Volume 2 – Issue 18



The importance of customary law in the oasis space in Algeria

(Case of the Touat region)

Benslimane Abdennour

Lecturer and researcher, University of Saida, Algeria Email <u>benslimaneabdennour79@gmail.com</u>

Abstract:

IJRSP

Touat's interest as a hub of secular communications between the Maghreb and Sudan has long been known. Its location in this strategic commercial space has long been an important element in the socio-economic prosperity of this region. The latter was not only linked to these external factors, but also a fertile land, full of diverse agricultural products and ancestral know-how.

Indeed, the Touat brings together a series of oases, based on an original traditional hydraulic system, known as foggara. It is ultimately the source of life for the Sahara, which has dragged on for eleven century, to satisfy peasants, with a right of ownership, registered in a document called Zemam.

Our intention here is to go back in the historical evolution of this ancestral heritage of the foggaras in the region of Touat, a system which consists of a traditional exploitation of water and soil, based on an ingenious method of collecting and sharing water. , exemplary social justice and rigor in the various tasks of maintaining and preserving the oasis way of life in the Sahara.

Keywords: Algerian Sahara, Touat, oasis, foggara, customary law, socio-economic change.



Introduction

The Saharan oases are considered as a constellation of immutable green spots on this yellowish mineral immensity. They represent a haven of life, born mainly from the conjunction of the sun, man, water, palm, date and dromedary. The oases are totally anthropic spaces and represent intensive production systems of great complexity. The word oasis, of Egyptian origin meaning an inhabited place, was apparently used by the Greek historian Herodotus around 450 BC. JC.¹

These oases are sometimes isolated, more or less moderate in size like the oasis of Ouargla, which alone has more than a million palm trees, sometimes grouped together like those of Oued Righ where 47 oases extend over 150 km with 1.7 million palm trees.². To survive in a hostile environment, the populations of the oases have developed ingenious techniques, adapted to local conditions, but also social forms that closely match the former.

The mastery of the vital factor that is water required a collective effort to exploit spatial structuring and discipline. Water control is therefore a central pillar in this highly hierarchical collective organization, the expression of a general consensus in some cases, but of a balance of power in others.³.

The type of oasis depends on the nature and use of the water resource, the nature of the soil and its topography. Our research focused on the regions of Touat, which are part of the constituency of Adrar in southwestern Algeria. It is motivated by the establishment of new development perimeters, based on the exploitation of groundwater, accompanied by a speech on the decline of ancestral hydraulic systems that are the foggaras.

Despite the modern techniques that have invaded the oasis space in terms of hydraulics, the peasants of the area, the subject of our study,

¹- Toutain.G: Situation of Oasis systems in warm regions, review of Mediterranean options, CIHEAM. Series A, n ° 11, p 7-12, 1988.

²- iBid p 330.

³- Battesti.V: The conception of work and appreciation of the landscape in the Saharan Oasis, Conference at the natural museum of natural history, November 16, 1996, p 7.



Still remain attached to their old traditional irrigation system. Water was characterized by a major place in the close and secular relationship between habitat (ksar) and palm grove and the modification of this balance by the introduction of unmatched volumes, both for agriculture and for urban consumption has put in difficulty this organization.

Thus, the problematic, centered on the cohabitation on the one hand on the old so-called foggara system and on the other hand the emergence of modern irrigation techniques by deep boreholes, equipped with pivots, totally foreign to the community know-how of the region.

The question that arises in this study consists of the secret of this traditional method of exploiting water that has invaded the Oases and its influence in the agricultural sector.

Context and characterization of the oasis space

Covering nearly 436,000 km² of southwestern Algerian Sahara, the Touat stretches out to the confines of the Eastern Erg to the east, largely covers the Western Erg to the north and opens onto an immense reg to the south, the Tanezrouft (figure 1). Administratively, the Touat belongs to the wilaya⁴Adrar which has a population of 429,174 inhabitants.



Figure 1. Location of the study area, Touat region in the Algerian Sahara

Volume 2 – Issue 18

Issued on: 20 April 2021

International Journal of Research and Studies Publishing | Volume 2 | issue 18 | April 2021 | P (415)

⁴ - (RGPH, 2008).



Marked by old trans-Saharan caravan routes that linked the Mediterranean to sub-Saharan Africa, the Touat and its multiple oasis strings played a role as a hub in trade and an area of refuge for exogenous populations.

It is more precisely in Tamentit (about twenty kilometers south of Adrar), that this qanat technique was first introduced by EL Malik EL Mansour in the 11th century.⁵. Known locally as foggara, it quickly spread to the rest of the Algerian oases (Touat - Gourara - Tidikelt), thanks to the fossil waters of the intercalary continental (albian) water table. There followed a remarkable dynamic of palm gardens and the sedentary habitat that accompany them. Thus, and taking into account the precise topographical and hydrogeological conditions which govern this Saharan region of Touat, an oasis way of life has emerged in these arid zones, by thechanneled deep and quality water, giving birth to fertile and viable spaces, called oases. The longevity of these living spaces is conditioned by the performance of the foggara and the regular maintenance of its various components (figure 2).



Figure 2. Different components of a foggara

Operated collectively, the foggara belongs to a group of co-owners who ensure the individual distribution of water.⁶. Wealthy families who are members of the condominium have more water than members of less fortunate families.

 $^{^5}$ - El Faiz M. (2002): " the contribution of Arab mechanics to the evolution of medieval hydraulics " Revue " La houle blanche " n $^\circ$ 4/5. pp. 89-93.

⁶ - Garnier. JC: Land rent and economic regulation in the Algerian Gourara, Tiers-Monde, Tome21, n ° 83 pp. 649-663, 1980.

Volume 2 – Issue 18	International Journal of Research and Studies Publishing	Ø IJRSP
Issued on: 20 April 2021	المجلة الدولية لنشر البحوث والدراسات	
	ISSN: 2709-7064	

The water is distributed by a system of combs called "el qasria" which begins at the end of the underground gallery (figure 3).



Figure 3. Partition comb (el qasria)

At the legal level, the management of conflicts is ensured by a committee of wise men who has been entrusted with the drafting of a code of underground drainage galleries, comprising all the rules that govern the distribution and management of water from the foggara, locally called Zemam (figure 4).



Figure 4. Zemam, the memory of the foggara

This code should put an end to conflicts between users. In addition, the notable populations of this region grant the foggaras a sacred character comparable to that of

Volume 2 – Issue 18

Issued on: 20 April 2021



Koranic schools, zaouïas and mosques.⁷. In this, its destruction or desecration becomes an unforgivable crime.

However, the interference of modern water pumping technologies nowadays leads to the individualization of agricultural practices, whereas until now the collective dominated, especially in the oases in foggara of Touat, of which only collective action, could explain the existence.

Faced with this situation, the questioning of social systems and traditional agricultural management methods has resulted in increased difficulty in maintaining these galleries. In front of the lowering of water tables, the gardens were moved further downstream in order to allow a digging of the gallery capable of allowing it to pass again under the roof of the water table.

It appeared that the alternative of motor pumps provided a satisfactory technical solution, making it possible to supply low-flow foggaras, or in the process of disappearing, although spatial changes are still necessary in the location of the gardens (Bisson, 2003). .⁸

To this aspect of socio-spatial changes and a decreasing evolution of foggaras, 50% of which are unproductive due to the lowering of the hydrodynamic level of aquifers, is added the disproportionate urban expansion, linked to a demographic increase in these regions, leading to thus to a disorganization of this ancestral community system.

⁷- Moussaoui.A Space and sacred in the Sahara. Ksour and Oasis of South-West Algeria, Paris 1980, CNRS ed 2000, p291, 1980.

⁸ - Bisson.J: The Sahara: myths and realities of a coveted desert, paris, Harmattan, 2003.



Figure 5. Organization and institutions of the foggaras

IJRSP



Discussion

Issued on: 20 April 2021

Volume 2 – Issue 18

For five decades, the Algerian Sahara has been the subject of agricultural development programs aimed at ensuring the country's food security and improving the living conditions of the population. These multiple programs have generated a profound transformation of the oasis system, ranging from its social organization to its spatial configuration.⁹.

Today, the orientation which consists in multiplying the development programs through agricultural development perimeters in the Sahara continues to occupy an important place in the speeches and the public programs, and this in spite of the results on the plans. economic, social and environmental.¹⁰

The declining discourse on the foggaras results first of all from a modernist vision which condemns the foggaras in the name of productivity in the face of individualized development methods deemed to be more efficient.¹¹This contribution, essentially based on local archives, aims to bring some elements to the understanding of the economies of Touat, a group of oases in southwest Algeria. It adopts a regional rather than a local point of view for a period ranging mainly from the end of the 19th to the 20th century, with however some older sources consulted.¹²

It starts from a simple observation: the establishment and maintenance of irrigation systems in a region which depends exclusively on underground water resources and on imported labor, require a long-term external investment and therefore in question the more classic image of oases as social and economic isolates.

⁹ - Bellal SA, Hadeid M: Access to underground water and transformations of the Oasis space: The case of Adrar, Cahier géographie du Québec 60 (169) 2016, p 29-56.

¹⁰ - Otman E, Kouzmine T: Spatialized assessment of agricultural development in the Algerian Sahara, Européan journal of Géography 632, 2013.

 ¹¹- Bisson. J: The foggaras of the Algerian Sahara decline or new, in Baaland D, Ed. Hidden waters, Geographical studies on underground drainage galleries, 1992, pp 7-26.
¹²- Al Khawarizmi: Mafatih al Ulùm, ed. Cairo.



This dependence on the outside is reflected in the high degree of readability that characterizes the oasis economies: the penetration of monetary values in the depths of local valuation categories, the voluntary importation of Islamic law as a sign. belonging to a moral and spiritual world, the relative weakness of community mechanisms and the deep rootedness of credit relationships that linked all productive activity to financial networks that transcend them.

The agriculture of the oases in the region of Touat, a system which includes a technique of bringing water by foggara. We will try, through the historical evolution of the system in Touat, to analyze the socio-political consequences of this type of economic organization.

I - The historical evolution of the foggara

Volume 2 – Issue 18

Issued on: 20 April 2021

The practice of foggara is attested in the Sahara from the 11th century, and corresponds to similar systems in Iran "Qanat", in Afghanistan "Khiras", in Morocco "Kattara"¹³ and in Yemen "sahrig ¹⁴. The fact that in the Touat eminent specialists¹⁵ led to the conclusion that the foggara had been introduced into the Sahara by the Barmaka, from Iran, through the Arabs.

The Barmaka are supposed to be the descendants of the Barmecidies of Iran, the country of the Kanat.¹⁶ As for Ibn Khaldoun¹⁷, he mentions the first foggara was carried out in Tamentit in the year 901. This system has multiplied through the majority of Algerian oases and has continued to this day.

As for its geographical extension, there are foggaras throughout the Sahara, in Ahagar for example. But their density in Touat, manifested by innumerable living or dead well heads, covering the desert like so many postulants, gave rise to the expression "Ardh mafgora" meaning "earth dug, disembowelled, impoverished".

 ¹³ - Benbrahim.M: Les Khettaras du Tafilet (Morocco): past, present and future. In international Symposium 2-5 October, Wlaferdaige, Luxembourg, 2003.

¹⁴ - LO.A and Poitier.R: Les foggaras. Encyclopedie Mensuelle d'Outre Mer, vol 5, fasc.64, December 1955, pp 486-489.

¹⁵- Martin, AGP: The Saharan Oases (Gourara, Touat, Tidikelt); Algerian printing; Algiers 1908.

¹⁶- Cristini.A and Langlais: Le Qanat, an ancestral collection device, H2O, 46, pp 10-11, 2004.

¹⁷ - Ibn Khaldoun: Kitab El Iber, History of the Berbers, tv, 367.



Around 1950, the total length of the foggara of Touat was estimated at around 2000 km, while the total population was at that time 40,000 inhabitants. In the past, it is almost certain, to see the remains of the dead foggara and of Ksour abandoned, that this density was much greater.

II - The realization of a foggara

From the original wells called "Ayn-el-foggara" or source of the foggara in the Touat, the course is calculated in the direction of the oasis to be irrigated. The depth of this first well is variable from 5 to 6 m up to about twenty meters. A second well is dug a few meters from the first, and their underground conjunction is operated along a line which is not always straight, that is to say, the worker who digs under the ground may lose direction.

The distance between the various wells is inversely proportional to the depth of the pipeline. On average, it can be evaluated at ten meters. As for the diameter of the underground pipe, it must allow at least the passage of a man.

The pipe, due to the slope, gets closer and closer to the surface and there comes a time when water appears on the surface: we then dig a kind of trench which is then covered, and which we call in the Touat "aghùsrù"

The last part of the journey is usually done in an open-pit pipe. It ends in a basin called "qasria", which is the reservoir from which the water is distributed between the various beneficiaries.

At the exit of this basin, there is a distributor, called "machta" (comb), formed of a long soft stone, in which have been made spacings proportional to the water shares; allowing a greater or lesser flow to pass.

Each spacing corresponds to a particular stream of water called "seguia" which carries the water in a determined portion of land, called "bustan" (garden).

Sometimes the part of the water from the first "qasria" must in turn be shared between several beneficiaries, for example the heirs of a man.



In this case, the water is brought to a second "qas'ri" and distributed by a "mechta". We sometimes find several successive "mechta" when following a stream.

When the water arrives in the garden, will be collected in an irrigation basin called "majen".

The bottom of the basin must remain higher than the height of the garden, so as to make possible the irrigation of this one by small channels. This shallow depth naturally facilitates evaporation and causes further loss of water, so these "mejen" take on the appearance of a drying tank.¹⁸

III - Soil technology

Geographically, the oasis is considered as a vast area planted with palm trees, an outer belt is made of non-irrigated palm trees, called "el bùr". Inside this is the area irrigated by foggara water. Finally, in the heart of the palm grove, are the inhabitants: their groups are called "ksour".

The water arriving in the "majen" of a garden is therefore used for the irrigation of palm trees and gardens under the palm trees. The cultivated land is divided into small squares of variable dimensions called "gemmùn".

The main self-sufficiency crops practiced are those of cereals (wheat, barley), vegetable crops (beans, lentils) and since 1971, it has been noticed that the tomato crop has been intended for sale. In terms of soil management practices, apart from the practice of fallow, one finds in Touat a certain knowledge of the usefulness of natural fertilizers, and of the complementarity of crops.

The work of the land is considered socially inferior, it is traditionally reserved for a class of black descendants of slaves, known as "harratine".

The types of labor relations are two kinds, the worker can be:

¹⁸- Flye Sainte-Marie: Trade and agriculture in Touat, Bulletin of sociology and archeology and geography of Oran, t XXIV, pp 345-394, 1904.



- A "khemmas": sharecropper, theoretically receiving 1/5 of the harvest.
- A "kherraz": tenant of water or land, for a fixed fee.

IV - Sharing method

Sharing is automatically practicing the art of measurement: measurement of water, soil, product and calculation of equivalences, if it is a traditional economy that does not know or uses little this equivalent. universal currency. Then, we determine the rules attributing to each beneficiary the share which is due to him according to his contribution or his right.

The art of measurement

In this passage, it should be noted that the Touati have long inherited the measurement methods relating to water and agricultural products.

A-1- The water measurement

The unit of measurement for water is the "habba": it is the quantity of water that flows through a hole of a given size, for 24 hours. It is not a fixed unit, because the dimension of the hole varies according to the places; approximately between 3.5 and 4 liters per minute.

There is a multiple: 5 habba, and above all a series of submultiples, which reflects the importance attached to water. Compared to the "habba", they are: $\frac{1}{2}$, 1 / 3,1 / 4, 1/6, 1/12, 1/24 (said qirat), 1/96 (called "dirham", 1/144 said "Kharouba", 1/576 says "qirat el qirat", or "mùzùna".

The different names are also used to refer to the same unit:

- "Habba" inspired by: seed, berry, gun caliber.
- "Majene" is the name of a pool in principle filled 24 hours.
- "S'baa" is the finger, "kherga" designates the hole.



The origin of this type of measurement goes back, for the Touat to the census of water carried out by Caïd En-Nacer in 1670, on behalf of Sultân Moulay Rachid: he only introduced to Touat a process already known and practiced elsewhere. ¹⁹

In Touat, the measurement is made by means of a copper board²⁰, pierced with holes corresponding to the habba and its subdivisions. The board called "hallafa" in the Touat is placed on the current of water until, by plugging or emerging from the holes, a new constant is obtained on the board, the water passes through the holes, under a height of determined water, accurately measuring the flow of the course. The man responsible for making the "hallafa" is called the "kiyal", in other words the measurer.

These are the ways in which the parcels are designated. Each garden is divided into "gemmùn": the dimensions of these vary according to the abundance of water.

A-2- Product measurement:

These measures are also variable depending on the location, using all the same names:

- "Kamcha" (handful): about 300g of wheat is equivalent to "azgen".
- "Ges'a": large wooden dish equal to 12 azgen.

We note that the equivalence in weight varies according to the products (dates, wheat, sorghum, etc.). Regarding equivalences, it is possible to establish a correlation system between these three types of measurements: a certain quantity of water allowing to irrigate a certain area, and to produce a certain quantity (measured in capacity or in weight).

At this last stage, equivalence is established above all in wheat, so the rental of water is always evaluated in wheat and the payment of the "kiyal" was made in wheat or dates. In Touat, the quantity of wheat required for the rental of 1 habba varied between 6 and 15 kg.

 ¹⁹- Hassani. I: Traditional methods of collecting groundwater in the Algerian Sahara, Rev.tech.Sci n °
6, pp20-24, 1988.

²⁰ - Said otherwise El kil al Asfer (the yellow measure).



B - The art of sharing

Most of the sharing concerns water: initial investment determining the respective shares, association for maintenance or development, water rental. Another aspect of sharing concerns the distribution of products, when there is a work association.

B-1- The initial association:

When several people joined together to dig a foggara, the contributions of each were evaluated in work shares, practically it was the number of workers that each made available to the work undertaken. From there is the determination of a first distribution of the shares, for example: We take three associated men A- B and C providing respectively 2 and 3 workers, we find that "A" has the right of 1/5 of water, "B" has the right to half and "C" to the right to 3/10. It should be noted that this distribution requires the appearance of an initial "machta" distributor.

These three currents starting from the "qasri" are then subdivided by secondary distributors between heirs of A, B and C. It is therefore at this level, secondary distributors that we should be able to read a family tree; the initial distributor can only appear in this tree if the initial association was made by parents in joint venture during their lifetime and if the water shares were subsequently distributed according to the laws of succession and not by according to the initial contributions in labor.

At the end of the different distributions, the number of rights holders receiving a share of water can be considerable: in Touat, we cite the case of foggara with up to 700 owners. For each foggara is established a register called "register of the foggara" in other words "zmam" on which appear the names of the beneficiaries, and the share of water that goes to them.

B-2- The association for the extension

The associates of a foggara can agree to dig new wells, in this case each one contributes to the functions of his parts;



This process has the advantage of not introducing any new owner. But it is difficult to practice: the extreme ramification of the foggara requiring the agreement of a large number of people, an agreement which can be difficult.

Otherwise, it may happen that a person proposes to dig new wells and he will become a partner and will have a 50% share of the surplus water brought to the foggara as a result of this work. This part of the foggara which brings additional water to the Touat is called "Ker Ayn".

Likewise, when it comes to cleaning the pipes, the partners can do it themselves, which requires an agreement on their part, and costs (in terms of work or salary). You can also call on a contractor who will take care of all the operations, but in the end, he will become the owner of a part of the water in the foggara, equivalent to 50% of the increase in flow caused by his works.

C-Breakdown of products and sharecropping contracts

Volume 2 – Issue 18

Issued on: 20 April 2021

This distribution only concerns the type of work association joining an owner and a sharecropper called "Khammas". The name suggests a distribution of 1/5 for the benefit of the sharecropper. In fact, contracts are various types, ranging from 1/3 to 1/7 or more. The most frequent is that a different percentage is established according to the nature of the products: for example, in Ghomara, we find 1/7 for dates and 1/5 for cereals.

It should be noted that the introduction of tomato cultivation in Touat from 1971, and the importance taken by this cultivation in extension and in value, created a certain disturbance in sharecropping contracts. This new crop absorbs more water, requires more work and brings in money. So, it is marketed compulsorily through a state agency, which caused the sharing problem that it has become more acute.

V - The socio-political conditions of Touat

The analysis of the socio-political conditions of the Touat society make it appear to us as a stratified society, and as an anarchic society. The seeming contradictory of the two terms was lifted following remarks by researchers like Leach²¹ and Gellner.²²

²¹- Leach.E: Political Systems of Hightland Burma. London, Bell & Sons 1954.



Volume 2 – Issue 18

Issued on: 20 April 2021

Le Touat did not set up a hydraulic company, but resorted to slavery.

He did not know of casts based on professional qualifications²³. It is however founded on a hierarchy, under a double aspect: hierarchy of races (of whites and blacks), hierarchy of values: the blacks having base occupations, like agriculture and working the land, while the whites have noble occupations, such as commerce, war, piety.

It is therefore fundamentally on the criteria of race that the hierarchy of Touat society is based, supplemented by those of free status and holiness. They are therefore hierarchies of value, before being able, for this reason, the distinguished categories have often in the past been considered as castes.

These different social categories are as follows:

a- The chorfa: they are the descendants of the prophet and his family. They generally represent people from elsewhere to settle in Touat, on the basis of a religious celebrity reinforced by this noble ascendant. This group is made up of 2,651 people (between men and women), they represent 15% of the population of Touat and they own about 15% of important goods such as water and palm trees in the region.

b- The merabtine: are also people of religion, qualified by themselves or by their ancestors for their holiness, but without ancestry to the prophet.²⁴ They are Arabs and Zenetes, grouping together about 2148 people (between men and women),

they represent 12% of the population located in Touat. They owned a rate of 12% of goods (water and palm trees).

We note that, the chorfa and the merabtine are inviolable in their persons and their goods, keep away from alliance groups: for this reason, they are qualified for mediation between the belligerent parties. However, history shows many deviations from these principles: looted shorfa, or warring merabtine.

²²- Gellner. E: Saint of Atlas. London, Weidenfel and Nicolson, 1969.

²³- Barth.F: Political Leadership among Swat Pathans, London, The Athlone press, 1959.

²⁴ - C- Trumelet: The saints of Islam - hagiological legends and Algerian beliefs, paris 1881, p109-110.



c- Commoners: include white people who do not fit into the previous categories²⁵. They are divided into two races (Arabs and Zenetes). According to research, this group often bore arms and traded and may have contributed to agricultural work, as it provided the basis for the taxation of shorfa and merabtine being generally exempted by the Sultan. They represent 27% of the Touat population. We note that this group did not own any property in the Touat. It should be noted that there was a minority group nicknamed "el Mouhadjéria", descendants of Islamized Jews, grouping together approximately 4,608 people (between men and women), representing 5% of the population of Touat, their contribution to this region was considered as 27% of the goods (water, palm trees, dates) in the Oasis of Touat.

d- The harratines: They are black descendants of slaves, who have the status of free men, but second class, given their racial affiliation and their ancestry of slavery. They represent about 37% of the Oasis population, they have had a considerable contribution in this region consisting of 37% of the goods relating to the Oasis (water, palm tree, dates).

The slaves: these are all blacks brought from Sudan by caravans. The Touat was, euntil 1900, when it was abolished, an important center and a stage in the slave trade. They played an important role in the field of agriculture in the Oases. Its grouping in Touat reached a number of 1611 people (between men and women). They represent 9% of the Touati population, they owned only 9% of the property located in the Oasis of Touat.

B- An anarchic society:

Volume 2 – Issue 18

In the typology of companies with or without a State, the Touat occupies an intermediate position. Since the Marinid period, the Touat has been considered an annex of the Tafilalt. From 1526, we have a chronology of these caïds sent on mission, or permanent delegates from Tafilalt or central Morocco.

The periods of independence (1552-1584 and 1795-1891) are in reality periods of internal autonomy, where the sultans do not renounce their sovereignty over the region,

²⁵- Martin, AGP: The Saharan Oases (Gourara, Touat, Tidikelt); Algerian printing; Algiers 1908, p 218.



But only to send governors there and to collect the tax, by impossibility or because they are considered too minimal.

In reality, this central power did not really govern the region. Even in periods when a permanent representative was on site, his mission was reduced to preventing serious disorders and especially to collecting annually the taxes owed to the sovereign: the tithe of harvests in kind (achoura), and the tax on water (Zakat) in lieu of statutory tax.

For the rest, the region was left to itself. Thus, this policy left the field open to internal confrontations, so that this society can be considered as an anarchic society. The internal history of the Touat, as it can be followed fromXVI th century at the beginning of the XX The century is an uninterrupted series of rivalries and conflicts between the various local groups.

These conflicts occur in principle only between commoners, the chorfa and the merabtine being continually called upon to establish their mediation, put an end to the conflicts and have the raided property returned.

The social stratification that we have seen did not correspond to a feudal hierarchy of power. The different groups were dispersed, nor was there any internal solidarity within these groups, nor any hierarchical dependence between them.

The zaouïa of the shorfa constituted as many poles of attraction in competition, appear as forms of personal power; under the aegis of the most influential sheriff or Mrabet at the local group level. The other villages are represented by their "djamaa" or their local assembly.

Conclusion

Volume 2 – Issue 18

At the end of this study, the impression which prevails is that the society of Touat, founded on several centuries on a particular type of economy, the agriculture of the foggaras, does not manage to develop in a coherent way. As an economic region, Touat has remained dependent on trade relations as the supply and exchange of products.



Moreover, its geographical location in relations between the Maghreb and Sudan did not prevent it from being closed to this current of trade.

However, these great trade routes were under the dependence and control of independent nomadic tribes. If the political logic of a society in foggara leads to a state organization, that of a tribal society maintains it in a segmentary organization of predatory expansion, opposing by definition any crystallization of power, while maintaining sufficient cohesion to unite in the activity of predation.

The fundamental contradiction of Touat's society would ultimately lie in the gap between its economic regime, oriented towards the birth of a modern pole, and its political regime maintained at an anarchic stage. It would be a contradiction between the internal factors and the external factors of its development.

Bibliographical references:

IJRSP

Volume 2 – Issue 18

Issued on: 20 April 2021

- 1- Al-Khawarizmi: Mafatih al Ulum, Ed. Cairo
- 2- Benbrahim.M: The Kattaras of Tafilet: past, present and future, international frontinussymposium, Luxembourg, October 2003.
- 3- Barth.F: Political Leadership among Swat pathans, London, the Athlon press 1959.
- 4- Battesti.V: The conception of the work and appreciation of the landscape in the Saharan Oasis, conference at the natural museum of natural history, on 11/16/1966.
- 5- Bellal SA, Hadeid M: Access to underground water and transformation of the Oasis space: the case of Adrar, cahier géographie du Québec 60 (169) 2016.
- 6- Bisson.J: The decline or new Algerian foggaras, in baland, Ed. Hidden waters, geographic studies on underground drainage galleries, 1992.
- 7- Bisson.J: The Sahara: Myths and realities of a coveted desert, Paris, Harmattan 2003.
- 8- Charoy.J, Torrent .H: Origin, water management, assessment of aquifers in Oases, Revue options Méditerranéennes, ciheam, series A, n ° 11 1990.
- 9- Cristini.A and S. L Anglais: The Qanat, an ancestral collection device, 2004.
- 10- Durand.D, F. Coques: The arid domain, in Encyclopedia Universalis, France 1997.
- 11- El Faiz.M: The contribution of Arab mechanics to the evolution of medieval hydraulics, Revue La houle blanche, n ° 45, 2002.



- 12- FAO: Water and Agriculture: Producing more with less water, Rome 2002.
- 13- Flye Sainte-Marie: Trade and agriculture in Touat, Bulletin de la Soc, d'archéo et de géogr., Oran, T XXIV 1904.
- 14- Garnier.JC: Land rent and economic regulation in the Algerian Gourara, Tiers monde, Tome 21 1980.
- 15- Genès and Peter: Life in the Desert, in Encyclopedia universalis, France
- 16- Gellner.E: Saints of Atlas, London, Weidenfelfand Nicolson 1969.
- 17- Hassani.I: Traditional methods of collecting groundwater in the Algerian Sahara, technical review, n ° 06 1988.
- 18- Ibn Khaldoun: Kitab El Iber (History of the Berbers), T VI.
- 19- Jacomy.B: Histoire des techniques, Ed. Seuil, Paris1990.
- 20- Kassah.A: Oasis, Water and Agricultural Development in the Maghrebian Sahara, Revue Sécheresse 1998.
- 21- Leach.E: Political Systems of land Burma, London, Belland and Sons 1954.
- 22- LO and Poitier: Les Foggaras (Monthly Encyclopedia of Overseas), Vol 5 December 1955.
- 23- Martin, A.GP: Les Oasis Sahariennes (Gourara, Touat, Tidikelt), Algerian printing press, Algiers 1908.
- 24- Moussaoui.A: Space and sacred in the Sahara. Ksour and Oasis of southwest Algeria, Paris, CNRS Ed 2002.
- 25- Otman.E, Kouzmine.T: Spatialized assessment of agricultural development in the Algerian Sahara, european journal of geography 2013.
- 26- Pascon.P: General theory of water distribution and land use in the Haouz of Marrakech, RGM, n ° 18 1970.
- 27- Perennes.j: Water and people in the Maghreb, contribution to a water policy in the Mediterranean, Karthala, CNRS 1993.
- 28- Toutain.G: Situation of Oasis systems in hot regions, Revue option Méditerranéennes, CIHEAM, Série A, n ° 11, 1988.
- 29- Trumelet. C: The saints of Islam. Algerian hagiological legends and beliefs, Paris 1881.

Doi: doi.org/10.52133/ijrsp.v2.18.16

International Journal of Research and Studies Publishing | Volume 2 | issue 18 | April 2021 | P (432)