahil and Its Slopes

3.1 Natural Setting

Mount Boukahil is located in the Saharan Atlas in southern Algeria. It consists of a series of mountains, including both convex folds and thrust folds from the Cretaceous period, oriented from the southwest to the northeast. The mountains reach relatively moderate to high elevations, ranging from approximately 500 to 600 meters, and are separated by

extensive lowland areas. The elevation gradually decreases from 1,450 meters in the north (Eastern Jilal Mountain) to 600 meters at the southeastern edge of the region, extending into the desert folds.

Precipitation decreases from north to south, with average annual rainfall ranging from 400 mm in the northern areas to less than 150 mm in the southern parts. Aleppo pine and juniper forests still occupy a few isolated locations, while steppe vegetation—such as alfalfa, wormwood, and arbutus—dominates the pre-desert zones. The region is almost entirely used as grazing land, primarily for sheep, reflecting its adaptation to both natural and human-induced ecological conditions.

3.2 Climate Characteristics

Mount Boukahil and its surrounding slopes do not have dedicated meteorological stations, according to Pouget's 1965 study.

Table 1: Average Temperature Data for Nearby Stations

Station	Annual Average (°C)	Average Coldest Month (January, °C)	Average Hottest Month (July, °C)	Maximum Temperature of Coldest Month (January, °C)
Djelfa	13.35	0.8 – 1.0	33.5	9.3
Taadmit	13.35	0.8 – 1.0	33.5	9.3
Laghouat	17.25	2.3	36	12.5

Source: Gustave de Sagazan, *L'Afrique intérieure d'après potémée*, In : *Annales de Géographie* t.60, n. 319, 1951, p 110

Notes:

- Annual Average (°C)
- Average Coldest Month (°C)
- Average Hottest Month (°C)
- Maximum Temperature of Coldest Month (°C)

However, climatic characteristics can be inferred from three nearby stations: Djelfa, Taadmit, and Laghouat. The average annual precipitation (mm) recorded at these stations is 307 mm, 260 mm, and 167 mm, respectively. This region exhibits features typical of a dry Mediterranean climate, including a long, hot, and dry season from May to September, and rainfall concentrated in autumn, winter, and early spring. Precipitation is irregular and varies significantly across the area.⁵

Temperature data, as reported by Seltzer and summarized in Pouget's 1965 study, indicate that the central and northern parts of the region experience a semi-arid climate with annual rainfall between 200 mm and 350 mm. In contrast, the southern parts of the territory receive less than 200 mm per year, with rainfall decreasing further to below 100 mm in the far south. This southern area also experiences more extreme temperatures in summer, supporting the growth of drought-resistant and xerophytic vegetation.

Winds: During the rainy season (autumn, winter, and early spring), prevailing winds generally blow from the west and northwest, whereas the dry and hot winds originating from the south (Sirocco) are more prominent during the warm season and even from early spring.

Western Winds: Northwestern winds bring rainfall and mobilize sand, leading to the formation of small dune fields and sebkhas resulting from the

contraction of dry surfaces in expansive valleys.⁶

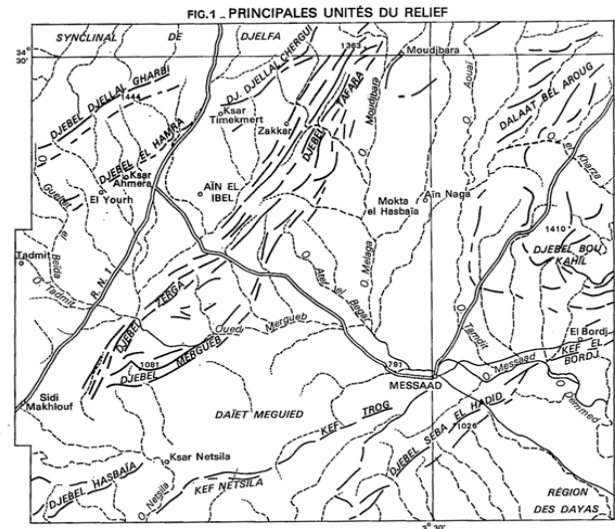
Secondary Climatic Phenomena:

A. Snow: Snow rarely exceeds a thickness of 30 cm (an average of 8 days of snowfall per year in Djelfa) and affects only highland areas, such as the Djelfa syncline, the Western and Eastern Djellal Mountains, Mount Tafara, and locally Mount Boukheil. Thunderstorms are recurrent, especially during the hot season from May to September.

B. Relative Humidity: The annual average relative humidity in Djelfa is 56%, falling below 50% in May, June, July, and August. It decreases further toward the south. The dry Mediterranean phase is characterized by an annual rainfall ranging between 100 and 400 mm.⁷

Mountains: Four main groups of mountain ranges can be distinguished: the Western and Eastern Djellal Mountains to the north and northwest (forming the edge of the Djelfa escarpment); the complete Zerga–Tafara Mountains, a broad convex fold oriented from the southwest to the northeast, crossed by the Ain El Ibel–Messaad road; Mount Boukheil, located in the east, dominates the Messaad basin like a massive fortress that is difficult to access; and the southern boundary of the Atlas, a line of reliefs forming a barrier with the desert region (the Daya area).

Figure 1: Major Mountain Groups of the Djelfa Region



Source: POUGET, NOTICE EXPLICATIVE, op-cit; p 11.

1. Western and Eastern Djellal Mountains (shown in Figure 1): They form the southern wing of the Djelfa mountain range. Limestone slopes dominate the Ain El Ibel depression. This escarpment is interrupted at the level of the Seddour Valley by a fault, which caused the Western Djellal Mountain to shift westward and the Eastern Djellal Mountain eastward. To the north, within the syncline layer, there are outcrops of limestone and clay sequences (Senonian). The Turonian mountain range rises to elevations between 1,400 and 1,450 meters above sea level.

2. Zerga and Tafara Mountains: These mountains are characterized by specific topographical features: “lines of hills at nearly uniform elevations, separated by narrow passes. The hills correspond to hard rock outcrops (sandstone, limestone), while the relatively deep passes, all V-shaped, correspond to soft rocks (highly

fissured sandstone or soft marly limestone, marl)." The entire range rises from the southwest (1,000 meters) toward the northeast (1,363 meters at Dir Namoura near Mjabara). The core of the anticline consists of Jurassic clay and limestone, while its flanks are marked by Barremian sandstone outcrops.

3. Mount Boukheil: The imposing massif of this mountain (1,400 meters) dominates the Messaad basin (760 meters) by forming a steep line of cliffs, whose bases practically rest on the structural surface, with a gentle slope toward the northeast, forming a high rocky chain. The first line of cliffs is composed of Albanian limestone.⁸

-The Hydrographic Network of Mount Boukheilil and Its Surroundings

Historical and geographical studies by French researchers indicate that the distribution of wadis, basins, and sebkhas in the Mount Boukheilil region and its slopes is as follows:

-Fidha El-Batma Plain:

Located north of Mount Boukheilil, it is separated from the Massad area by a series of elevations linking Mount Boukheilil and Mount Qadid. The plain contains a seasonal wadi known as "Sali'," which drains toward Ain Errech in the Massad district.

-Oued Agdi Depression:

This depression represents the southern outlet of the Saharan Atlas and lies in the western part of the Ouled Nail region. Its waters dissipate across very flat

terrain before entering more rugged sections, where the wadi exhibits a meandering and uneven course. Oued Agdi is a long desert wadi originating from Mount Amour, passing through Laghouat and Ouled Djellal, following the Saharan Atlas, and terminating at Chott Melghigh.

The wadi is mostly dry except in the Biskra section, which has led to the region being called the "Land of Thirst" due to extreme aridity and high temperatures.⁹

-M'zab Tributary: A branch of Oued Agdi.

-Al-Dhayat Pastures: Located south of Oued Agdi, these pastures flourish following rainfall, with water stored in natural depressions (Ajbab).¹⁰

-The Plateau or Desert Plain:

Extending south of Oued Agdi, this area consists of a rocky hamada with few outcrops. With a gentle slope toward the southeast, the elevation ranges from approximately 750 meters in the northwest to 300 meters before the escarpments that serve as an entry to Oued Reg in the southeast.

-Oued Massad:

The Massad Plain stretches between Mount Zerqa and Mount Boukheilil, bordered to the south by the Shadda Mountains (980 m) and Jdid Mountain (1022 m) north of the desert. It receives waters from Ain El-Ibl Plain and the central region of Mount Boukheilil, which converge in Oued Massad and flow toward the Hamma area, eventually reaching Oued Agdi basin.¹¹

-Boukhelil Slopes and Alluvial Fans:

Along the slopes of Mount Boukhelil, a series of large alluvial fans extend southward toward the Massad Wadi gap, forming part of the Southern Atlas barrier (Khank Damed). The presence of a watercourse at Mount Boukhelil (1,400 m) and a lower “gap” (600 m) facilitated the formation of these coarse, yet relatively thin, fluvial fans, composed of coarse debris (pebbles and blocks) in a sandy-clay matrix with calcareous-gypsum crusts. In the Burj area, sandstone outcrops and slightly saline springs are found.

On the eastern edge of the Zerqa and Marqab Mountains, a group of hills rests on sandstone, while on the eastern edge of Mount Tafra and Zerqa, more recent cones consist of coarse materials (sandy-clay pebbles).

Older formations correspond to “blocking” areas such as northwest Majbara, west of Massad, and Oued Kharza, characterized by ancient hydromorphic soils, often gypsum-rich and heavily incised by wadis.¹²

-The Spatial Distribution of Vegetation Cover in the Boukahil Region :

Forests occupy significant areas on Mount Boukhelil and its slopes, covering approximately 15,442 hectares, which represents about 11.28% of the total area. Vegetation distribution is primarily influenced by climate, becoming denser toward the north and sparser toward the south. In the upper plateaus

and steppes of Fidha El-Batma and the northern Massad Plain—considered a transitional zone between the Tellian region and the Saharan region—perennial

grasses dominate, particularly Alfalfa (Alhfa spp.), Artemisia (sagebrush), Daghfat, and mountain rose (Rosa spp.).

In the northern desert areas, including the Massad Plain and the Oued Agdi basin, vegetation includes Alfalfa, Senegalia (Senaq), Tamarisk (Remth), and Vicia spp. Juniper trees grow alongside red berries and cedar species, while Alfalfa thrives over large expanses and is widely used in various industries.

Artemisia serves as excellent fodder for sheep, covering extensive areas in the study region and being particularly valued by local shepherds.

Further south, in the depressions, **Aleppo pine (Butm)** grows in larger stands, particularly in the Al-Dhayat pastures, alongside **Derrin**, **Senegalia**, **Tamarisk**, and **Qutaf**. The main plateau is covered by forests spanning approximately 130,000 hectares, consisting of **Cork oak**, **Juniper**, and Taqa trees. In the northern plains, Tamarisk and Vicia spp. coexist with Alfalfa, while Mount Boukhelil hosts numerous species such as Phoenician juniper, rosemary (*Rosmarinus officinalis*), and rock rose (*Cistus* spp.).

Some stands of Aleppo pine (*Pinus halepensis*) may also be present, while Alfalfa gradually colonizes barren lands.¹³

All these plant species were documented by the French physician **Dr. Reboud** in his article titled “*Archaeological Observations on Djelfa and Its Monuments*”. The military translator **Arnaud** also noted in his study, “*Exploration of Mount Boukhelil*”, the abundant presence of Alfalfa and Artemisia in the region, emphasizing that the Djelfa area is particularly rich in these species.¹⁴

-Economic Activities of the Boukhelil Population

The region of Mount Boukhelil possesses a significant and diverse **faunal wealth**. Among small mammals, two species of jerboas are present: *Jaculus jaculus* and *Jaculus orientalis natalensis*, as well as gerbils (*Gerbillus spp.*) and the desert dormouse (*Meriones spp.*), as documented by Arnaud in his article "Exploration of Mount Boukhelil". These deer-like species, including the desert gazelle (*Gazella dorcas*) and the wild cat, are rare and confined to the desert and the summits of Mount Boukhelil. Predators such as hyenas are present, while leopards, also mentioned by Arnaud, are rare and nearly extinct. Additionally, foxes and fennecs inhabit the desert regions, alongside hedgehogs and a bat species locally called *Boughlida*.

In the **avian fauna**, species include storks, greylag geese, partridges, pigeons, pigeons (columbidae), doves, wild birds, shrikes, crows, hoopoes, and quails. **Insect species** documented in the area include beetles (*Bouj'ran*), locusts, scorpions (*Naqat Sidi Suleiman*), mantises, and *Belkazz*.

The region is also characterized by domestic livestock, including sheep, goats, cattle, camels, and horses, which form a core part of the local economy.¹⁵

Furthermore, the area supports subsistence agriculture, primarily along wadi banks where water is available. This agricultural activity is concentrated in locations such as Ksar Amoura, Abdelmadjid, Ain Errech, Ghamra, and Ksar Damed, where the abundance of water allows for productive farming despite the arid environment.¹⁶

3- Demographic Composition of Mount Boukhelil and Its Slopes

The strategic location of Mount Boukhelil at the heart of the tribal territories has historically provided significant protection for local populations, offering both safety from military oppression and access to water and food. It also served as a refuge for rebels. The region is inhabited by several tribes and sub-tribes, distributed as follows:

-Ouled La'our (in the municipalities of Salmana and Burj):

Also known as Ouled La'our and Al-Mahash, this tribe was not subject to the legislative decree and fell under the judicial district of Djelfa, approximately 24 km southeast of Djelfa. The tribe comprises the following lineages: Ouled Abdallah, Ouled Salem, Ouled Saleh, Nakharza, Al-Niouf, Al-Mahash, Al-Mahaihib, and Al-Na'im.

-Ouled Om El-Ikhwa (in Ksar Amoura, Fidha El-Batma, and Abdelmadjid):

This tribe is part of the Arab municipality under the judicial district of Djelfa and division of Médéa.

-Arsh Ouled Sassi (at Ras El-Mi'ad) and Ouled Sassi Bten Kbir:

These are branches of the Ouled Issa tribe in the Arab municipality under the judicial district of Biskra. The Ouled Sassi tribe consists of the following lineages: Ouled Hawli, Ouled Mohia, Ouled Jouglaf, Ouled Youyou, and Ouled Mohila.¹⁷

-Khawaled: Ouled Boukhelifa and Ouled Harakat (in the municipality of Sidi Khaled):

The Harakata are Arab Hilalians descending from the Ouled Nail of Zghba, their ancestor being Harakat bin Zakari bin Nail.¹⁸

-Ouled Sassi, Ouled Harakat, Ouled Rahma, and El-Jalala (in Ouled Djellal): Not subject to the legislative decree, these groups belong to the Arab municipality and judicial district of Biskra, located approximately 75 km southwest of Biskra along Oued Agdi.¹⁹

-Al-Dousen Al-Bouazid (from the Ouled Abdallah section):

Originating from Jebel Amour, some settled in Sidi Bouzid while others migrated to El-Hamel. Branches known as **Sidi Hajras** and **Al-Shurfa** exist in Ouled Addi, in the region of Qibala (M'sila).²⁰

-Ouled Rahma (in Chaiba):

A lineage of the Ouled Zakari tribe of Ouled Nail, under the Arab municipality and judicial district of Biskra, south of Batna. Sub-branches include **Ouled Ammar** and **Ouled Maamar**.

-Ouled Suleiman (in the municipality of Djeb): A branch of Ouled Zakari of Ouled Nail.

-Ouled Khaled (in Ben Serour): A major lineage of Ouled Zakari of Ouled Nail. They, together with Ouled Madi, are also present in Boudiaf.²¹

-Ouled Sidi Ziane (in Chahad): Belonging to the Aghalik and Oued Cher tribes, this branch of Ouled Nail is not subject to the legislative decree and is part of the Arab municipality of Boussaâda. The tribe comprises the following lineages:

Ouled Ben Ali, Ouled Sidi Massoud, Ouled Boudina, Ouled Ben Tisamer, Ouled Nomm, Ouled Sharaf, Ouled Saidi, Ouled Zahaf, and Zamala. They are also present, along with Ouled Hamad, in Ain El-Melh.

-Ouled Harakat and Ouled Rabah (in Al-Qusai'at):

-Ouled Rabah, in Ain Faras, is a lineage of the Ouled Zakari tribe, while Ouled

Harakat are also present in the El-Abiad area.²²

-Mohamed Al-Mubarak (in Ghamra and Ain Errech):

Descendant of **Ben Mohamed Ben Dqman**, a revered saint buried in Zaghr at Hassi Bahbah. This branch belongs to the Ouled Issa, a subdivision of Ouled Nail.²³

4-French Military Campaigns against Mount Boukhelil Inhabitants and Local Resistance

The French expansion to occupy the remaining regions of Algeria proceeded rapidly and with detailed military planning, employing specialists in sociology and topography. Mount Boukhelil and its slopes held strategic significance for France for two main reasons:

-Strategic Location: The mountain served as a natural barrier obstructing the advance of French troops, connecting the northern territories under colonial control to the vast southern regions.

-Population and Resources: Controlling these densely populated areas facilitated the occupation of the southern territories and allowed the exploitation of local resources.

The tribes and confederations of Boukhelil resolutely resisted French encroachment throughout the 19th century. The mountain acted as a formidable fortress against these campaigns, thwarting several French military operations. Notable campaigns and instances of resistance include:

A. Campaign of General François Charles du Barail against the Ouled Om El-Ikhwa (1845–1854)

After a French attack on the Ouled Om El-Ikhwa tribe in 1845, its cavalry fled to Mount Boukhelil to join Sherif

Mohamed Ben Abdallah's resistance. The French intercepted this plan, and to prevent their joining the southern desert resistance, General **du Barail**,²⁴ commander of Laghouat, led a detachment of 340 infantry, 35 cavalry, 15 mounted Makhzen troops, and 100 riders from the local quarters. Additional support was sent from Boussaâda under Commander Théodore Pan. The two commanders met at **Hassi Ziane** on 17 October 1854 and monitored the movements of the Ouled Om El-Ikhwa with the guidance of Fliber, head of the Arab Office in Boussaâda and an expert tracker.

On 26 October 1854, the Ouled Om El-Ikhwa prepared to resist at **Hassi Lfatah**. They were attacked on four sides in a highly unequal battle, where French artillery was deployed. The tribe retreated into the mountains, and the French collected spoils, including the clothing of Marshal **Gilbert de Barail**.²⁵

-The resistance of the Ouled Om El-Ikhwa in 1854, described by French military translator **Arnaud** in *Exploration of Mount Boukhelil*, resulted in approximately 13 casualties. Colonel **Colonna** organized local cavalry for camping and patrol operations toward **Oued Agdi**, beginning 10 October 1854.

During subsequent movements toward Massad, they were ambushed by troops under **Ben Hashim**, inflicting losses on the French in soldiers, horses, and supplies.²⁶ The chaos was vividly described by Arnaud:

"The caravan's camels scattered in panic; sacks of barley and boxes of biscuits were thrown about..."

A further attack occurred on 26 October 1854 in Hassi Lfatah. The French,

aware of the ambush, surrounded the rebels on four sides, deploying artillery, forcing the Ouled Om El-Ikhwa to withdraw to the mountains, and seizing all spoils.²⁷

B. Campaigns of General Joseph Valentini²⁸ on the Slopes of Mount Boukhelil

According to Arnaud, General **Joseph Valentini** launched three simultaneous campaigns in a single day against the **Ouled Sa'id Ben Salem**, as part of his pursuit of **Emir Abdelkader** in Massad. These operations imposed heavy fines on local populations and targeted settlements in Burj and the foothills of Mount Boukhelil. Following these punitive measures, the general moved toward **Ksar El-Zakat**, passing through El-Bayda, Ta'azmit, and El-Ghamra.²⁹

C. Resistance of the Ouled La'our

The **Ouled La'our** tribe joined the resistance of Emir Abdelkader from 1836 to 1847. During the Emir's first journey to **Oued Khtala** west of Massad in 1837, they pledged allegiance to resist colonial presence despite anticipating harsh French retaliation. In his second campaign to the upper plateaus in late 1847, the Emir, accompanied by the **Tellian tribes of Belkhel**, clashed with French forces at Mount Boukhelil, effectively blocking French advances.

Like other Ouled Nail confederations, the Ouled La'our participated in major 19th-century revolts, including the **Boumaza revolt** (1847), resistance against the **Zaatsha** (1849), and campaigns led by **Mohamed Ben Abdallah Sherif in Ouargla** during the 1850s. In response to General Valentini's punitive measures, the Ouled La'our and Ouled Akhdar organized desert-based

resistance in 1846. Among local leaders, **Abdelrahman Ben Taher** is particularly noted.

D. Campaign of General Mary-Monge³⁰ on Ksar El-Majbara (1847)

On **Tuesday, 23 February 1847**, General **Mary-Monge** attacked **Ksar El-Majbara** at the foot of Mount Boukhelil, due to its support for **Sheikh Boumaza** on his route to El-Ziban. This campaign demonstrated the strategic annoyance that the fortresses of the region, such as Massad, posed to the French. According to the *Le Constitutionnel*, the operation involved 200 cavalymen allied with France under **Ahmed Ben Salem**, capturing 100 cattle and camels, and between 3,000 to 4,000 sheep. The fort was destroyed and later rebuilt in 1854.³¹

The general sought to install loyal local leaders and distribute livestock:³²

- **Tell Belkhel³³** appointed as Agha
- **Miloud** as deputy
- **Bourouba** as commander of the Ouled Nail
- **Qutaf** retained independent leadership

According to French reports, the campaign temporarily imposed **peace and submission in Biskra**, but rebel movements persisted in the southeast, requiring further intervention by General Mary-Monge.³⁴

B. Resistance of Tell Belkhel (1846)

Sheikh Tell Belkhel led several battles alongside **Emir Abdelkader**, including:

- Battle of Oued Yesser** (5 January 1846), which inflicted heavy French losses in both manpower and equipment.
- Battle of Oued Seba'** (7 January 1846).
- Battle of Ain El-Kahla**, in the vicinity of Mount Boukhelil, where Tell Belkhel,

supported by **Emir Abdelkader** and local contingents under **Ahmed Ben Salem Ben Dqman**, engaged French forces.

In **Jebel Amour** (6 April 1846), Tell Belkhel's forces were divided into two units: one with the Emir, the other under Tell Belkhel himself. The French were forced to withdraw, and Tell Belkhel reportedly met **Sherif Mohamed Abdallah of Ouargla** near El-Ghrara en route to **Beryan**.

In June 1852, a major resistance gathering of the **Ouled Nail**, led by Tell Belkhel, took place in **Ksar El-Hiran** near Laghouat, awaiting the arrival of the martyr **Sherif Mohamed Ben Abdallah (Boumaza)**. Tribes from the **Sha'naba** also joined the gathering.

On **4 December 1852**, the **Battle of Laghouat** occurred, in which Tell Belkhel demonstrated exceptional leadership. The event, later known locally as "*Ba'am El-Khalia*", witnessed massacres perpetrated by the French against children, the elderly, and women.

Tell Belkhel continued resistance into early 1854 alongside Ahmed Ben Salem near **Touggart**, was captured by **Suleiman Ben Ali**, but escaped thanks to the wife of the regional commander. On **15 January 1854**, he launched an attack on French forces, sustaining severe injuries that led to his second arrest. He was later pardoned due to old age but placed under house arrest until his death by drowning in **Oued El-Hajia**.³⁵

D. Campaign of Emile Herbillon³⁶ against Ouled Djellal (1847)

In **January 1847**, French forces under General **Emile Herbillon**, assisted by local auxiliaries, advanced toward **Ouled Djellal**, positioning themselves near the

wadi slopes, where palm trees obscured the village. Before engagement, Herbillon held negotiations with local notables for five hours, presenting impossible demands, including:

- Unconditional surrender
- Payment of exorbitant fines
- Delivery of the local Sheikh in exchange for general amnesty and safety

The **resistance of Ouled Djellal** was meticulously organized. According to Sir Rock, when Herbillon entered the village, all residents were armed, positioned along the edges and palm trunks, and even women actively encouraged fighters. Sherif Boumaza had withdrawn prior to the French arrival to **Oued Tel**, accompanied by Ouled Zaid, Ouled Sassi, and other Ouled Nail volunteers.

The French attempted to demonstrate their superiority by directing artillery fire toward the mosque minaret, intending to intimidate the population. Contrary to expectations, this act galvanized the defenders, and the battle lasted an entire day. The final toll for the local fighters was **62 martyrs and 90 wounded**, some dying later.

Subsequently, the villagers requested peace, resulting in an agreement between Herbillon and representatives of the local popular resistance, led by religious scholars and Sufi elders from **El-Ziban** and surrounding regions such as Laghouat, Massad, and Boussaâda.³⁷

E. Resistance of Moussa Abu Al-Hassan Al-Masri Al-Madani (1831–1849)³⁸

The jihad in Ouled Nail territories is closely linked to **Moussa Abu Al-Hassan**, who initiated popular resistance in Massad

in 1831. He was widely respected and welcomed by the local population.

Moussa established a **zawiya, mosque, and residence in Massad**, forming the operational hub of his 19-year resistance.³⁹

In 1849, he led a military expedition from Massad to **Za'atsha**, with a force composed mainly of **Ouled Nail tribes**: approximately 3,000 cavalry from **Arsh Al-Abaziz** and 2,000 infantry, under the banner of "*Holy War*".

He initially clashed with French forces near the capital and the Emir Abdelkader, later regrouping in Massad. In 1848–1849, he joined forces with **Sheikh Ahmed Bouziane** in Za'atsha, with a contingent of about 80 fighters from Massad's Ouled Issa branch, where he was ultimately martyred.⁴⁰

1. Battle of Matarih⁴¹ (1849)

On 9 May 1849, French forces departed Médéa under the command of General Ladmirault,⁴² assisted by Colonel De Combray (infantry), Colonel Dernji (cavalry), and Captain Gabrio, head of the Arab Bureau in Médéa. The expedition included contingents from Ouled Mokhtar and Ouled Nail El-Gharaba, led by Agha Ben Yahia Ben Issa, along with field artillery and various administrative, medical, and logistical units.

The French army first inspected and subdued Zaghar, levying taxes and consolidating authority. They replicated these operations across Bougar, Taqin, Qalta Al-Satl, Djelfa, Dmed, Massad, Fidh El-Batma, Mililiya, and Ain Rish. General Ladmirault established his camp in Ain Rish and assigned night maneuvers to African sharpshooters and local troops to ambush tribes refusing tax payments.

When French vanguard units approached, Ouled Mohamed Mubarak Al-Nazla fled toward Mount Boukheilil, leaving behind livestock and property, which became substantial French spoils without firing a single shot.

Subsequently, on 8 June 1849, the French moved toward Ain El-Melh, then advanced against the tribes Ouled Sidi Khaled and Ouled Omar Faraj for their refusal to pay taxes.⁴³

On 11 June, French forces received intelligence that Ouled Omar Faraj had retreated to the mountains. General Ladmirault dispatched two military units quietly to encircle the rebels.

Infantry under Colonel De Combray advanced through El-Qrara, Thaniyat Al-Sara, Mahajara, Dkhla Al-Saadon, Suhail, Dkhla Al-Dhban, while cavalry under Colonel Dernji, accompanied by units from Ouled Allan and Ouled Nail, moved through Rimimna, Ain Aghrab, Massad, Tounal, Thaniyat Al-Souk to reach Matarih, where they encountered Ouled Omar Faraj fleeing with their property toward Mount Frennini.

Ouled Omar Faraj positioned themselves behind rocks and trees with traditional weapons (rifles, swords) about 2 km from the French. Despite the disparity in firepower, the resistance fought bravely.

After approximately one hour, they withdrew toward the northwestern slopes of Mount Bouma'a, leaving 27 dead, numerous women and children captured, and 2,000 livestock seized. French casualties included the death of Captain Gabrio (site now called *Dhalaat Al-Qabtân*), severe injury to Captain Fondofro, and six wounded soldiers.

The campaign ended with temporary submission of Ouled Omar Faraj and the imposition of a 10,000 franc fine, marking a short-term French victory. However, these punitive measures contributed to local agitation, eventually feeding into subsequent uprisings such as the Za'atsha Revolt and support for Sherif Si Moussa Al-Hassan Al-Madani or Sherif Mohamed Ben Shbeira.⁴⁴

3. Colonel Dumas⁴⁵ Campaign on Boussaâda Oasis (October 1849)

In 1849, French forces intensified operations east of the Ouled Nail territories to counter the resistance led by **Bouziyan** in the **El-Ziban** region, particularly **Boussaâda**. **Colonel Dumas** mobilized troops in **El-Barouaqlia**, advancing along routes connecting **El-Batoun**, **Ain Faqh**, **Aqla El-Bayda**, **Tamsa**, **Boussaâda** via **Ain Sab'**.⁴⁶

Sheikh **Mohamed Ben Shbeira** sent calls for support, which were answered by local tribes and neighboring inhabitants. The French garrison in Boussaâda faced attacks from Ben Shbeira and his allies.⁴⁷ French reinforcements eventually reached Boussaâda on **14 November 1849**, imposing heavy taxes, confiscating property (including carpets and valuable textiles), and converting the **Qasr Boussaâda** into the **Arab Bureau** to consolidate control. Colonel Pan was appointed head of the Arab Bureau.⁴⁸

The campaign included battles with **Ouled Amer** and **Ouled Faraj** in **Ain Sab'**. Resistance fighters fortified themselves among rocks for several hours to allow families to withdraw southward.

The battle resulted in **15 resistance fighters killed**, two French soldiers dead, six wounded, and the capture of families,

forcing negotiation and tax compliance. Local opposition persisted beyond **24 December 1849**, with sporadic clashes continuing thereafter.⁴⁹

3. Colonel Theodore Pein's⁵⁰ Expedition against Ouled Taba'a (1852)

Following the final French conquest of **Laghouat** on **4 December 1852**, General **Youssef** ordered **Colonel Pein**, assisted by the **Senussi agent**, to suppress the remaining Ouled Taba'a clans in **Mount Karbattit**, near **Mount Dukhan** in the Massad area. This punitive expedition aimed to discipline tribes that resisted French authority and had allied with the defenders of Laghouat.

According to Pein, intelligence indicated that Ouled Taba'a had concentrated in **Mount Karbattit** near Dmed, refusing negotiation. The French executed a **deceptive maneuver**, pretending to march northward toward Boussaâda to draw rebels out of their fortified positions in Mount Boukhelil. Reconnaissance units monitored rebel positions, while French forces advanced along difficult southern routes and western passes. Artillery targeted the area, encountering resistance that resulted in casualties among both rebels and French troops.⁵¹

Pein's reports do not mention massacres of civilians; most men had joined broader resistance movements led by **Mohamed Ben Abdallah**, leaving the elderly and children in the villages. Local oral histories, however, recount heroic resistance, including the story of **Sheikh Ibn Atiya** and his daughters, who, after his martyrdom on the mountaintop, threw themselves off the cliff to avoid capture.

French confiscation included livestock, yet some herds were reportedly recovered by Ouled Taba'a.

4. Resistance of Ouled Taba'a (1852)

Local oral traditions and French accounts confirm that Ouled Taba'a actively resisted French expeditions. Pein notes: *"We captured all their livestock present in the area, yet by morning some had been recovered by Ouled Taba'a; what we took with us to Dmed represented a significant loss to them."* French translator **Claude Allain** corroborates this resistance, emphasizing its historical significance as part of broader Ouled Nail opposition in **1852–1853**.⁵²

5. Conclusion

This research paper has presented a contemporary historical approach examining the interplay between time, environment, and human agency, particularly through the lens of topography, and its pivotal role in shaping conflicts and battle outcomes. The topography of Mount Boukhelil provided a natural refuge for insurgents and constituted a formidable obstacle to French colonial expansion toward the southern regions of Algeria, safeguarding its inhabitants from the oppressive machinery of the colonial army.

Mount Boukhelil's strategic position, serving as a barrier between the highlands and the desert and as a link between the eastern and western sections of the Saharan Atlas, historically offered security and protection for its resident tribes. Its fertile slopes and valleys supported agricultural activity and sustained pastoral herds, making the region an economic as well as a strategic asset

worthy of multidisciplinary research in the fields of humanities, social sciences, and economics.

Despite the clear technological and organizational superiority of the French forces—who possessed advanced weaponry, disciplined formations, and sophisticated military planning—the intimate knowledge of the mountains, valleys, and passes by the local tribes significantly delayed the colonial project and impeded military penetration. The French officers' insufficient understanding of Mount Boukheilil's topography repeatedly undermined their efforts to subdue its inhabitants, neutralizing the advantages of artillery and cavalry, which constituted the core of France's formidable military power at the time.

French expansion across Algeria proceeded with remarkable speed and relied heavily on military planning that incorporated sociological and topographical expertise. The significance of Mount Boukheilil and its slopes compelled France to deploy its most capable generals to subdue the population and assert control. Nevertheless, the tribes and clans of the Boukheilil region consistently expressed unequivocal resistance to the French occupation throughout the nineteenth century, with the mountain itself serving as an impregnable fortress against repeated military campaigns and colonial strategies.

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