



# The meanings and development of toponyms in North Africa

(A case study of the Zab and Aurès regions in Eastern Algeria)



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## Abstract

This study seeks to analysis toponymy in the regions of Zab and Aurès, through the examination of place names and their meanings within their historical and geographical contexts, and by exploring their relationship with demographic and cultural transformations. The study relies on the descriptive-analytical method to deconstruct geographical names, while employing the historical method to trace the evolution of naming and the influence of political and linguistic factors on it. Geographical analysis is also used to understand the role of topographical and climatic characteristics in shaping local toponymy.

**Keywords:** Toponymy – Zab – Aurès – Amazigh – Linguistic Changes – Historical and Geographical Analysis.

## Introduction

Place plays an important role in human life, as it is closely connected to him. The geographical meanings of place and their designations constitute part of the local culture, reflecting the relationship between man and his surrounding environment.

Studying place names, understanding their meanings, and delving into them allows us to update our historical knowledge in this vast field, as it helps us to better understand our history and culture. It also assists in comprehending the interaction between humans and the space in which they carry out their various activities, and the impact of this place and geography on different historical events.

This study seeks to trace the development of these names and analyze their geographical and historical significances.

## **Significance of the Study**

The importance of this study lies in:

1. The significance of toponymy in the study of history and geography, as it helps in reconstructing the historical trajectories of peoples and civilizations.
2. Documenting geographical names in Zab and Aurès, given that many of them are subject to distortion or disappearance.
3. Analyzing the impact of natural and human factors in the formation of names, including topography, climate, and colonial policies.
4. Contributing to toponymic studies in Algeria and North Africa, where such studies are still limited compared to other geographical and historical fields.

## **Research Problem**

How does the study of toponymy contribute to updating historical and geographical knowledge of the Zab and Aurès region?

## **Research Questions**

1. What are the toponymic characteristics of place names in Zab and Aurès?
2. How have geographical and historical factors influenced the evolution of these names?
3. To what extent do place names reflect the cultural identity of the region's inhabitants?
4. What is the impact of colonial policies and linguistic changes on place names?

## **Research Hypotheses**

1. Place names in Zab and Aurès reflect a historical continuity that extends back to the Numidian and Roman eras.
2. Geographical factors such as topography and climate influence the toponymic designation of the region.
3. French colonialism played a major role in reshaping place names according to francization policies.
4. Many geographical names still retain their Amazigh roots despite attempts at Arabization and colonial distortion.

## **Research Methodology**

The study relies on a set of integrated approaches:

- **Historical method:** to trace the evolution of geographical names across different periods.
- **Geographical method:** to analyze the relationship between names and natural topography.
- **Toponymic method:** to understand the origins of words and their semantic transformations.
- **Field studies:** through interviews with local inhabitants to document original names.

## **Scope and Limitations of the Study**

### **Scope of the Study**

This research examines the toponymy of the Zab and Aurès regions in Eastern Algeria, with a particular focus on hydronymic and place-name patterns. The temporal scope extends from the Numidian and Roman periods to the contemporary era, enabling a diachronic analysis of linguistic and cultural transformations in the region's toponymic landscape. Geographically, the study is limited to the Zab plains and the Aurès Mountains, including their principal valleys, wells, irrigation systems, and associated settlements. Linguistically, it encompasses Arabic, Amāzygh (Shāouia), and French colonial influences on place names, with special attention to hybrid and transformed forms.

### **Limitations of the Study**

Several limitations must be acknowledged. First, the availability and consistency of historical records on hydronymy are uneven, leaving certain periods and areas underrepresented. Second, fieldwork was constrained to accessible villages, oases, and archival repositories, which may not fully capture the diversity of the region's toponymy. Third, some etymological interpretations remain provisional due to gaps in reliable linguistic and historical evidence. Finally, the study does not aim to catalogue every existing place name exhaustively but instead selects representative cases to illustrate broader patterns and trends.

### **Previous Studies**

Previous toponymic studies indicate that North Africa witnessed significant changes in geographical naming due to colonial influences. Among the most notable works addressing this subject are:

1. The studies of Ibn Khaldūn on the names of tribes and Maghrebian regions.
2. Studies on colonial toponymy in Algeria during the French period.
3. Recent academic research in Algerian universities on toponymic transformations.

### **Structure of the Research**

The research is divided into several main axes:

1. **Theoretical Framework:** Definition of toponymy and its importance.
2. **Geographical Analysis:** The impact of topography and climate on place names.
3. **Historical Analysis:** Tracing the development of place names in Zab and Aurès.
4. **Study of Toponymic Changes During and After the French Colonial Period.**

### **Chapter One: Toponymy of Mount Aurès**

#### **First – Defining the Geographical Scope of the Study Area**

In this section, it is necessary to define the geographical location of the Zab region, which lies between latitudes 35° and 34°30', and between longitudes 2° and 4° east of Greenwich. Its capital is the city of Biskra, located in southeastern Algeria. Zab, in plural form *Ziban*, has Biskra as its center, as mentioned by Ibn Khaldun in the 8th century AH / 14th century AD:

“This land, Biskra, is the capital of the Zab region in this era. Its boundaries stretch from Qasr al-Dousan in the west to the villages of Tanuma and Badès in the east, separated from the plain known as al-Hodna by a mountain extending from west to east. ... This Zab is a vast homeland comprising numerous neighboring villages, each known as a Zab. The first of them is Zab al-Dousan, then Zab Tulqa, followed by Zab Milila – or Mlili – then Zab Biskra, Zab Tāhuda, and Zab Badès, with Biskra being the mother of all these villages.”(Ibn Khaldun, 1999, p. 423). as for the second area of study, which is geographically connected to Zab and undoubtedly influences it, it is the Aurès (Ibn Khayyat, 1985, p. 159; Ibn Abd al-Hakam, n.d., pp. 246-247; al-Baladhuri, 1987, pp. 316-318). The meaning of the word “*Aurès*” is noteworthy. In the sixth century AD, it was pronounced *Aurasionos* or *Aios Oros*, which is the ancient form recorded in historical sources, as mentioned by the Byzantine historian Procopius. A third pronunciation, *Auraios Oros*, was later used in the French language in the following form: *Aurès* (Auris). The term seems to be of ancient usage, and in this sense it means “mountain.” Consequently, it underwent alterations with the succession of rulers and occupiers of this land, leading to a degree of distortion.

The origin of the word is believed to be Berber, initially referring to a mountain north of Zab currently Mount Aurès where the name shifted from the part to denote the whole. The chain of these mountains forms a quadrilateral, extending from north to south and from east to west for about 65 miles, covering in the southern part of the Constantine region an area of about 3,600 square miles. At the western end of these mountains lie the low hills of Zab, while in the east Wādī al-‘Arab separates the Aurès Mountains from Mount Shashar. To the north, these mountains rise above the Sabakh plateau and the Taraf basin, whereas in the south they border the Sahara.(Robert (C), 1955).

## **Second – Reading the Place Names of the Aurès Region in Their Linguistic Context**

If we take a look at maps of different regions, we quickly notice that each area has a particular type of geographical names, characterized by a set of phonetic and linguistic features that make them distinctive and reveal a kind of “family resemblance.” Very few of these names carry a precise meaning; most are proper nouns that do not refer to anything outside the specific locality. Nevertheless, from a linguistic perspective, these names can be extremely important despite their difficulty, for they are a direct expression of the genius of a given community. They often preserve some archaic features that the language itself has lost, since language is always in flux, subject to many external influences, and can change significantly in a relatively short period without the ethnic identity of the community being noticeably altered. (al-Baraka et al., 2012, p. 25)

Place names, without doubt, also change; however, it cannot be denied that they possess a greater degree of resilience. They stand as true witnesses of the past, representing for us a state or fragment of language of varying antiquity. In certain circumstances, their value becomes even greater. In the aftermath of wars, the defeated population might be destroyed or assimilated, and their language may vanish or fall into oblivion. The victors, however, rarely bring more than a handful of new designations to the lands where they settle. Most of the old names remain in use albeit more or less modified to adapt to the spirit of the conquerors. Thus, the roots of the primitive language, which sometimes constitute the only surviving “documents,” remain visible before the eyes of researchers. (Mercier, 1897, p. 174)

This is not the case when an artificial naming is imposed by decree of authority, as repeatedly occurred in Algeria during the Roman and even the colonial period. For example, the city of *Cirta* was renamed

*Constantine*; *Bona* became *Annaba*; *Rusicada* was replaced with *Skikda*; and even the title *Ziban* was added to the original name of Biskra. Place naming, therefore, is hardly ever a matter of fashion or irony. Rather, there is no doubt that all these names originally carried meaning.

If we turn, for example, to the Amazigh language which, like colloquial Arabic, was historically unwritten—we find that both languages have undergone relatively few changes over the centuries. Of course, we set aside here the influence exerted by Islam on them in the modern era. Once these premises are accepted, it becomes clear that a careful study of geographical names in North Africa should lead to certain conclusions. Not everything is open to interpretation, and many terms will always remain obscure. The field of hypotheses is extremely broad, and etymological errors are sometimes possible and difficult to avoid entirely. Our intention here is not to carry out such an exhaustive task, but rather to sketch a brief outline of it with regard to the Aurès and Zab regions, where we had the opportunity to reside for several years. (Mercier, 1897, p. 176)

Up to now, this geographical area has not been extensively studied perhaps due to its remoteness and the difficulty of transportation for those interested in researching it in the past. Yet it is one of the most fascinating regions in North Africa, whether in terms of the historical monuments it contains or the distinctly Berber character of its inhabitants and the language spoken there.

Since we are dealing with populations that have had little to no contact with one another for thousands of years, and that could not exert mutual influence, one must conclude either that the language has remained essentially the same since ancient times, or that these dialects, after changing, evolved in parallel. The second hypothesis is difficult to accept, given the vastness of the territory, the striking variations in land formation, and the highly diverse climatic conditions. (Mercier, 1897, p. 176; al-Baraka et al., 2012, p. 71)

## **Second: Meanings and Characteristics of Amazigh Geographical Names – An Analytical Study**

At first glance, when examining the map of the region during the colonial period, one notices that many place names became well known in their French form. Some were transformed, while others retained their local designations. Certain terms that have become familiar in our daily usage such as the cities of Batna, Khenchela, and Biskra are in fact nothing more than precise reproductions of local concepts.

Thus, we find ourselves faced with a corpus of authentic African names, the origin of which needs to be investigated. A small number of these names are purely Arabic and easy to identify. For example, consider **Table 01:**<sup>8</sup>

<b>Arabic Term</b>	<b>English Term</b>	<b>French Term</b>
al-Qanṭarah	The Bridge	Le Pont
Jabal Aḥmar khḍw	The Red Mountain	La Montagne rouge
bny bwslymān	Sons of Abou Slimane	Les Fils d'Abou Slimane
ālwādy al'abiḍ	The White Valley	La Rivière blanche

This language is very well known, such that there is no need to question it. We must, however, be careful not to confuse those names with others that appear to have an Arabic form, but which do not convey any understandable meaning and cannot be traced back to any known Arabic root. Examples include:

- Biskra;
- Ghasira, etc.

This Arabic appearance, which is often marked only by the ending "ah", conceals an older and genuinely local form, used by the inhabitants of the country among themselves, while leaving the other form to foreigners, whether Arabs or Europeans. Thus, Biskra corresponds for them to Biskerth (Beskerth); and Madrouna to Hamdrount (Hamdhrunt or Thamdhrunt depending on the regions, derived from the word yudhren, meaning "heart"). (Mercier, 1897, p. 176; al-Baraka et al., 2012, p. 71)

Through these examples, we see that the Arabic "ah" represents the Amazigh feminine suffix "ith" (th). However, this is not always the case. For example, Ghasira corresponds to Irasiren (Ighasiren as a toponym and Ighusar as the name of its inhabitants). An Arabic word is often appended to an Amazigh word. For instance: Ayn tāmlālt, Jabal bwāghyāl (unclear, assumed to be Bu Yghial), Theniet Tisiwanin, etc.

Sometimes the Arabic and Amazigh names are mere translations of each other, as in *Wād Sūf* and *Djebel tāwryryt*. It is even possible to find three successive layers of the same meaning on our maps: *Source Aïn Thala* (note: *Aïn* is the Arabic translation of *Thala* in the Chaoui variant). This, in brief, represents the contributions made by Arabic to local toponymy.

This contribution may seem considerable, but it is less than one might think. Whenever the local population spoke to outsiders, they tried their best to include as many Arabic words as possible in their speech, believing that in doing so they were drawing closer and making their language easier to understand. When it came to naming, they often translated the original Amazigh term entirely into an Arabic word—or several Arabic equivalents. Thus, *Souf Amellal* (*Amellal*: since in the Chaoui variant the “a” is lengthened and pronounced as *ā*) in Amazigh becomes *al-Wadi al-Abyad* (*the White Valley*) in Arabic.

From this stems the duality of a large number of local toponyms. It creates the impression that the map is saturated with Arabic designations, while alongside them and independently exist others with a clearly Amazigh character. More often than not, it is beyond doubt that these are the very same names that can also be found in other regions, such as Kabylia, Aurès, the Maghreb, Touat, the central Sahara, and even along the banks of the Niger and the Nile. (Mercier, 1897, p. 179)

In Amazigh, as in Arabic, place names are of the feminine gender. They are characterized by this feature:

Word in Amazigh (at the beginning or end of the word, often in both)	Singular (by adding Th or T)	Plural (prefix ti and suffix in)
Thaderr’alt (village belonging to the Ghassira region)	At the beginning: Th – TH, at the end: T	
Aïn Thaber’a (village belonging to the Ghassira region) / Aïn Thabegha (in Tichawith: Thit n Thabegha)	At the beginning: Th – TH	
Djebel Tafrent (spring of al Ahmar Khaddou)	At the beginning: T – T	
Theniet Tyzwggāryn (pass of Beni Bouslimane)		Ending: in
Djebel Thirard’in (mountain of Shishar)		Ending: in

Hak'liâthen tir'animin (village of Ouled Daoud) / (Heklaïten Tyghānymyn in Tichawith: Haqliath n Tyghānymyn / fortress of Tyghānymyn)		Ending: in
Djebel bou Telar'min (mountain of Oued Abdi)		Ending: in

We do not wish to provide further examples, but it is important to know that this is the general characteristic of Amazigh place names, and it is the criterion that will allow us to distinguish them in many cases.

Finally, some geographical names derived from colors refuse the feminine form. In most cases, color names function as adjectives and agree in gender and number with the nouns they qualify. For example:

Suf Amellal (in Arabic: the White River).

‘Ayn tāmīlālt (in Arabic: the White Spring) (originally Hit Hamellalt or Thit Thamellalt, depending on the region).

Wellan Meiloun (in Arabic: the White Springs) (in Adrar Ahnit) (originally Hit Hamellalt or Thit Thamellalt, depending on the region).

Adrar Souwit (in Arabic: the Black Mountain) (near Ras al-Abyad). (Note: if it truly means “the Black Mountain,” the equivalent in Chaouia would be Adrar Abrekan or Adrar Aghegwāl).

When the name of the color is expressed on its own, whether in singular or plural, it is always feminine. For example:

Thizugwarin (in Arabic: the Reds) (in Arabic: the plural of the sidr tree → sidrat).

Tāmīlālt (in Arabic: the White [feminine]) (the masculine form is Amellal, and the feminine is Thāmīlālt).

It should be noted, in conclusion, that some names display Berber feminine characteristics while being themselves foreign, often Arabic. This is due to the fact that contact between the two languages has been very close for centuries, and a kind of mutual infiltration occurred: even if Berber roots took on an Arabic form, purely Arabic words were often surrounded by Berber affixes. For example:

Geographic Name	Origin	Interpretation
Takrumat (Thakrūmat) (Note: Based on what I have found here, there is no relation between the two names: the name of the village comes from the designation of Wadi Abdi, i.e., Ighzer Na‘abdi, which is the name of the tribe inhabiting it)	Arabic	Village of Wadi Abdi, Berberized from the Arabic word "al-Raqba" (the neck)
Thizi in Tamslukhat (originally: Thizi n Tamslukhth) (Note: the meaning of the name may be Thamslugth from <i>yaslugh</i> meaning “to stick/adhere”)	Arabic	"Mountain of the flayed," in Arabic "Muslūkhath al-jild" (stripped of skin)
Tifartasayn (Thifrdāsīn)	Arabic	Feminine Berber plural derived from the Arabic word "Asla‘" (bald)

- **Takrumat**, village of Wadi Abdi, Berberized from the Arabic word "al-Raqba" (the neck). (Note: Based on what I have found here, there is no relation between the two names: the name of the village comes from the designation of Wadi Abdi, i.e., Ighzer n Ah Abdi or n Ath Abdi depending on the regions, which is the name of the tribe inhabiting it).

- **Thizi in Tamslukhat** (Thizi n Tamslukhth), from “*mountain of the flayed*”, in Arabic “*skin*”. (Note: *Thamslukhth* comes from the Arabic verb *salakh* “to flay/skin,” and its equivalent in Tashawit is *Azi* meaning “flaying,” and *iuzi* meaning “he flayed.” The meaning of the name may also be *Thamslught* from *yaslugh*, meaning “to adhere/stick.”)
- **Tifartasayn** (Thifrdāsīn), feminine Berber plural from the Arabic word “*Asla*”.

We must recognize that there is a large number of local names that do not fall into any of the above-mentioned categories and do not offer any logical meaning in Berber. As a result, either they are related to a root that has lost its meaning, or they themselves have undergone significant modifications to the point of making it difficult to recognize their origin. Nevertheless, it is also legitimate to question whether these names might originate from a language foreign to Berber, and whether they represent remnants of a toponymy preceding the current one.

This issue naturally leads us to address the ancient geographical place names that have reached us. We have already stated above that the Romans imposed only a relatively limited number of geographical terms in North Africa. In the vast majority of cases, they merely translated pre-existing names. What could these names have been? Since the Carthaginians had many colonies along the coast and in present-day Tunisia, it is possible, indeed probable, that a number of them were of Phoenician origin. Thus, *Gesenius* provided a considerable number of derivations from the Phoenician language. But we hasten to add that only a few of them are acceptable.

Furthermore, the Carthaginian occupation was limited to certain coastal points and to a strip of land in Tunisia which later became the Roman province of Africa Propria. Therefore, it is unlikely that any of the sites located deep in the interior ever bore a Carthaginian name. It is true that the Phoenician language was widely spoken in the country, even advancing under Roman rule. This is attested by the many Phoenician inscriptions discovered in recent years.

Nevertheless, we strongly doubt that this language ever reached the Aurès, meaning that it was understood and accepted by the people, as is required in order to form a toponymy. Therefore, as a general rule, we shall not seek the origin of ancient geographical names in the Phoenician language.

## **Section Two: Hydronymy in the Zab Region**

### **1 – Overview of hydronymic names mentioned in written sources:**

Anyone interested in toponymy must base their work on what is provided by all written sources documents, manuscripts, maps, and others in order to find the original name and trace its development. Ancient historical periods and written sources provide important references for those engaged in hydronymy. Based on this, the significance of diverse sources lies in their ability to provide information with a hydronymic dimension, especially when supported by field investigations connected with philological research. (Ibn Khaldun, 1999, p. 423)

#### **1 – Waters of the Valleys and Rivers:**

Since this research relied primarily on the works of Arab geographers who lived between the 9th and 16th centuries AD as a main link between antiquity and the modern centuries in the region of study it was necessary to analyze what they wrote on the subject. Their books were used to extract the toponymic names, each of which is clarified in its respective text.

We begin with the statement of al-Bakri:

“From Biskra to Tahouda, which abounds in fruits, palm trees, and crops, around it is a suburb enclosed by a trench surrounding the entire city. There is a river that flows into its interior from Mount Aurès. When its inhabitants were at war with their neighbors, they would divert the river water into the surrounding trench, which supplied them with drinking water and protected them from their enemies.” (Al-Bakri, 2003, p. 177,255)

And in the words of the author of *al-Istibsar* regarding the land of al-Zab:

“...It is a land of many cities, vast districts, and continuous settlements, containing flowing waters, rivers, and numerous springs...”(al-Istibsar, n.d., p. 171).

And *al-Bakri* also said about Badès:

“...And from there to the city of Badès is a one-day stage. In the city of Badès there are two fortresses, a congregational mosque, markets, plains, and magnificent fields where they cultivate barley twice a year, with abundant flowing waters at their disposal...” (Al-Bakri, 2003, p. 257)

## **2 – Waters of Wells and Their Systems:**

The Arabic sources did not provide us and here I mean the geographical and historical books, as we have pointed out when discussing the valleys and springs of al-Zab with sufficient information about the names of the wells, their locations, and their methods of exploitation in the medieval period, except for what *al-Bakri* mentioned when he referred to Tahouda, where he said:

“...In the city of Tahouda there is an inexhaustible ancient well and many other wells, surrounded by numerous gardens containing various kinds of fruits and diverse crops...” (Al-Bakri, 2003, p. 255)

## **3 – Canals and Water Channels:**

The use of water channels (*sawaqi*) and waterwheels (*dawalib*) was not a new or sudden phenomenon in al-Zab; rather, it indicates the existence of deep-rooted traditions dating back to the Islamic medieval period.

This unit of measurement was widely used during the Ottoman era, and traces of the main water channel still remain to this day in the place called *al-Farḍ* (a measuring instrument), located in the 5th of July Garden (*Jinan Baylik*) in Biskra. There exists a large canal which the colonial administration transformed into the main nucleus for water distribution in the northern part of the Biskra oasis. After this nucleus had first been in Lower Biskra where 16, as al-‘Ayyashi mentions in his travel account of the year 1059 AH,

“They built a strong fortress at the head of the water that flowed into it, thereby taking possession of the land and causing harm to its people...”(Al-‘Ayashi, 1996, p. 540).

And as al-Warthilani also notes (Al-Warthilani,2006, p. 117), the drinking water of the city of Biskra seven centuries earlier came from a valley or, as al-Bakrī puts it (Al-Bakri, 2003, p. 255), “...a river that descended into its interior...”

The most famous water channels (sawaqi) are those found in the oasis of Khanqat Sidi Naji, which in earlier times was known to have six channels drawing and diverting their waters from the valley through six dams. These channels are:

- Saqiyat al-Ghadira
- Saqiyat Qat al-Wadi
- Saqiyat Musa
- Saqiyat al-Jur'a
- Saqiyat Mihriz
- Saqiyat al-Tubba
- 

#### **4 – Water Conduction Canals:**

The hydraulic pattern and technique that is truly impressive and astonishing one which no researcher in this field can rely upon through theoretical study alone without witnessing it firsthand is this remarkable water system, which the local inhabitants call Qanariya. It is also referred to as Baradez (Baradez, 1949, p. 129) and Berben (Berbent, 1964, p. 455) within the framework of the well-known foggara model.

Through our survey and field observation of this system and its technique, we noted that its remains are spread along both banks of Wadi al-Arab, south of the oasis of Khanqat Sidi Naji. Through our survey and field observation of this model and its technique, we found that its remains are spread along both banks of Wadi al-Arab, south of the oasis of Khanqat Sidi Naji.

#### **Third – The Specificity of Water Names and Their Physical Characteristics in the Arabic Linguistic Context:**

Place names stand as evidence of toponymic continuity in the Maghreb across time and space. A large number of these Arabized names are derived from ancient Libyan-Berber, Phoenician, or Greco-Latin origins. This continuity is also manifested in the unity of place names throughout the Maghreb, which reflects the unity of civilization. It suffices to open any book of *al-Masalik wa-l-Rihla* (routes and journeys) to confirm and interpret these shared names found across the western Islamic lands by means of the very rich Arabic language, whose vocabulary blends together in a remarkable way.

It has been observed in some Arabic sources that there is a relationship between the physical characteristics of a water source and the linguistic features of its name (Hasan, 2004, pp. 10-11) . For example, if we take *Kitab al-well* (“The Book of the Well”) by Ibn al-Arabi (d. 150 AH), which is one of the earliest Arabic works dealing with linguistic expressions related to wells especially considering that Ibn al-Arabi possessed deep knowledge of hydraulic engineering ,we find that his book enriched the Arabic language with new vocabulary and concepts related to wells.

The richness of the practical and technical details presented in the book demonstrates the advanced level achieved by hydraulic engineers. The work contains around ninety different terms describing the conditions and varieties of wells, and seven graded terms specifying the suitability of water for human consumption (Baghdad, 1993, pp. 202-2010) . These can be summarized in the following table:

<b>Word</b>	<b>Meaning</b>
well Twa (plural: Atwa)	A well lined or built with stones.
Rakiya	A well, whether with little or much water, not lined with stones; usually referred to as a jubb (cistern).
well al-Safa	The opposite of a stone-lined well; safa means it is dug into the rock.
well Zajira	A well that produces a sound when the pulley wheel rubs against the wooden piece it passes through during the process of drawing water from the well.
Al-Jabiya	The basin into which water is collected for camels, or a large reservoir.
well la tanzif (Watna)	A well or water source that never runs dry; also referred to by the foreign term "artesian well."
well Awaliya	An ancient well.

**Table 01:** Well Terminology

As for the wells mentioned in Tables 01–02, some of them express the method of lining the internal walls of the well. These are three terms (*Twa – Rakiya – Safa*), in addition to the materials used, whether stone or wood, and their proportion. *Twa* refers to a well lined with stones; *Bir al-Safa* is a well dug into the rock; whereas *Rakiya* generally refers to a *jubb* (cistern). As for *Zajira*, its name is associated with the process of drawing and lifting water from the well using a bucket and pulley, and it is closer in meaning to a “open well.” (Al-Nizwi, 1983, p. 10) *Rass* relates to its size and efficiency in terms of the quantity of water it contains. Finally, *al-Jabiya* is considered one of the well’s appendages,

#### **Fourth – Evaluation of the Hydronymic Material Provided by Arabic and Foreign Sources:**

When examining the sources from which the geographical names were drawn most of which consist primarily of travel accounts and transmitted reports it becomes clear that the names handed down to us are few in comparison with the reality on the ground, that is, with the numerous names contained in the Zab region. They represent only a small portion of them.

The difficulties in evaluating this toponymic material mentioned in the various sources can be identified in two main forms:

**1 – Geographical difficulties:** Some areas and towns have disappeared entirely, leaving their locations completely unknown, such as *Tanuma*, or they are identified only conjecturally. This creates a gap in the study of hydronymic toponyms. Moreover, certain places mentioned by the geographers later lost their significance, dwindled, or were abandoned, making it difficult to locate them on maps. In addition, the names of some places have changed, becoming mixed with Berber or Latin terms, which complicates their identification particularly in the case of smaller villages.

Geographers sometimes mention names without providing any information about their locations, as is the case with al-Bakri. This style is well known in the literature of medieval historians. To remain with Ubayd Allah

al-Bakri in the same region of al-Zab: after mentioning the city of Biskra, he adds, “Among its towns is the city of Jamuna.” Elsewhere, he mentions *Qaytun Bayada*. Where is this Qaytun Bayada on the present-day map? In addition to the previously mentioned *Tanuma*, or *Jabal Baziqizi*, in connection with the strange story of the murdered man (Al-Bakri, 2003, pp. 139-169), or *Ayn Arban*, or the city of *Marmanjina* ( Same reference, p. 140) , and many others...

## 2 – Methodological difficulties:

Among Arab geographers, place names often appear in different forms. The reason may lie in errors of transcription, a misunderstanding of the name, or the transmission of different reports. For example, the town of *Malili* is sometimes found in Ibn Khaldun as *Malila* (Ibn Khaldun, 1999, p. 423).

It is also worth noting that many geographers recorded names according to the rules of pronunciation in Classical Arabic, which often does not correspond with the local pronunciation that we still hear today (Al-Hilu, 1999, pp. 41-42). (Does this Mashriqi approach to recording apply equally to local names in the Maghreb?)

## 3 – Compound Names:

One of the most prominent phenomena in geographical names is that of compound names consisting of two words. This is not a modern phenomenon but goes back to ancient Semitic times, where we also encounter it in Akkadian and Canaanite names, and through all the other Semitic languages, up to Arabic.

Thus, the words added in these compounds are a mixture of Arabic and pre-Arabic elements. In general, the names are either compound in their original form i.e., at the time of naming or a word was later added to the original toponymic name. The added word may sometimes merge with the original name, partially or completely, resulting in a single word (Al-Hilu, 1999, p. 45).

Below is a presentation of the most important words that enter into hydronymic compound names, as illustrated in this table:

Word	Explanation
<b>(Well)</b>	In Arabic, as in Aramaic and Canaanite: Bi’ir – bira. The word is used in place names, and often a village is named after a well that originated nearby, such as the village of Bi’r al-Na‘ām (north west of al-Zab). The meaning of the name well al-Naam can have one of the following two explanations: The first interpretation is that the name refers to the presence of ostriches (Na‘ām) in the area where the well is located, hence it was called well al-Naam (Well of the Ostriches). The second interpretation is that the name refers to the abundance of water in the well, since the subsoil is rich in water (Researcher, 2025). The entire western Zab up to the city of Biskra is still supplied with water from well al-Naam because of its freshness and lightness, which we have verified first-hand. (Khadraoui, 2008, p. 132)
<b>(Pond)</b> (Birkah)	An Arabic (Birkah)usage referring to small water surfaces, natural or artificial. Its meaning differs from the geographical sense of a lake, which was often used by Arab geographers (Al-Hilu, 1999, p. 47). The use of bond remains locally restricted or specific, as we found clearly in central al-Zab, such as pond al-Jarab, which is a group of saline water ponds unsuitable for drinking or domestic use, but suitable for therapeutic purposes in treating certain skin diseases. (Researcher, 2025)

<b>(Irrigation Channel)</b>	This designation does not necessarily refer to a specific village or town but can serve as a description of an area of land known for abundant irrigation. However, despite the many irrigated lands, places bearing this designation are few in the Zab region. We observed some Irrigation Channel in Eastern Zab (Baradez, 1949, p. 165; Berbent, 1964, p. 187), especially the well-known ones in the old village of Khenqah Sīdī Nājī. Foreign sources also mentioned famous Irrigation Channel, most of which have disappeared, such as: • Irrigation Channel al-Ghadīra: named after ghadira, a small pond where water gathers, which was its source. • Irrigation Channel Qat al-Wadi: its toponymic name is linked to its location near Wād al-‘Arab. • Irrigation Channel Musa: its name is associated with a local figure. • Irrigation Channel Muhriz: one of the most famous Irrigation Channel, named after a descendant of the oasis founders. Its fame stems from the fact that in the past it caused many disputes between Khenqah, the oases of Liyana and Badès, over its waters.
<b>(Flood)</b>	A village in the Zab south east (Google Earth, n.d.) . The name Flood is purely Arabic ( <a href="http://Almaany.com">Almaany.com</a> , n.d.), referring to the fact that this low-lying area near Wadi Righ was often flooded by its waters (Google Earth, n.d.).
<b>(Underground Water Channels)</b>	Its name derives from the verb faqara (“to impoverish”), carrying two meanings: (1) associated with poverty, because constructing a faqara impoverishes its owner due to the heavy expenses; (2) derived from the verb hafara (“to dig”), since a faqara consists of wells dug in the valley bed at intervals (Ibn Manzur, n.d., p. 63), connected by a channel allowing water to flow from one well to another. In our case study, they appear on both banks of the valley (Baradez, 1949, p. 192) (see Fig. 02).
<b>(Spring)</b>	A common Semitic term, hence naturally part of water-related toponyms in all Semitic languages. The number of places named with spring is countless, as springs are abundant. In the study area, examples include (Al-Hilu, 1999, p. 52) : spring al-Naqa (She-Camel Spring), spring al-Sukhuna (Hot Spring), and spring al-Maliha (Salty Spring).
<b>(River)</b>	A common word in ancient languages: in Akkadian na...ru, in Canaanite and Ugaritic inscriptions nahr, and in Aramaic and Syriac river (Al-Hilu, 1999, p. 285).
<b>(Valley)</b>	A purely Arabic term, sometimes replacing the genitive complement in geographical names. Although valleys exist in all mountainous areas, Arab geographers rarely mentioned them. In the study region, two are particularly notable: valley al-Arab in the eastern Zab and valley al-Abyad. Both originate in the Aures Mountains and flow into Shutt Melghigh (Google Earth, n.d.; Abu al-Abbas Ahmad, 1997, p. 285) .

**Table: 02** Hydronymic Toponymic Terms

## Conclusion

At the end of this research, the results can be summarized as follows:

- The study showed that hydronymic toponymy in the Zab region reflects the history of the area, its civilization, and the environment and culture of the local population. The names of wells, valleys, and irrigation channels such as Wadi al Arab, Wadi al Abyad indicate the importance of these valleys in the economic and social life of the region. Similarly, the names of wells such as Bir Awliya, Bir La Tanzif, Bir al Safa, and Bir Zajira reflect the relationship between the physical characteristics of the water source and the linguistic features of its name. We have highlighted them as they are connected to the element of the specificity of hydronyms and their physical attributes in the Arabic linguistic heritage. As for irrigation channels, names such as Saqiyat Qat al Wadi, Sāqīyat Miḥriz, and Musa reflect the association of personal

names with their construction and the role of individuals in maintaining them. This compound linkage between the irrigation channel and the proper name has endured for centuries.

- Hydronyms in the Zab region are linked to the characteristics of these water bodies, such as their size, location, and methods of use. The names of large rivers such as Wadi al Arab denote their size and vital role in the region. The names of deep wells such as Bir La Tanzif reflect their abundant waters. As for the irrigation channels and underground canals such as al Guanariya (Foggara of Zab) and Saqiyat Mahriz, they express the methods of water exploitation.
- Hydronyms in the Zab region reflect the interaction between humans and the environment. The names of valleys and canals highlight the reliance of local inhabitants on water for agriculture, while the names of wells and irrigation channels reflect the locals ability to adapt to the harsh desert environment.

## Discussion of Results

These results highlight the importance of studying hydronymic toponymy in understanding the history, civilization, environment, and culture of local communities. Such names reflect the relationship between humans and their environment in both the past and the present. They can also provide valuable information about the development of local communities and their interaction with the surrounding environment.

Based on these results, we recommend conducting further studies on hydronymic toponymy in other regions. We also suggest carrying out field studies to collect more information about these names and their historical and cultural meanings.

In conclusion, hydronymic toponymy is not only a valuable tool for linguistic and historical research but also offers a unique perspective on the dynamic interaction between language, culture, and the geographical landscape. As we continue to delve into the rich fabric of toponymy, we are invited on an exciting journey to shed light on the hidden stories and relationships embedded in these names, enriching our understanding of both the past and the present.

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