



## Research Article

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Received: 20 January 2023 / Accepted: 29 February 2024 / Published: 6 March 2024

# Heritage Values and Historical Significance of the Colonial Railway Built at the Algerian Sahara's Gateway

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DOI: <https://doi.org/10.36941/mjss-2024-0008>

## Abstract

*This research aims to chronologically explore the historical development of Algeria's railway system and conduct an in-depth analysis of the Biskra city railway station's heritage values. It seeks to provide context for the specific case under investigation and advocate for the preservation and enhancement of the station's significance. The research comprises two phases: identifying the railway system in Algeria through a diachronic analysis and conducting a historical-architectural inquiry focused on the Biskra railway station. A qualitative methodology is employed, involving the examination of archival documents, historical accounts, geographical maps, and architectural drawings. The railway heritage in the Ziban region, facing obsolescence, warrants national recognition for its industrial and historical importance. The Biskra railway station symbolizes Algeria's history and industrial era, yet its contemporary utility decline mirrors other stations in the region facing disuse, threatening their heritage. Despite this, the station holds potential to chronicle humanity's industrial revolution. Industrial heritage, particularly railway heritage, remains underappreciated in Algeria, necessitating policy measures for management and social efforts for preservation. Recognizing and safeguarding this heritage requires legal frameworks, social mobilization, and active engagement from associations.*

**Keywords:** Railway system, heritage values, Biskra railway station, industrial heritage, preservation

## 1. Introduction

Railway heritage is categorized as a subset of industrial heritage, a classification that was originally introduced by Arthur Raistrick in 1972 within his work "Industrial Archaeology: An Historical Survey." Raistrick's definition characterizes industrial monuments as structures or edifices, either solitary or connected to primary industrial equipment, that date back to the era of the industrial revolution. These monuments serve as illustrative embodiments of the nascent stages and

progression of industrial processes and techniques, encompassing elements of communication (Raistrick, 1972). In July 2003, the Nizhny Tagil Charter further expounded upon this notion, establishing industrial heritage as comprising the remnants of historical, social, architectural, or scientific significance within industrial culture. This encompasses a wide array of elements, including edifices, machinery, structures, and transport infrastructure (TICCIH, 2003). To delineate railway heritage, it is imperative to perceive the railway as a multifaceted system that has evolved over time. This system encompasses various constituents, such as railway structures, artistic creations, tracks, and rolling stock. The most recent formulation, articulated in the "Dublin Principles" of 2011, authored by ICOMOS and TICCIH, incorporates intangible dimensions into the concept of industrial heritage. This perspective encompasses social and cultural practices that have evolved under the influence of industry, as well as the transmission of technical knowledge (ICOMOS, 2011).

In Algeria, railway heritage is characterized by its lack of distinct classification, being grouped together with other forms of heritage. Moreover, this heritage category has suffered from insufficient acknowledgment and the absence of protective measures implemented on its behalf. It is noteworthy that the railway station in Skikda represents a singular instance, as it was designated as a historical monument in June 2017. This classification was based on several criteria, including its aesthetic significance, characterized by the neo-Moorish architectural style and its diverse architectural elements, as well as its pronounced economic and social value (Government of Algeria, 2017). The railway station undeniably represents the paramount symbol and reference point within the context of the railway system. In the Ziban region, it holds historical significance, and its architectural distinctiveness sets it apart from other stations nationwide. Furthermore, the investigation of the railway station is inherently intertwined with the examination of the broader network to which it belongs, including the configuration of its date-specific network. Given the prevailing apathy toward this heritage, its identification and valorization remain imperative. By scrutinizing the railway station within the contextual frameworks of territory, region, urbanity, and architecture, this research seeks to discern the heritage values that can significantly contribute to its acknowledgment and preservation. This endeavor serves to augment our scientific understanding, potentially informing prospective heritage conservation efforts.

## 2. The Genesis of the Algerian Railway

Confronted with the challenges of transportation, infrastructural deficiencies, and the imperative to exploit Algeria's resources, the French administration encountered the remnants of a Roman thoroughfare that had been effaced and supplanted by narrow Ottoman pathways. In response, they decided to advance communication networks by incorporating them into the existing road system (Godard, 1996). The birth and progression of Algeria's railway system can be delineated through a series of distinct phases and railway development initiatives. The selection of the communication network modality underwent rigorous evaluation, including comparative assessments of construction and operational costs between roads and railways. This analysis revealed that railways offered a more cost-effective transportation medium, factoring in long-term maintenance, rapid transit capabilities, and their broader societal impact (Delavigne et al., 1854).

### 2.1 *The first railway program 1857-1879*

The legal foundation for the Algerian railway system was established through the imperial decree issued by Napoleon III, marking its inception on April 8, 1857. This decree encapsulated the subsequent propositions as follows (Bejui et al., 1992):

- Implementation of a parallel railway line running along the Mediterranean coast, interconnecting the three provincial capitals: Constantine, Algiers, and Oran.
- Establishment of perpendicular railway lines extending from the Mediterranean coast to connect the principal ports with the inland regions of the country.

## 2.2 *The second railway program: 1879 – 1907*

The second railway program was marked by the reclassification of extant local interest rail lines into those of national significance. It also encompassed the expansion of railway branches in the northern regions, extensions reaching the Moroccan borders, and the establishment of a railway network in the southern territories within the departments of Constantine, Algiers, and Oran (Poggi, 1931). These years witnessed the embryonic development of the Algerian railway, commencing with a coastal parallel line and north-south transversal routes.

## 2.3 *Third railway program 1907 - 1920*

Primarily marked by the consolidation of engineering infrastructures and the execution of maintenance and repair tasks, this phase also involved the implementation of additional branch lines that were not undertaken during the 1879 program. These newly realized branch lines included the routes: Tlemcen - Beni-Saf, Sidi-Bel-Abbès - Tizi - Mascara - Uzès-le-Duc, Relizane - Prévost-Paradol via Zemmora, Orléansville - Ténès, and Bouïra - Aïn-Bessem – Aumale (Bejui et al., 1992).

## 2.4 *Fourth railway program 1920 - 1960*

The program was implemented in the latter part of 1921, distinguished by the consistent alignment of the companies' rail lines—PLM in the western region and CFAE in the eastern sector. Additionally, the program emphasized the modernization of these networks, including the electrification of the Bône - Oued Kéberit mining line. Ultimately, management responsibilities were entrusted to the Société Nationale des Chemins de Fer Français en Algérie (SNCF), which was endowed with capital contributions from both the state and the SNCF métropolitaine (Bejui et al., 1992).

## 2.5 *The railway during the post-colonial period (Fourth program 1962- until today)*

In addition to the initiatives involving electrification, track expansion, and the establishment of industrial rail lines, the Algerian railway system has retained its original colonial structure, reflecting the historical impetus to industrialize the nation. Oversight of the railway system is presently held by the national railway company, SNTF. Notably, in the 21st century, a significant development occurred with the establishment of ANSERIF in 2005, a national agency tasked with studying and monitoring railway investments. The primary mission of ANSERIF is to foster the growth of the railway sector by constructing new stations, expanding railway networks, and acquiring state-of-the-art high-speed trains. Regrettably, the older railway stations have largely remained stagnant in terms of development, as they have been excluded from programs aimed at adaptation, modernization, and preservation.

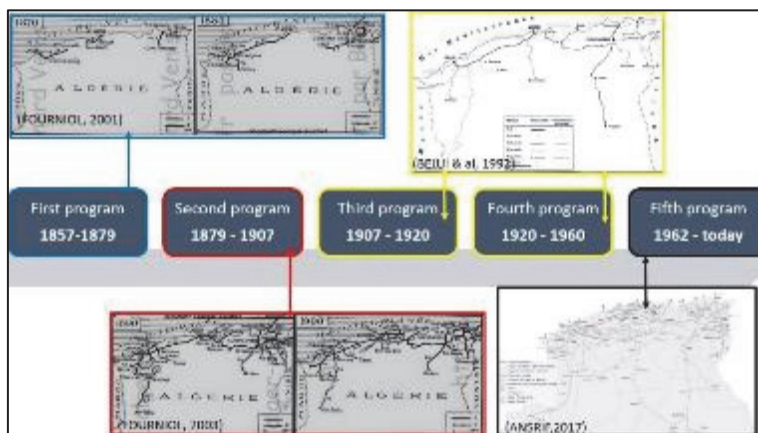


Figure 1. Diachronic representation of the Algerian railway evolution - Source: researchers

Table 1. Algerian railway programmes.

Railway programmes	Date of realisation	Operating company
First railway programme	1857-1879	-The Algerian railway company CFA - Paris Lyon Mediterranean PLM company - The company of the West - The company of the Est - The Company Bône- Guelma - The Algerian state railway company CFAE
Second railway programme	1879 - 1907	- The administration of the southern territories - Paris Lyon Mediterranean PLM company - The company of the West - The company of the Est - The Company Bône- Guelma -The Algerian state railway company CFAE
Third railway programme	1907 - 1920	- The administration of the southern territories - Paris Lyon Mediterranean PLM company - The company of the West - The company of the Est - The Company Bône- Guelma -The Algerian state railway company CFAE
Fourth railway programme	1920 - 1960	- Paris Lyon Mediterranean PLM company -The Algerian state railway company CFAE -The French National Railway Company in Algeria SNCF
Fifth railway programme	From 1962 until today	-The national rail transport company SNTF

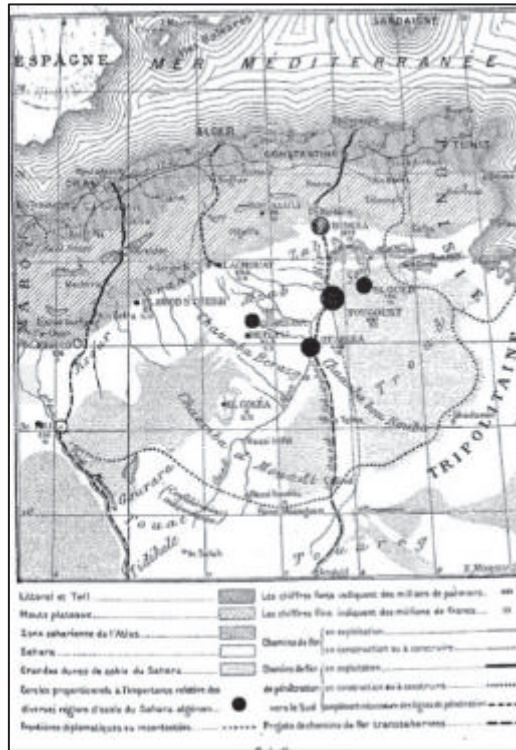
Source: (BEJUI & al, 1992)(BEJUI & al, 1992)

### 3. The Railway at the Gates of the Sahara

The introduction of the railway system in the Ziban region was facilitated through the endeavors of the Algerian East Company during the creation of a standard-gauge line of national importance. This line extended from El Guerrah, situated 37 kilometers away from Constantine, to Biskra, traversing the town of Batna. Referred to as the "date network," this railway line was intricately linked with the prevailing commercial strategy of that era, specifically geared towards facilitating the transportation

of dates to the northern regions of the country, intended for export. The construction of this 203-kilometer-long railway line, spanning from 1882 to 1888, encompassed a route that traversed the Aurès Mountains, culminating in the date-rich oasis region (see Figure 2).

Considering the significant economic advantages it offered, along with its dual military objectives, involving troop transportation and commercial purposes, the administration responsible for the southern territories acquired the concession to build a narrow-gauge local interest railway line. This line, with a track gauge of 1 meter, extended from Biskra to Touggourt and covered a distance of 217 kilometers. It was inaugurated in June 1914, just a day prior to the outbreak of World War I (Fourniol, 2001).



**Figure 2.** Map showing the railway in the region of Biskra and Touggourt  
**Source:** (ROLLAND, 1864)

In 1916, a narrow-gauge branch line measuring 1 meter in width and spanning 35 kilometers, connecting Oumache to Tolga, was inaugurated. The primary purpose of this branch line was to facilitate the transportation of agricultural products. However, it is noteworthy that this branch line was decommissioned in 1953 (Figure 3).

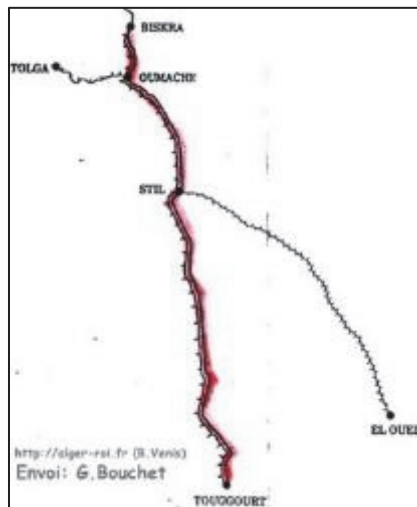
The progressive development of the Biskra region during this period introduced an additional dimension to the existing strategic and agricultural roles of the railway network. This expansion bestowed upon it a new role in the realm of tourism. The railway network, which constituted one of the most significant achievements in the Saharan region, actively participated in the inter-war propaganda of that era. This development culminated in the reclassification of the Biskra to Touggourt line as being of national importance. Consequently, it was entrusted to the management of the Chemins de fer Algériens de l'Etat (CFAE).

The final branch line to be constructed on this railway was initiated in 1946, extending from Still to El Oued (see Figure 5). This particular line featured a narrow gauge of 0.600 meters and had a total length of 145 kilometers. Regrettably, due to the formidable challenges posed by traversing the sand dunes and the ongoing need for substantial maintenance efforts, this line was discontinued merely four years after its inception.

Ultimately, with the discovery of oil in Hassi-Messaoud in 1956 and natural gas in Hassi R'mel, pipelines gradually supplanted the railways as the preferred means for transporting oil. This transition had a profound impact on the region, resulting in a significant reduction in rail traffic (Bejui et al., 1992).



**Figure 3.** Map showing the Oumach - Tolga railway branch line  
**Source:** (BOUCHET, 2007)



**Figure 4.** Map showing the branch line to El Oued  
**Source:** (BOUCHET, 2007)

### 3.1 Historical overview of the railway in Biskra

Significantly predating the establishment of railway infrastructure in Biskra, railways were already operative in various cities across Algeria, including Philippeville (present-day Skikda), Constantine, Algiers, Oran, and Saint Denis du Sig. The groundwork for the Biskra railway project was authorized by the enactment of the law dated 21 July 1884, subsequently initiated by the East Algerian Company. A tract of land situated to the north of Fort Saint Germain was granted by military engineers to



facilitate the construction of the railway station and the passage of the railway (Pizzaferrir, 2011).

By the year 1887, the construction of the Biskra railway station was successfully concluded, a moment captured by the exclamation, "Biskra? But the railway arrived there six months ago!" This proclamation was made in December 1888 by the Mining Engineer Georges Rolland (Rolland, 1889).



**Figure 5.** The Biskra railway station at the beginning of the 20th century  
**Source:** (PIZZAFERRI, 2011)

### 3.2 The logic of creating railway stations in Biskra.

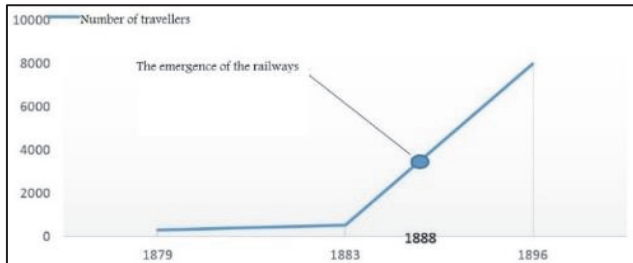
- a. **Commercial Logic:** The terminus of the railway line in Biskra holds significant economic relevance. It signifies a pivotal juncture that revolutionized the transportation of commodities, particularly the vital export product, dates (refer to Figure 6). During this period, the Biskra station played a central role in dispatching the entirety of table dates intended for export, which were subsequently processed at the port of Philippeville (Pizzaferrir, 2011).



**Figure 6.** Dates stored in the railway station of Biskra  
**Source:** (Bnf Gallica , 2019)

**Touristic:** The development of the railway system also entailed a notable tourism-oriented objective. The region garnered significant attention from numerous authors and travelers who extolled it as a preeminent tourist destination, thanks to its climate and picturesque landscapes. This facet enabled travelers, particularly those seeking respite from European winters, to embark on a journey from

Europe to the Ziban region within a remarkably brief span of three days. During this era, this feat was widely regarded as a considerable achievement. As expressed in the words of one traveler, "Mais Londres et Paris sont à trois jours de Biskra : il faut un jour à peine jusqu'à Marseille, un autre jusqu'à Philippeville, d'où les wagons de l'Est- Algérien vous transportent à Biskra en douze heures" (Hurabielle, 1899).



**Figure 7:** Graph showing the evolution of the passenger numbers before and after the introduction of the railway in Biskra

**Source:** (HURABIELLE, 1899)



**Figure 8.** Map of the Batna Biskra Touggourt railway line during the colonial period

**Source:** (ROLLAND, 1864)



**Figure 9.** The military-railway station in Chogga during the colonial period

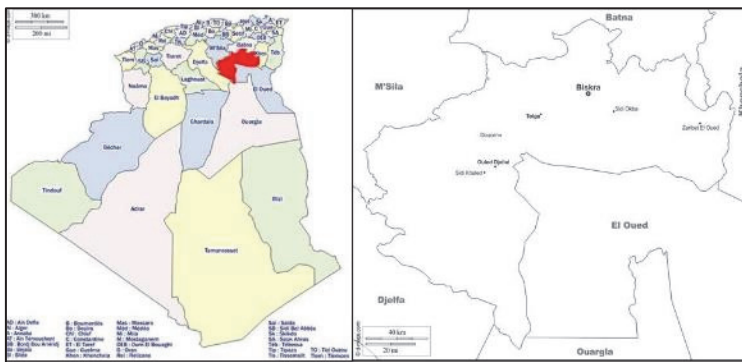
**Source:** (SNTF, 1961)



- c. Military: Biskra played a pivotal role as the embarkation point for the colonial efforts to harness the resources of the Sahara. One of the primary objectives was the efficient transportation of military forces (Rolland, 1864). An exemplification of this military strategy can be observed in the Chogga station, denoted by its isolated positioning at the southern ingress, its utilitarian purpose serving as an observation and control outpost, and notably, its defensive architectural design (Figures 8 and 9).

### 3.3 Location of the Ziban region and its railway

The Ziban region, characterized by an expanse extending from the base of the Aurès mountains, comprises a plain that spans 150 kilometers in length and varies in width from 18 to 45 kilometers. It is demarcated into four distinct sectors, designated by their geographical orientation: the Zab Rharbi or the Western sector, the Zab of the North or Zab-edh-Dharaoui, the Zab of the East or Zab-el-Chergui, and the Zab of the South or Zab-el-guebli (Figure 10). This region is home to a total of 32 oases, with the Biskra oasis serving as the central hub and capital of the Ziban (Adolphe, 1899).



**Figure 10.** Administrative map of Algeria and the Ziban region  
**Source:** (d maps, 2020)

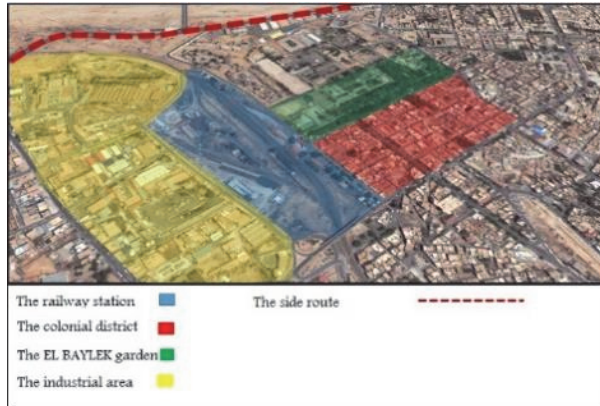


**Figure 11.** Map of railway stations in the Ziban region  
**Source:** (PASTOR, 2010)

Historically, this region featured five railway stations: El Kantra station in the North, Biskra station in the central region, Chegga station in the South, and Tolga and Lichana stations in the Western sector. Presently, Chegga and Lichana stations have been completely abandoned, while the Tolga station is inhabited due to the cessation of railway services along its route. The remaining two

stations continue to remain operational.

### 3.3 Location of the railway station in the city of Biskra.



**Figure 12.** Aerial view of the railway station area

**Source:** (Google earth Pro, 2021)

The Biskra city railway station is situated along the Saouli Cherif Boulevard, adjacent to the northern terminus of the Republic Boulevard, in proximity to the July 5, 1962 garden, which is located within the northern precinct of the city center. The station enjoys accessibility via three railway tracks, one of which establishes a connection between the city center and the city bypass (Figure 12).

### 3.4 The logic of the establishment of the railway station in Biskra.

It is imperative to ascertain whether the placement of the Biskra railway station can be attributed solely to the city's checkerboard urban plan with military security considerations (military logic) or if there are other relevant parameters at play.

At the outset of the 19th century, European cities were fortified with structures dating back to medieval periods, originally designed primarily for defensive purposes. However, with the advent of the industrial revolution, these fortifications began to serve a dual role, maintaining their defensive function while concurrently functioning as fiscal frontiers. They acted as gateways where all incoming goods to the city were subjected to a tax referred to as the "octroi" (Michaud, 2004).

In the context of Biskra, the railway station is situated in the northern part of the city (see Figure 13). Beyond the octroi principle, as it was conceived towards the conclusion of the 19th century, the station became an integral component of the city's urban landscape, contributing significantly to urban development. Additionally, the strategic military and security considerations factored into the railway's role as a protective boundary for the city, in stark contrast to the physical isolation that characterized early railway stations of that era (De Roux & Cartier, 2007).



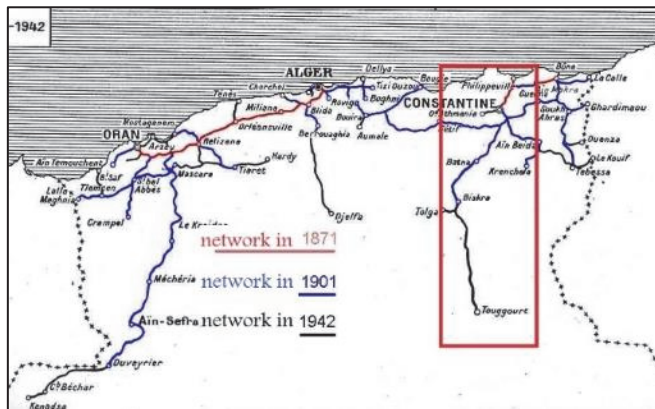


**Figure 15.** View of the passenger building of the railway station, Biskra  
**Source:** Researchers, 2020

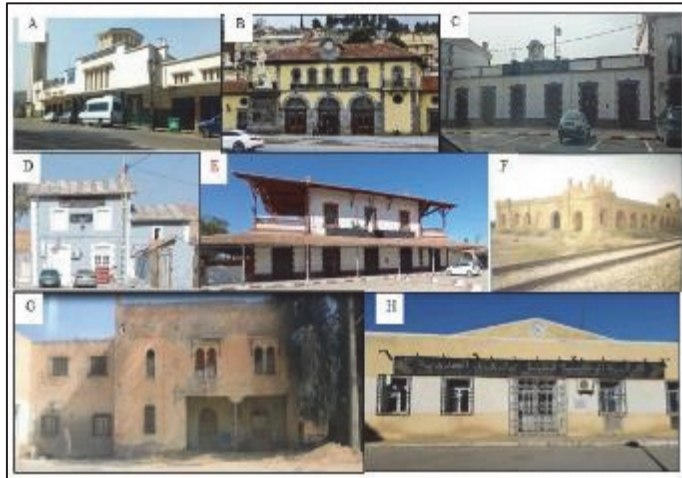
The railway axis extending from Skikda to Touggourt was constructed through the efforts of three distinct companies (Figure 16):

- The Paris - Lyon - Mediterranean Company (PLM) was responsible for the construction of the Skikda - Constantine railway line.
- The East Algerian Company (EA) undertook the development of the Constantine - Batna - Biskra railway line.
- The Administration of the Southern Territories took charge of building the Biskra - Touggourt railway line.

This multifaceted origin of the railway infrastructure accounts for the architectural diversity observed along the route, with varying degrees of monumentality and intricacy. Notably, this diversity gradually diminishes as one proceeds southward.



**Figure 16.** Map showing the Chronology of the Algerian Railway Network 1942  
**Source:** (ALGERIE Chemins de fer, 2010)



**Figure 17:** The passenger buildings of the skikda touggourt railway line and branch lines.

Considering the comprehensive development of this rail route, a venture that unfolded over a period exceeding half a century, spanning from 1870 to 1940, the Biskra station's passenger building assumes an intermediary position. It is positioned between the relatively austere original stations, namely El Kantra and Touggourt, and the imposing, monumental stations of this railway line, exemplified by the Skikda and Constantine stations.

- A. Skikda station, designed by the architect Charles Montaland in 1870 and renovated in 1937. flanked by a false minaret of 20 metres in the neo-Moorish style. (Authors, 2021)
- B. Constantine station, built in the mid-19th century, in the neo-classical style. (BAHRI, 2020)
- C. Batna station, built between 1880 and 1882, in the neoclassical style. (Authors, 2021)
- D. El Kantra station, built between 1882 and 1884, a primitive passenger station in the neoclassical style. ( Authors, 2021)
- E. Biskra station, built in 1888, in the neoclassical style. (Authors, 2020)
- F. Chegga station, built in 1897, fortified military/railway station. (ABID, 2015)
- G. Tolga station, built in 1916, Moorish style (Authors, 2015)
- H. Touggourt station, built in 1914, no specific style. (Google maps, 2017)





### 3.5.2 The used constructive system and materials

The architectural system employed in the construction of the building aligns with the standard practices of the era, characterized by a load-bearing wall structure crafted from rubble stone materials.

**Table 2.** Identification of constructive elements and materials

Constructive element	Identification	Figure
Foundations	While there is a lack of specific documentation detailing the foundation system, it is evident that the foundations were fashioned using threaded footings placed beneath the load-bearing walls.	



Constructive element	Identification	Figure
Wall Structures	Two distinct types of wall structures are discernible. Load-bearing walls, measuring 60 centimeters in thickness, were constructed using rubble stone masonry bonded together with lime mortar. These walls serve a dual role as both the building's outer shell and its principal structural support, carrying the load of the floors and the roof. Additionally, interior partitions, measuring 10 centimeters in thickness, were composed of solid bricks joined with lime mortar. The interior walls were subsequently plastered, while the exterior facades were coated with a layer of lime mortar.	 <p>Figure 18. View of interior wall</p>
Openings	The openings, including both doors and windows, feature lintels shaped in the form of curved arches designed to effectively transfer vertical loads. These openings are constructed with a vertical orientation, a characteristic guided by architectural style and notably intended to minimize the span of the lintel	 <p>Figure 19. View of the south door</p>
Flooring	Resting upon the load-bearing walls, the flooring consists of solid bricks.	 <p>Figure 20. View of the intermediate floor</p>
Roofing	The roof design encompasses two distinct types. The first type, positioned at the building's edge, presents a simple configuration with a single slope. Situated at the level of the first floor, it is supported by a metal structure resting on the load-bearing walls. This portion of the roof is covered with tiles. The second type of roofing, situated atop the building, takes the form of a double-sloped structure. It results from the amalgamation of a wooden framework for structural support and tiles for roofing material. The roof is sustained by the load-bearing walls and columns situated at the level of two terraces. The wooden truss, shaped in a triangular configuration, is central to the roof's structure and composition	 <p>Figure 21. View of the two types of roofing</p>

Source: Researchers

### 3.5.3 Decorative elements

The ornamentation employed in this edifice mirrors the decorative motifs utilized in the scant few stations constructed by the East Algerian Company, particularly drawing inspiration from the neoclassical style prevalent in public buildings of that era. This decorative scheme serves a multifaceted role, encompassing aesthetic, structural, and identifying functions simultaneously. Key decorative elements include:

- A horizontal stone band positioned at a height of 50 centimeters from the ground, demarcating the base of the walls.
- The encasement of openings with curved lintels crafted from red stone.
- The inclusion of corner chains constructed using red brick, serving to delineate the building's corners throughout its entire vertical span.
- A centrally placed clock adorning the main facade.
- The characteristic white and brick-red hues used in the facade cladding, a distinctive feature emblematic of public buildings from the same era.
- The presence of metal pillars on the ground floor, symbolically representing railway and industrial architectural elements.

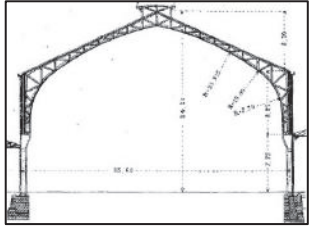



### 3.5.4 The station hall

The hall, extending along the entire length, is aligned in parallel with the passenger building, serving as a transitional area connecting the passenger building to the train platforms. This space is elevated to a height of 50 centimeters above the railway tracks, facilitating passenger access.

The hall's roofing is executed with a metal framework, adopting the innovative Dion truss system with a span of 5 meters, which represented a novel construction technique during that era. Embedded within the tile roofing, there are openings referred to as skylights, primarily intended for the purposes of smoke evacuation, ventilation, and natural illumination. The metal columns serve as integral load-bearing components of the framework structure.

**Table 3.** Identification of the station hall

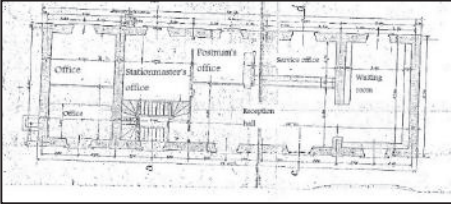
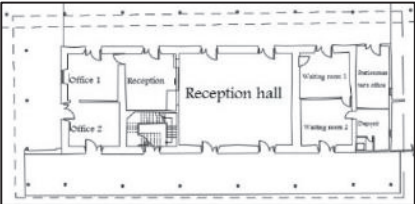
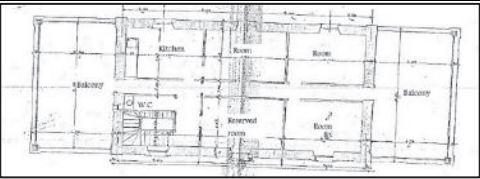
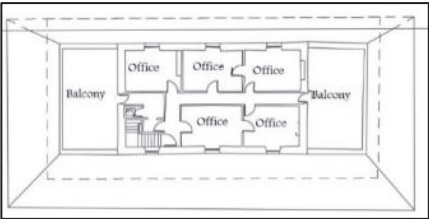
Representative drawing	real view
<p data-bbox="135 600 637 655"><b>Figure 22.</b> Representative drawing of the Dion farm - Source: (DARTEIN, 1893)</p> 	<p data-bbox="695 591 1114 646"><b>Figure 23.</b> View of the station hall - Source: Researchers</p> 

### 3.5.5 Spatial organisation.

The original layout of the station was conceived with a rational spatial organization aimed at achieving optimal functionality. The ground floor area was initially compartmentalized into three distinct sections. However, in contrast to this initial configuration, noteworthy alterations have been made to accommodate new functional requirements. For instance, the area situated at the eastern extremity of the ground floor has been expanded to serve as office space. Furthermore, the waiting room has been partitioned, resulting in its division into two separate spaces.

On the first floor, originally intended primarily for the stationmaster's residential use, substantial transformations are evident, both in terms of function and architectural configuration. Firstly, a noticeable change is the addition of a partition in the hall leading to the western terrace, effectively obstructing direct access to this area. Secondly, the layout of the spaces has been altered. In the initial plan, each space had only a single designated door, in contrast to the present layout where new doors have been introduced to establish connections between the spaces. This functional shift has entailed the conversion of the building into office spaces, necessitating modifications to all the rooms.

**Table 4.** Identification of the original and current spatial organization

Floor	Drawing
Initial ground floor	 <p data-bbox="507 471 1035 493"><b>Figure 24.</b> The initial ground floor plan 1961 - Source: (SNTF, 1961)</p>
Actual ground floor	 <p data-bbox="542 702 1000 724"><b>Figure 25.</b> The actual ground floor - Source: Researchers</p>
Initial first floor	 <p data-bbox="533 910 1012 930"><b>Figure 26.</b> The initial first floor plan - Source: (SNTF, 1961)</p>
Actual first floor	 <p data-bbox="537 1153 1008 1173"><b>Figure 27.</b> The actual first floor plan - Source: researchers</p>

#### 4. Result and Discussion

The railway heritage situated within the Ziban region, currently facing the threat of obsolescence, warrants national recognition due to its multifaceted significance. Beyond its inherent industrial symbolism, this heritage encapsulates a pivotal period in the history of regional tourism. Several factors underscore the necessity of acknowledging and safeguarding this heritage:

- Integration of railway stations within the broader development initiatives of the railway sector.
- Formulation of a heritage-centric approach rooted in historical and social dimensions, especially in the context of station recognition.
- Implementation of specific legal frameworks aimed at preserving industrial heritage, with a particular focus on railway heritage.
- Active involvement of associations and the encouragement of their contributions towards compiling comprehensive railway inventories.

The Biskra railway station, as a historical testament to Algeria, carries a profound sense of historical memory and symbolism. Its distinctive architecture harks back to the industrial era and

occupies an invaluable site within the city of Biskra. While its contemporary utility has waned, it faces the risk of experiencing a fate akin to that of the Chegga and Tolga stations in the Ziban region, where a process of disuse has already commenced. This looming disuse poses a detriment to its historical heritage. However, the station possesses the inherent potential to serve as a chronicler of a crucial chapter in humanity's history, notably the industrial revolution. It bears witness not only to Algeria's history but also to advancements in the realms of science, construction, technology, and architecture. Consequently, it exhibits the requisite attributes that merit its formal recognition and preservation.

**Table 5.** Assessed heritage values of the Ziban region railways – Source: Researchers

Heritage value	Description of the value in the case study
Historical value	Witness to a chapter in the history of the region and its industrialization
Landscape value	Designed initially on the periphery of the city, it has now become an integral part of the urban fabric and a structuring element of the city. (implantation in relation to the north-south axis of the colonial layout)
Universal value	Witness to the industrial revolution throughout the world.
Rarity value	As the passenger building of the Biskra railway station is unique in its kind (double frame and terrace)
Scientific value	This heritage can serve as a technical knowledge support for engineering, architecture and construction
Social value	As a large number of Algerians participated in the construction of the stations as workers.
Use value	In the Ziban region, the railway has facilitated the modes of travel and the transport of goods as well as the trade of dates, today it participates in oil transport and in the economy of the country
Aesthetic value	The architecture of the station is specific and can be used as a reference in architectural history catalogues

## 5. Conclusion

Within the Ziban region, the railway system represents a historically significant era, initially conceived to serve various purposes including commerce, military operations, security, and tourism. Today, it stands as an integral part of the region's history. This research sought to undertake a structured examination of the railway system, with the objective of unveiling the heritage values inherent in this often overlooked legacy. The Biskra railway station serves as an illustrative case, shedding light on the rationale behind the establishment of railway stations during the 19th century and underscoring the architectural diversity that characterizes these extant structures within the Ziban region.

Furthermore, with regard to the available data, industrial heritage, specifically railway heritage, continues to endure a lack of acknowledgment and is frequently disregarded in Algeria. Nonetheless, the recognition of this heritage hinges upon various policy measures, including the establishment of a legal framework tailored to its specific management. Additionally, it requires a social impetus for popularization and heritage preservation, as well as an active role played by associations in its safeguarding and valorization.

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