

Fruit trees and domestication of animals and birds in the Nabataean Kingdom

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Summary: Agriculture was a great source of the Nabataean economy, as evidenced by the many dams they built, the canals and sewers they built, and the water reservoirs they built, as they used very precise methods to prepare the surface of the earth to help collect rainwater that fell on nearby hills and ridges to form an appropriate amount of torrents by establishing a number of streams. Stretching from the top of the hills to the bottom and on their surface, these streams have rows of barricades made of gravel and spread in the Negev desert and are known as the Rajum of the vineyard.

Keywords: Nabataeans, Dams, Reservoirs, Camels, Palms

Introduction

Agriculture was and still is one of the important factors in supporting the economy of countries and helping them to stabilize, because of its role in providing the main food for humans, and benefiting from it in exchanging agricultural crops in the process of trade exchange with other countries. The countries and kingdoms go to the cultivation of certain types of crops according to the environmental conditions surrounding them from good soil and water sources close to them, and we see that some countries and kingdoms have been working on the reclamation of agricultural land by establishing dams, cisterns, channels and streams, and this is what the people of the Nabataeans achieved to expand the area of cultivated land, and as it is known that the Nabataeans inhabited barren land, however, they benefited from the rocky nature of the land, storing torrential water by setting up cisterns and reclaiming large areas of land in which they planted various types of grains and fruit trees.

In this research, we will address agriculture in the Kingdom of the Nabataeans and the most important sources of water that they relied on to irrigate their lands, and are the types of fruit trees, as well as the animals that they domesticated.

The research faced a set of difficulties, namely the lack of information that dealt with agriculture in the Nabataeans; most sources and information focused on the Nabataean trade as the backbone on which the Nabataeans relied. Several sources have been relied upon to complete this research, including: The detailed book in the history of the Arabs before Islam by the late Dr. Jawad Ali, which dealt with agricultural crops and animal wealth in detail, and the book Aspects of the History of the Arabs in Antiquity by Dr. Ahmed Amin Salim, who mentioned the most important animals domesticated by the inhabitants of the Arabian Peninsula, and the book Al-Nabataean History and Civilization by Azzam Abu Al-Hamam, and other sources.

First: Agriculture in the Kingdom of the Nabataeans

During the fourth century BCE, the Nabataeans were still nomads living in tents, speaking Arabic, hating alcohol and not caring about agriculture¹. Diu d'Or al-Sicily recounted that the Nabataeans had laws prohibiting the planting of trees, the construction of houses and the use of wine, because they led to submission². In the third century BC, they began to leave a life of herding and move towards a life of settlement and work in trade and agriculture, and in the late second century BC they became an organized society advanced in civilization and characterized by sophistication and luxury. The Nabataean trade boom led a number of them to settle³ and take care of Agriculture as a result of commercial expansion, as agriculture and industry took advantage of this commercial boom thanks to the surplus of goods of agricultural

products, so the Nabateans went to make improvements in the traditional irrigation and water collection methods used by the Edomites.⁴

The people of the Nabataeans worked on digging wells and collecting torrential water in tanks they dug in the rocks and connected to each other by acannula dug in the rock and t, and they directed the water of valleys and torrents to it and used it in the city and in the fields for drinking and agriculture, and these tanks are important in Petra, which is square in shape with narrow nozzles even if it is filled with Reg with water Close the nozzles, hide them from view, and put on them the signs that no one else knows to guide them to, and it is impossible for the enemy to know if they attack them⁵. With these new methods used by the Nabateans, they were able to turn some desert areas into fertile lands.⁶

This development in hydroengineering has led to the expansion of agricultural slavery and the practice of cultivating various types of cereals and fruit trees, especially grapes. In their drawings, the vine tree and pomegranate play an important role in decoration and inscriptions, and in combination of⁷ these various types of commercial, industrial and agricultural skills, the Nabataeans reached a high economic level. One of the most famous kings of the⁸ King Haritha IV⁹ worked to store airport water and deliver it to agricultural lands and strived to provide his people with agricultural stability that would provide them with the means of subsistence if trade was reduced one day¹⁰.

Second: Water sources at the Nabataean

The sources and forms of water for the people of the Nabataeans varied, although they lacked permanent sources such as rivers and lakes, but they had wells, springs, and dams that store torrential water.

The following are the sources of the Nabataean Water Kingdom:

1- Wells: The people of the Nabataeans excelled in digging wells, as the Edomites excelled in them before, and took different shapes, including square, circular and rectangle, and to prevent the fall of harmful impurities inside the well, stones were used as a cover for the well hole and to hide it from the sight of enemies and strangers¹¹. These wells were characterized by wonderful engineering workmanship, as they were found in the places where torrents and rocky slopes meet in order not to benefit from the water of the water Airport and overcoming water scarcity, 340 wells and water pools were found in the castle of goods¹².

And part of these bars was private, such as a bar, attached to the farmer's dream, houses and pastures, and the other section was a general par, which is located in some cities and is directly supervised by the state in Petra or some bars located in caravan stations and trade routes, or what the third section was (commons) like that in pastures that belong to certain tribes or certain areas, This system remains in the region to this day¹³.

2- Springs and springs: The springs and springs are among the water sources of the people of the Nabateans, for the freshness of their water and their suitability for drinking, as well as the power of pumping water; One of its eyes, known as (Ain al-Qana), feeds the reservoir located in the center of the city at a distance of (18,901)^{km2}, while Petra, the capital of the Nabateans, is devoid of springs, except for biting the springs of little importance because they are located in low areas¹⁴.

3 - Dams: The people of the Nabataeans erected their dams in the valleys to collect rainwater and benefit from it for drinking and agriculture, and these dams dam "Siq Petra" in the northern region of the country of Nabat, and the purpose of which was to store water and use it in times of drought and drought^{0.15} The Nabataeans built other dams in the southern region, such as the "Daraj" dam located at the bottom of Jabal Abu Khushaiba, 12 km 2 east of Wadi Rum, and allocated a predominance of the waters of this dam to pastures and stripes of cattle and the length of the wall of this dam (8) meters and width (2) meters and height (2) meters^{0.16}

4- Ponds and reservoirs: The people of the Nabataeans benefited from a place where torrents, slopes and water gathering areas in the depressions were established, so they established ponds and reservoirs, some of which were in the sandy rock and the other section took the natural depression in its form as a pond and a reservoir, and the sizes of these ponds and reservoirs differed according to the topography of the region, and the Ponds and reservoirs are built of a wall built of shredded rock, using mortar to stabilize and strengthen the wall to prevent water from seeping through them¹⁷.

Third: Fruit trees in the Nabateans

The Nabataean kingdom originated in the northeastern part of the Arabian Peninsula, and this place was known to the Greek and Roman writers as "Stone Arabia" and was a barren desert, and¹⁸ most of their lands were rocky and rugged with a salt lake that emitted fumes that were difficult to establish next to it, and yet there were other lands with many quarrels and palms¹⁹. And some natural plants such as the balsam plant, which

yielded to the people of the Nabataeans a lot of profits from the drag of the traders, so we see that the people of the Nabataeans deliberately took care of water and conserved by the establishment of dams, cisterns and streams scattered in the regions, and the reclamation of some distant lands⁰. Among the most important fruitful²⁰ quarrels:

1 - palm: A palm tree of plants that tolerate lack of water and high temperatures, and the palm tree for many of the benefits amounted to about (360) benefit, as the work of fronds, wicker, trunks, and fiber in the manufacture of various things benefited from them in his daily life and sold some of them in the markets and returned with financial returns to their owners^{0, 21}; in addition to that, it was a major food. For the population, especially the Bedouins, they also used it as a remedy for some diseases and a substance from which molasses, wine and drink were extracted²². The date palm was planted in several places in the Arabian Peninsula, including the Nabataeans, from which the people of Yathrib took its cultivation in the form of rails in orchards that they did not fear as a plot.²³

2- Olives: The olive tree is one of the quarrels that man has been interested in through the ages, and olives grow in temperate regions with two seasons varying in terms of temperature and humidity, such as the Mediterranean basin, and its cultivation requires thick soil or its foundations of sand and gravel to stabilize the tree in the land over the generations. The people of the Nabataeans knew the olives,²⁴ so it was one of the most famous for them." Khirbet al-Dharih", as during the archaeological excavation process, an olive press^{was} found²⁵. The Nabataean artist painted olives on porcelain as well²⁶.

3- Vines: What is meant by vines is the grape tree and has been grazed in many places of the Arabian Peninsula in orchards and gardens and in places where water and the appropriate atmosphere for its cultivation are provided, and it is a multiple genera, some of which are authentic from the sources of the Arab peninsula and its soil, and some others are imported from the Levant. The people of the²⁷ Nabat viticulture. Their statues indicate their interest in grapes, for a statue of a boy "carrying on his left shoulder a grape pick grapes, holding it with the left hand and eating with the other hand a basket full of bunches of grapes". The Nabataean interest in grape cultivation is evidenced by their drawings indicating the importance of Waller mangrapes²⁸ as a decorative element²⁹. The cultivation of grapes and the wine industry are also an important factor in the emergence and growth of some cities, including the city of Sweida and the canals of Wasa. Other fruit trees,³⁰ such as pomegranates, apples, apricots, oranges, lemons and bananas, were planted by the Nabataeans and are likely to be with the Jews. They introduced it to the Arab countries from the north.³¹

Fourth: Domestication of animals

Animal husbandry is an important asset for poor countries, especially those that do not have an industry and whose natural resources are limited, which are compensated by animal husbandry. The Arabian Peninsula has been famous for raising³² several types of animals, including:

1- Camels: The ancients considered camels a source of great wealth to benefit them in many things, and they were a measure of wealth, and the status of money among the Arabs. The camel is one of the³³ pet animals that are characterized by their stubbornness and hardness and walking mightily on the sands of the desert, and it is one of the oldest animals and its glory among the Arabs, the Arabs were able to make the camel a pet in the second millennium BC³⁴. The people of the Nabataeans were interested in raising it, because it was a means of transporting their trade to distant countries and a means of their movement and meeting their needs, and camels contributed to its prosperity in the caravan trade for which the people of the Nabataeans were famous and were served instead of horses.³⁵ The interest of the Nabataean camel is an exaggeration, but they portrayed it in their temples as a means of transporting the deceased across the isthmus separating two lives.³⁶

2- Horses: Although the Arabian Peninsula is famous for its beauty and breeding of the best kinds, it is considered one of the alien hybrids imported from Iraq, the Levant or Egypt, so there were not many horses in the Hijaz.³⁷ In the Nabataeans, horse breeding came after camels.³⁸ In Karnab, Abda and Sbeita, in the Negev and Hauran, a number of stables for breeding horses were found, as well as drawings of horses in the Nabataean inscriptions carved into the rock, and some clay dolls of horses were found in the Abda area³⁹.

3- Mules: one of the animals known to endure hardships and their ability to walk in rugged areas, and used in carrying and riding, and mules have been used in rugged mountainous areas that are difficult for camels to walk in, so we see the large number of mules in the Nabataean countries, because of the nature of their stone country, which is difficult for the camel to walk in⁴⁰, so they relied on mules to ride and move^{0,41}. In addition, human domestication is another animal, including cows, which is one of the ancient animals in the Arab

countries and inherent to the people of urban areas, especially the countryside, and they have benefited from its milk, meat and skins, as they have benefited from it in plowing the land, drawing water from the well, and dragging carts. Sheep are the main material to supply people with meat and wool, It is bred in most of the Arabian Peninsula.

Other wild animals were found, including the lion, which was widely present in the Arabian Peninsula, as evidenced by the large number of its names in the language and the occurrence of its name in pre-Islamic poetry⁴².

Fifth: Domestication of birds

Bird breeding has spread in many parts of the Arabian Peninsula, foremost of which is chicken, which is food for the luxuriant masters, because of its high prices for the poor, and they were proficient in cooking it, as the Arabs were interested in breeding geese, which is the duck among the Arabs and they prepare it from the water bird, and linguists mention an (duck) and (duck) of Arabized words and their origin is Aramaic, In the language of Beni Erm, ducks are called "Battu".⁴³

The end

At the end of the research, we reached a set of results, which are as follows:

- Agricultural land in the Nabatean kingdom is scarce due to the rocky nature of the land.
- The people of the Nabataeans established a group of dams and cisterns to conserve water.
- Reclamation of large areas of agricultural land as a result of the construction of dams and the use of them in agriculture.
- The Nabataeans were mainly dependent on trade, and they made great fortunes from doing commercial activities, whether guarding, mediation or commercial exchange.
- The people of the Nabataeans worked on raising a group of animals, especially camels, to benefit from it in commercial caravans.

Margins

⁽¹⁾So, Philip History of Syria, Lebanon and Palestine, tr: ʿRaj Haddad and Abdel Karim Rafiq, (Beirut: House Of Culture, 1958), C1, P417.

⁽²⁾Ali, Saleh Ahmed, lectures on the history of the Arabs, 2nd floor, (No.M: no.stretch, 1954), p. 43.

⁽³⁾So, History of Syria, p. 417.

⁽⁴⁾developer, Azzam Abu Al-Hamam, Nabataeans History And Civilization, (Oman: Osama Publishing House, 2009), p. 78.

⁽⁵⁾Pro, accommodation ancient Arab History, 2 Floor, (Damascus: Dar Al Fikr, 1996), p. 107.

⁽⁶⁾Ismail, my dream Mahrous, The ancient Near East and its civilizations, Mesopotamia, the Levant and ancient Arabia, (Cairo: university Youth Foundation, 1997), p. 267.

⁽⁷⁾Abbas, charity, history Of The Nabataean State, (Oman: Dar Al-Shorouk for Publishing and Distribution, 1987), p. 114.

⁽⁸⁾slim, Ahmed Amen, aspects Of The History And Civilization Of The Arabs In Antiquity, (Cairo: university Knowledge House, 1997), p. 193.

⁽⁹⁾(Haritha IV): He is one of the kings of the Nabataeans, he was nicknamed by several titles, including (Rahem his uncle) and (King of Nabat) Year (9 BC-40 AD), for details see: ali Jawad, detailed in the history of the Arabs before Islam, 2 Floor, (Baghdad: no.stretch, 1993), vol. 3, p. 41.

⁽¹⁰⁾Abu Al-Ghaith, Abdullah, Arabia in ancient History, 4th floor, (No.M, No.M, 2014), p. 106.

⁽¹¹⁾Pacific, Hassanein Abdul razzaq Hassan, Political and economic life in the Nabataean Kingdom, Unpublished Master's Thesis- history Department, (Baghdad: Al-Mustansiriya University- faculty Of Education, 2011), p. 173.

⁽¹²⁾Al-Shabatat, Ali Suleiman, Environmental Management of the Edomites and the Nabataeans between (ninth century BC - and the second century AD), Damascus University Journal, Volume 25, Issue, I and II, 2009, p. 329.

- ⁽¹³⁾Abu Al-Hamam, Nabataeans History And Civilization, p. 181.
⁽¹⁴⁾Pacific, political and Economic Life In the Nabataean Kingdom, p,174.
⁽¹⁵⁾Abu Al-Hamam, Nabataeans History And Civilization, p. 181.
⁽¹⁶⁾Pacific, political and Economic Life In the Nabataean Kingdom, p. 175.
⁽¹⁷⁾Kedar, Y, Water and Soil from the desert, Vol, (London: 1957), p. 181.
⁽¹⁸⁾Moussawi, jawad Matar, And Qais Hatem Hani Janabi, history Of The Ancient Arab Economy, (Oman: Dar Safa for Publishing and Distribution, 2017), p. 262.
⁽¹⁹⁾Fit, Abdulaziz, History of the Arabian Peninsula in Antiquity, (Cairo: anglo-egyptian Library, 1992), p. 162.
⁽²⁰⁾Pliny, Gaius, Natural History, Trans: H. Rackham, (London: 1968), Book 12, p. 75.
⁽²¹⁾Ali, Detailed C7, P69.
⁽²²⁾Khashali, Farha Hadi Atiwi Economic life in the kingdoms of the Levant before Islam - the Nabataeans - Palmyra and the Ghassanids - Unpublished Master's Thesis- history Department, (Baghdad: Al-Mustansiriya University - College of Education, 2004), p. 75.
⁽²³⁾Ali, Detailed C7, p71.
⁽²⁴⁾Khashali, Economic Life In the Kingdoms Of The Levant, P77.
⁽²⁵⁾ Ibid., P78.
⁽²⁶⁾charity, history Of The Nabataean State, AM146.
⁽²⁷⁾Ali, joint,C7, AM pp. 71-72.
⁽²⁸⁾Khashali, Economic Life In the Kingdoms Of The Levant, P80.
⁽²⁹⁾slim, aspects Of Arab History And Civilization, p. 193.
⁽³⁰⁾charity, history Of The Nabataean State, P80.
⁽³¹⁾slim, aspects Of Arab History And Civilization, P29.
⁽³²⁾Ali, Detailed C7, p111.
⁽³³⁾Ibid., p. 111.
⁽³⁴⁾slim, aspects Of Arab History And Civilization, P30.
⁽³⁵⁾Strabo, The Geography, Trans: H.L.Jones, (London: 1983), Book 16, p.23.
⁽³⁶⁾charity, history Of The Nabataean State, p. 139.
⁽³⁷⁾slim, aspects Of Arab History And Civilization, P30.
⁽³⁸⁾Ali, Detailed C7, p. 116.
⁽³⁹⁾Khashali, Economic Life In the Kingdoms Of The Levant, P92.
⁽⁴⁰⁾slim, aspects Of Arab History And Civilization, P30.
⁽⁴¹⁾Khashali, Economic Life In the Kingdoms Of The Levant, P93.
⁽⁴²⁾slim, aspects Of Arab History And Civilization, P31.
⁽⁴³⁾Ali, Detailed C7, p117.

Sources

1. Abu Al-Ghaith, Abdullah
2. Arab Countries in Ancient History, 2nd Edition (No.M: No.M., 2014 AD).
3. Ismail, Helmy Mahrous
4. The ancient Near East and its civilizations, Mesopotamia, the Levant and the ancient Arabian Peninsula (Cairo: University Youth Foundation, 1997).
5. Pro accommodation
6. History of the Ancient Arabs, 2nd Edition (Damascus: Dar Al-Fikr, 1996 AD).
7. Even Philip
8. History of Syria, Lebanon and Palestine, tr: George Haddad, and Abdel Karim Rafiq (Beirut: Dar Al-Thaqafa, 1958).
9. Saleem, Ahmed Amin
10. Aspects of the history and civilization of the Arabs in the world Old Tyre (Cairo: Dar Al Marefa University, 1997).
11. Abbas, Ihsan
12. History of the Nabataean State (Amman: Dar Al-Shorouk for Publishing and Distribution, 1987).

13. Ali, Jawad
14. The detailed history of the Arabs before Islam, 2nd Edition (Baghdad: No.Mt, 1993 AD).
15. Al-Ali, Saleh Ahmed
16. Lectures on the history of the Arabs - 2nd floor (No. :No.Mt, 1954).
17. Developer, Azzam Abu Alhamam
18. Nabataeans: History and Civilization (Amman: Osama Publishing House, 2009).
19. Al-Moussawi, Jawad Matar, and Qais Hatem Hani Al-Janabi
20. History of the Ancient Arab Economy (Amman: Dar Safa for Publishing and Distribution, 2017).

Letters and dissertations

Alkhashali, Farha Hadi Atiwi

1. Economic life in the kingdoms of the Levant before Islam, the Nabataeans, Palmyra and the Ghassanids, unpublished master's thesis - Department of History (Baghdad: Al-Mustansiriya University - College of Education, 2004).

Alhadi, Hassanein Abdulrazzaq Hassan

2. Political and Economic Life in the Nabatean Kingdom, Unpublished Master Thesis- Department History (Baghdad: Al-Mustansiriya University - College of Education, 2011).

Foreign Sources

1. Kedar, Y, Water and Soil from the desert, Vol, (London: 1957).
2. Strabo, The Geography, Trans: H.L.Jones, (London: 1983).
3. Pliny, Gaius, Natural History, Trans: H. Rackham, (London: 1968).