

WATER & IRRIGATION IN JOLFA

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ABSTRACT

History tells us about an old Jolfa in north-east of Iran. Jolfa is a village of Marand, a town in Azerbaijan, near Tabriz. It is understood from these reports that people of this region had had many problems in supplying water. Although they lived near the Aras river. They used water of fountains wells and subterranean canals.

Why the people of these areas used small rivers, streams, wells and subterranean canals as their water supply, while the great river of Aras was just to their north. To answer this question we need to know geographical conditions of the region: Because the valley is so deep that only modern technology can make it possible to use the river's water for farming purposes.

Water is so important to the people of Jolfa that they consider it as the symbol of light, and respect it as a holy element.

Maybe if people of Jolfa and Gargar did not have the water problem, water would not be so important in their customs. Only those who face water shortage need to pray for rain, so, respecting and praying for rain shows the need that the people of this region feel for water.

Construction of the canals was done through cooperation of the natives. Some people did their best to build the canals and then all people could benefit from the result.

One of most important affairs in water management in the region was its distribution water has been so important to the natives that many quarrels have happened over it. They usually disused the affairs in mosques. They talked each other until they com to an agreement yet sometimes discussions could turn into quarrels.

JOLFA HISTORY & WATER PROBLEM:

History tells us about an old Jolfa in north-east of Iran. Jolfa is a village of Marand, a town in Azerbaijan, near Tabriz. The oldest words on Jolfas history come from "Vaq Name-ye Rabi Rashidi". In this historical text there are many references to the water problem of the region.

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The “Vaqf Name “tell us about the geographical location of the village and also about what exists in the area, including: subterranean canals, streams, farms, gardens and watermills. It says that Jolfa had once belonged to Amir Jamal al Din Mohammad Kermany. But then it is sold by his heirs. (Khaje Rashid al Din Fazl Allah Hamedany, Vaq Name-ye Rabi Rashidi, p 258).

According to the information given by the Vaqf Name, using surface and development of the region. Residents of Jolfa at that time used these water supplies for drinking, farming and also putting mills in to work.

In Safavid period we find Jolfa to be an Armenian town in which silk business is very popular. But during Shah Abbas's wars against Ottomans he followed scorched earth policy and burnt many farms in Azerbaijan and in Jolfa as well. Which the destruction of Jolfa, its Armenian residents were moved to Isfahan. (Iskandar Beig Monshi, Tarikhe Alam Araye Abbasy, pp 1308- 9).

The Safavid king built a new Jolfa beside Zayande Rood river and resided Armenian region of Jolfa, south of the Aras river, there were Muslim residential areas named Alamdar and Gargar which are mentioned in some sources like Alam Araye Abbasy and Zeile Alam Araye Abbasy.

Jolfa experienced one of its best periods during the Safavid era and there are many reports on the Safavid Jolfa.

It is understood from these reports that people of this region had had many problems in supplying water. Although they lived near the Aras river. They used water of fountains wells and subterranean canals.

Sharden says that Shah Abbas, as a part of his scorched-earth policy, had poisoned the fountains in Jolfa (Sharden, Sharden's itinerary, vol 2, p 394).

This implies the importance of fountains in people's life in the area. Sharden also writes:” According to Armenian traditions the old Jolfa had had four thousand gardens, houses and other buildings, but even if we consider the present ruins, this number will not even reach half of what is said, and to this we should add the fact that most of these ruins had been shops or sheds which were built in the mountains, and were mostly used for flocks. I can't think of any place in the world more barren than the old Jolfa, there are no trees, and no plants there; actually there are many fertile lands around this town, but they may not be seen from the town which is located in a stony, droughty, area' (ibid, p. p 392- 3).

It's a surprise that Sharden describes a town near the Aras as a droughty region. One can just infer from these reports that people of this area didn't use the river's water or they made so little use of it that it wasn't worth reporting. However, Shah Abbas's scorched- earth policy could be an additional cause of the bad conditions in the area.

After that the old Jolfa remains as a ruin till the rise of Qajarids. But a few kilometers further Muslims were living an active life. They lived in places like Gargar and their main jobs included producing wool and cotton, spinning and weaving, just like the old Jolfa. Although there wasn't a town of Jolfa anymore, but the name, which means weaving, still suited the region.

August Benton, about the riverside village of “shujae”, in Fath Ali Shah’s period, writes: “The poor village of Shujae was located at the foot of some droughty, sandy hills, about two farsangs away from the river (Aras)” (August Benton, August Benton’s Diary, p. p. 65- 6).

This shows that the village of Shujae, like many other villages in the region, supplied its water from fountains and wells not from the river. Benton also talks about fertile fields of Gargar, which is also called “Darre Dooz” (Darre Deez or Daraq Dozd), and had many subterranean canals, and also a river with the same name which made it so fertile. The field was used for planting various plants such as wheat, cotton, etc. There are some documents from Fath Ali Shah era which show us that people traded the water of the mentioned river.

That how Jolfa is described in report, depends on the time of the year when they are written. Springtime reports talk about rainfalls and freshness of the region. But reports written in summer and fall describe Jolfa as a droughty area. Nasser al Din Shah’s diary in his travels to Europe are springtime reports about rainfalls and freshness of the region (Nasser al Din Shah, Nasser al Din Shah’s second tour to Europe, p. 27) But the report by Brogesch, ambassador of Germany in Iran talks about the drought of the area. (Heinrich Brogesch, A trip to sultan’s court, p. 123).

Nasser al Din Shah in his second tour to Europe also mentions the existence of many mills in the field of Darre Dooz “On both sides of the road Gargarians have built many mills “ he says (ibid) And a few years later in his third tour to Europe he report :”We saw the mills we had seen the previous time again and also some other mills were added to them this time “(Nasser al Din Shah, Nasser al Din Shah’s third tour to Europe, p. 35).

These mills had most probably worked by water power of the Daraq Dozd river.

To use the water and manage the problems, people of the region worked in groups and cooperated with each other. Because it was no easy job to do individually. There are many documents, remaining from that time which prove the idea:

One of these documents is a command from Qahraman Mirza, Abbas Mirza’s son, to Haji Abdi Khan Yavar Alamdary governor of Gargar (23 rd Bulletin of center of documents north-west of Iran, p. 11) According to this, the natives had had an active role in constructing the canals. In fact, the water problem had been so important that had made the natives forget about their, still famous, old arguments and had forced them to cooperate in order to overcome their common important problem.

Another matter which could be inferred from the document is the high prices of constructing subterranean canals at the time. The costs are so high that the governor of Azerbaijan asks the government to delay the taxes.

GEOGRAPHY OF JOLFA WITH EMPHASIS ON WATER PROBLEM:

An important question about history of irrigation in Jolfa and Gargar areas, is, why the people of these areas used small rivers, streams, wells and subterranean canals as their water supply, while the great river of Aras was just to their north. To answer this question we need to know geographical conditions of the region:

Jolfa is located near the Aras river in deep valley and is surrounded by high mountains of Iran and Caucasia. The Aras river flows from west to east in such a valley, too. But only areas near the dom of Aras can use its water. Because the valley is so deep that only modern technology can make it possible to use the river's water for farming purposes. (Behrooz Khamachi, gazetteer of east Azerbaijan, p. 302) So it had not been possible to exploit the river's water in Jolfa either. Also the fact that the Aras river is a frontier river makes it possible to use its water for some small fields near it.

Because of the high mountains around it, Jolfa is warm and unpleasant in the summer and temperate in the winter. These mountains also prevent Mediterranean currents from affecting the region, so Jolfa has a poor vegetation. (ibid).

Jolfa is one of the warmest areas in northwest of Iran and its temperate is usually higher than other areas of Azerbaijan.

All these factors are combined to make water shortage the main problem for the residents of the region. A problem which has existed from long ago, according to historical evidences.

So, people of Jolfa had to find away to gain water. The geography of region has provided some solutions to this problem, too. One of them is the high mountain of "Kiyamaki dagh".

This is the highest mountain in the region. It is surrounded by "Zoonooz" to its south, "Hadishahr"(Alamdar – Gargar)to its north, the village of "Dizmar" to its east, and mountains of "Darre Deez"(Darre Dooz)to its west. Because of its temperature, fine weather, enough snow and rainfalls, and green, fresh fields around it, many villages have been built around it. Nine months of the year the mountain is covered with snow and thus it is the main source of many rivers in the region. (ibid, p. 443).

It also is the main source for underground water supplies and, so, solves the water-problem to some extent. But it, still, is highly dependant on human activity to solve the problem.

And people of the region have shown, since long ago, that they can well-develop and manage existing water supplies.

WATER IN NATIVES CULTURE:

Water is so important to the people of Jolfa that they consider it as the symbol of light, and respect it as a holy element. On the last Wednesday of the year, people of Azerbaijan had had special customs to praise the four elements (water, soil, air, fire). But, nowadays, fire is the only element present in the ceremonies. But some decades ago a great deal of attention had been paid to water and it had had some special customs. For one of these, people, especially young girls, would go to rivers and fountains and drink water from them, in order to have good luck in the falling year. People also jumped over water, like what they do about fire now.

Maybe if people of Jolfa and Gargar did not have the water problem, water would not be so important in their customs. Only those who face water shortage need to pray for

rain, so, respecting and praying for rain shows the need that the people of this region feel for water.

JOLFA AND CONSTRUCTION OF SUBTERRANEAN CANALS IN THE PAST:

Construction of the canals was done through cooperation of the natives. Some people did their best to build the canals and then all people could benefit from the result. The canals were usually built in a period of 16 days, and for built these canals 16 or 32 people worked together. In earlier times there had also been periods of 21 days.

The construction needed 3 experts. They were called “Kankan”, “Looganbarchi” and “Charkhchi”.

Kankan was an expert in digging. Looghanbarchi gathered the soil in a bucket, and Charkhchi was the one to take the soil out of a well.

Before construction, they studied the place to estimate the number of wells needed for taking water where they wanted. Then they would begin digging.

In addition to digging many wells and connected these wells through some canals and then strengthened them by stone revetments. The best Kankan is called “Moganny”. They are so good at their job that with a short study on a blocked canal. They can exactly show the point where it has collapsed.

Kankans and other subterranean canal constructors demanded high prices to work in canals; because of this, canal owners called upon them only once in 10 to 15 years to clean the canals.

WATER DISTRIBUTION IN OLD JOLFA:

One of most important affairs in water management in the region was its distribution water has been so important to the natives that many quarrels have happened over it.

Water distribution was controlled by some experts called “Mirab” or “Dashtban”. They distributed water all over the region and got money or some farming product as their income.

People had to obey some rules in using the water of canals, rivers or pools. For example, they could use pool waters only from morning to evening after sunset it was forbidden to use the water so that the pool could be filled again till morning for the next person.

They usually disused the affairs in mosques. They talked each other until they com to an agreement yet sometimes discussions could turn into quarrels.

NAMES AND LOCATIONS OF SUBTERRANEAN CANALS:

An interesting thing about the canals is how they get names. Sometimes canal takes its name from its location and also sometimes, it gives its name to its location. The subterranean canals in Jolfa usually belong to the latter. There is a canal in Jolfa which

has given its name to the village in which it is constructed (“Taleb Goli”). This shows the unbreakable connection between the canals and country life.

1. Khaje Rashid al Din Fazl Allah Hamedani, *Vaq Name-ye Rabi Rashidi*, Tehran, 1977.
2. Khaje Rashid al Din Fazl Allah Hamedani, *Vaq Name-ye Rabi Rashidi*, Tabriz national library.
3. Hamd Allah Mostofi, *Nozhat al Qloob*, Lyden, 1913.
4. Abolfada Emad al Din Ismail, *Taqvim al Boldan*, Tehran, 1970.
5. Iskandar Beig Monshi, *Tarikhe Alam Araye Abbasy*, vol 2, Tehran, 1998.
6. Sharden, *Sharden's itinerary*, translator: Mohammad Abbasy, vol 2, Tehran, 1970.
7. August Benton, *August Benton's Diary*, translator: Mansoore Nezam Mfy Ettehadiye, Tehran, 1975.
8. Nasser al Din Shah, *Nasser al Din Shah's second tour to Europe*, Bombay.
9. Nasser al Din Shah, *Nasser al Din Shah's third tour to Europe*, Bombay.
10. Michael Stanford, *An introduction to the philosophy of history*, translator: Ahmad Golmohammady, Tehran, 2005.
11. Behrooz Khamachi, *gazetteer of east Azerbaijan*, Tehran, 1991.
12. 23rd Bulletin of center of documents north-west of Iran. Tabriz, Aug & Sep 2004.
13. familial documents.