

## **DISEASES, EPIDEMICS, FAMINES, AND THEIR IMPACTS IN THE MOSULI COMMUNITY SOCIETY IN THE 18<sup>TH</sup> CENTURY**

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### **Abstract**

The city of Mosul was a fertile ground for several waves of epidemics and famines that struck it during the 18th century, which had demographic, economic, and cultural impacts on Iraqi society. Based on this, the research dedicated a section to discussing the factors and conditions that contributed to the spread of these diseases and famines in Mosul during this period and their economic and social repercussions on the Mosuli community.

The researchers chose the 18th century because the city was subjected to epidemic attacks from diseases such as plague, cholera, and smallpox, in addition to several waves of price inflation, which were natural occurrences given the deteriorating health and environmental conditions of the population during this period. Among the most prominent reasons were ignorance, weak health awareness, the spread of ponds and swamps, and rising food prices.

The research consists of an introduction and three main sections. The first section focuses on reviewing the key reasons and factors that provided a suitable ground for the spread of diseases and epidemics. The second section is dedicated to discussing the diseases and epidemics that swept through the city during the research period. The third section focuses on the waves of price inflation that affected the city during this time.

**Keywords:** Mosul, plague, cholera, expensive, locusts.

### **Introduction:**

It can be said that there is a close and dialectical link between the spread of diseases and epidemics on the one hand and the occurrence of famines, Najdi locust sweeps and flood incidents on the other. Therefore, it is necessary to give a quick look at the political and economic conditions that Mosul was experiencing during this period.

### **First: An overview of the nature of the political and economic conditions of the Iraqi city in the eighteenth century:**

Despite the distinguished geographical location, which resulted in the diversity of agricultural products of the city of Mosul, it has been subjected to health and economic calamities for several reasons, foremost of which are:

The Ottoman government's lack of attention to health conditions and their lack in many areas. While the style of construction was an additional factor in the spread of many diseases, the city with its castle, walls and historical markets... Devoid of large squares and spaces<sup>(1)</sup>. The streets and alleys almost lack the most basic

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<sup>1</sup>(Ibrahim Khalil Ahmed, "Diseases and epidemics and their repercussions on the society of Mosul during the Ottoman era", Arab Historical Journal of Ottoman

conditions of cleanliness<sup>(2)</sup>, and if we move to the homes of the inhabitants, their design was simplified and uniform, as they contained a central courtyard surrounded by rooms on two or three sides, while the windows overlooked the rooms and not the alley, in order to prevent dust, unpleasant odors and noise.<sup>(3)</sup>

In summer, temperatures reach between (42-44), a degree that creates the opportunity for the activity of many diseases such as dysentery and malaria, offset by a decrease in temperatures to reach (14) degrees Celsius below zero, which definitively facilitates the spread of a number of diseases such as fever, pulmonary thoracitis, influenza and other lung diseases<sup>(4)</sup>.

- **Lack of a water sterilization system:** the population often used contaminated water for drinking and cooking, and the inhabitants brought water from nearby beaches and waterways and from the edge of rivers<sup>(5)</sup>.

- **Poor health awareness:** among the population in the prevention and control of diseases and their dependence on ignorant people, charlatans and charlatans for treatment, offset by the lack of health institutions and the lack of medical personnel<sup>(6)</sup>.

**The location of Mosul on the routes of commercial convoys** coming from northern Iran, especially Tabriz, which exposed Iraq in general and Mosul in particular to the risk of the spread of any epidemic in the event of its spread in Iranian cities<sup>(7)</sup>.

On the other hand, wars and internal and external conflicts have <sup>(8)</sup> had negative effects on famine, owing to the low entry of foodstuffs into besieged cities and their

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Studies (Tunisia), No. 17-18, Al-Nuaimi Foundation for Scientific Research and Information, September, 1998, p. 20.

<sup>2</sup>()Madame Diolfois' Journey from Mohammerah to Basra and Baghdad 1299 AH-1881 AD, reviewed and presented by: Mustafa Jawad, Arab House of Encyclopedias, p. 62.

<sup>3</sup>()Moses der Hakobyan, Iraq's State of Health in Half a Century, 2nd Edition (Baghdad, 1982), pp. 27-28.

<sup>4</sup>()Qasim Al-Jumaili, Iraq's epidemiological history in the last Ottoman era 1850-1918: A study in the light of the documents and archives of the American and British Foreign and Health and other international archives, Dar Dijla, 1st Edition, (Amman, 2017), p. 41.

<sup>5</sup>()Ali al-Wardi, A Study in the Nature of Iraqi Society, (Baghdad, 1965), p. 3.

<sup>6</sup>()Mahmoud Haj Qasim, "Diseases and epidemics that swept Iraq in the Ottoman era and means of prevention", Historical Journal of Arabic Study, (Zaghwat, 2003), p. 105.

<sup>7</sup>()Al-Jumaili, op. cit., p. 41.

<sup>8</sup>()Imad Abd al-Salam Raouf, Mosul in the Ottoman Era during the Period of Local Government 1139-1249 AH / 1726-1834 AD, Maysar Al-Najmawi Library Publications, (Mosul, 1975), p. 78.

high prices<sup>(9)</sup>. In addition, monopoly by some and the accompanying high prices of such goods in local markets have increased.

- **Factional and class disparities and the latter's** dependence on the products of the periphery, as well as the lack of equitable distribution of wealth in both the center and the periphery, while landlords, merchants and aghas dominated the movement of the state's economy, while the heads of clans, tribes, sheikhs and influential people dominated the economy of the rest of the regions and periphery of the state<sup>(10)</sup>.

## **Second: Waves of epidemics in the eighteenth century**

Mosul was exposed to many epidemic waves during this period, which left hundreds of victims, for example, but not limited to the plague attacked Mosul during the years 1407, 1416, 1424, 1434, 1456, 1469, 1591, 1625. It coincided with the spread of drought and famine in the years 1643, 1645, 1651 and 1672<sup>(11)</sup>. At the beginning of the eighteenth century, epidemic activity in Mosul began to be destroyed more than before, in 1702 the **Great Plague** This has caused more than a thousand casualties per day<sup>(12)</sup>.

The scene was repeated again in 1737 and intensified the following year, with about a thousand casualties a day<sup>(13)</sup>. This wave lasted for four months, and it is narrated in connection with this catastrophe that Mullah Abdullah, known as the teacher<sup>(14)\*</sup>, had proposed to the governor of Mosul at the time, Hussein Pasha al-Jalili (1730-1750),<sup>(15)</sup> the reconstruction of the Great Mosque in Mosul, in which worshippers had stopped holding prayers for nearly fifty years due to the severe neglect he was subjected to after the waves of high prices. The governor responded to Mullah Abdullah's request and worshippers returned to prayer in the mosque after the plague had passed<sup>(16)</sup>.

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<sup>9</sup>()Abbas al-Azzawi, History of Iraq between the two occupations of the last Ottoman era 1298 AH - 1872 / 1335 AH - 1917 AD, vol. 8, Arab House of Encyclopedias, (d.m., d.t.), p. 14.

<sup>10</sup>()Sayyar Gemayel, Leaders and Effendiers of the Ottoman Pashas and the Arab Renaissance: The Historical Structure of Modern Iraq (Mosul as a Model), Al-Ahlia for Publishing and Distribution, (Beirut, 1999), p. 133.

<sup>11</sup>()Ibrahim Khalil Ahmed, "Epidemic diseases and their impact on Mosul society during modern times", Journal of Education and Science, No. 9, 1990, pp. 101-116.

<sup>12</sup>()Yassin bin Khairallah al-Khatib al-Omari, The Butter of the Obvious Effects in Earthly Accidents, edited and commented on: Imad Abd al-Salam Raouf (Najaf, 1974), p. 91.

<sup>13</sup>()Al-Jumaili, op. cit., p. 39.

<sup>14</sup>()One of the most influential figures in Mosul.

<sup>15</sup>()Husayn Pasha al-Jalili held the Wilayat of Mosul seven times in a row (1730-1731), 1733, (1738-1740), (1741-1746), (1747-1748) and 1570.

<sup>16</sup>()Jassim Muhammad Hussein Al-Adoul, "Disasters and Natural Phenomena in Mosul through the Writings of the Mosul Historian Yassin Khairallah Al-Khatib Al-Omari", Journal of Mosul Studies, No. 13, July, 2006, p. 7.

In 1756 in Mosul, coughing and vomiting blood occurred, and many creatures died. The Italian missionary Domenico Lanza<sup>(17)</sup>, who was a teacher in Mosul at the time, adds that people's bodies were lying on the side of the road, which led to the spread of malignant fevers throughout 1757, so houses were filled with sick people and cemeteries with the dead. In 1759 measles spread, many children from Mosul and nearby villages died, and in 1760 the plague spread, as large numbers of people perished<sup>(18)</sup>.

In the year 1772, Mosul witnessed the spread of a new plague that arrived in Istanbul<sup>(19)</sup> after it spread in Diyarbakir advancing to it, where the first infections appeared in the northern side of the city, then the epidemic soon spread to the rest of the regions, and no city or village was spared from its effects, as the governor of the city at the time, Fattah Pasha bin Ismail Pasha Al-Jalili, instructed the guards of the city's gates to count the number of funerals that "come out of the wall daily, and it was found at the end of the plague that more than One hundred dead were buried outside the city."<sup>(20)</sup>

Mosul historian Muhammad Amin al-Omari gave an accurate picture of the magnitude of the tragedy experienced by the city during this wave, writing: "We used to pray for funerals at the new gate, and the number of dead who were taken out of that gate exceeded one hundred and twenty."<sup>(21)</sup> Al-Omari adds, "It is known from the statistics of the soldiers assigned to guard the gates of the city, that after the end of the plague, only about fifty of its inhabitants remained alive..."<sup>(22)</sup> In a year, the plague swept through all Iraqi cities, including Mosul, and continued until 1774<sup>(23)</sup>. The Optional Protocol to the Convention on the Elimination

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<sup>17</sup>()Domenico Lanza: Born in Turin, Italy, in 1718, he joined the Order of the Dominican Fathers, where he was sent to Mosul twice, first in 1754, and second in 1764, died in 1774. For details, see: Mosul in the Eighteenth Century according to the Memoirs of Domenico Lanza, Arabization: Pastor Raphael Beda Wade, Modern Eastern Press, (Mosul, 1953), p. 3.

<sup>18</sup>()Ahmed, Diseases and epidemics and their repercussions on Mosul society, p. 22.

<sup>19</sup>()Abd al-Rahman ibn Abdullah al-Suwaïdi al-Baghdadi, History of the Incidents in Baghdad and Basra, edited by Imad Abd al-Salam Raouf (Baghdad, 1978), p. 41, footnote 6.

<sup>20</sup>()Lanza, op. cit., p. 13. According to approximate estimates, the number of victims of this epidemic wave in the city of Mosul alone reached (1000) people out of Mosul's population of (125) thousand people, equivalent to (10%) of the total number of people. Al-Jumaili, op. cit., p. 29.

<sup>21</sup>()Muhammad Amin bin Khair Allah al-Khatib al-Omari, Manhal al-awliyya wa musharab al-asfiyya min Sadat al-Mosul al-Hadba, edited by Saeed al-Dewaji, vol. 1 (Mosul, 1967), p. 186.

<sup>22</sup>()Ahmed, Diseases and epidemics and their repercussions on Mosul society, p. 22.

<sup>23</sup>()The plague began to spread in the cities of Erbil, Kirkuk, Baghdad, Tikrit, Anah, Haditha, Hilla and Basra. For more information, see: J. J. Lorimer, Gulf Gazetteer, Historical Section, vol. 1, (Qatar, 1967), p. 3667; Stephen Hamsley Loncreek,

Smallpox and measles re-spread among Mosul children in 1881, causing large numbers of deaths, and many children lost their sight as a result. Measles and smallpox broke out in 1794 and spread from Mosul to "villages and Arabs descending in their courtyard", and the number of deaths "in Mosul per day reached sixty souls<sup>(24)</sup>", and in 1798 measles and smallpox broke out among the children of Mosul, killing many of them<sup>(25)</sup>.

In 1799, smallpox appeared in the city of Mosul, as the first cases of this disease appeared in the locality of Khazraj, then the disease spread to other shops, and the number of injured who died per day reached one hundred and eighty people, after which it moved to Kirkuk and Sulaymaniyah<sup>(26)</sup>.

At the beginning of the year 1800, the plague spread in most neighborhoods of Mosul, so one hundred and eighty people died per day, and Al-Omari provides a detailed statistic of the number of deaths when he says, "Seventy-five [dead] came out of the new door, twenty-seven [dead] from the new door, twenty-five [dead] from the Auguste gate (Bab Lagash), less than twenty, and inside the country sixty<sup>(60,(27)</sup>. As for the actions of the governor of Mosul, Muhammad Pasha al-Jalili, the sources state that "the governor of Mosul, Muhammad Pasha al-Jalili, went to Sinjar to besiege the Yazidi rebels, and when he returned to Mosul he learned of the existence of the plague and feared for his army, so he kept him out of the city, and then the plague ceased in the same year".<sup>(28)</sup>

### **Third: The waves of high prices that swept Mosul during the eighteenth century**

Although Mosul has the most fertile agricultural land, which used to provide many agricultural crops such as wheat, barley and sesame... The surplus was being exported to Baghdad, Basra and Diyarbakir. The Italian traveler Domenico Lanza, who visited Mosul twice, first in 1754 and second in 1764, praised the fertility of its land and the abundance of its production when he said: "The lands of Mosul extending from the West Bank were all plowed, as were the lands of the distant villages on the east bank, but they exceeded the needs of the wilayat, and perhaps sufficient to meet the needs of the neighbouring wilayas..."<sup>(29)</sup>

Despite these agricultural activities, this city was exposed to severe economic calamities for several reasons that quickly leave their effects on the general economic activities in the city, which can be summarized as:

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Four Centuries of Modern Iraqi History, translated into Arabic: Jaafar Al-Khayyat, 6th Edition, Arab Awakening Library, (Baghdad, 1985), pp. 226-227.

<sup>24</sup>()Ahmed, Diseases and epidemics and their repercussions on Mosul society, p. 22.

<sup>25</sup>()Al-Adoul, op. cit., p. 8.

<sup>26</sup>()Salah Salim Ali, "Mosul in the First Half of the Nineteenth Century", supplements to Al-Mada newspaper, almadasurements.com, accessed 23/11/2023.

<sup>27</sup>()Yassin Khairallah Al-Khatib Al-Omari, Munia Al-Adaba in the History of Mosul Al-Hadba, edited by: Saeed Al-Diujj, Dar Ibn Al-Atheer for Printing and Publishing, (Mosul, 2009), p. 170.

<sup>28</sup>()Ahmed, Diseases and epidemics and their repercussions in Mosul society, p. 23.

<sup>29</sup>()Lanza, op. cit., p. 15.

1. Agricultural production in the city has been negatively affected by climate changes such as floods, lack of rainfall, snowfall, the freezing of the Tigris River<sup>(30)</sup>, as well as attacks by Najdi locusts.
2. The spread of diseases and epidemics in Mosul and neighbouring areas, with the accompanying precautionary measures such as the closure of the city's gates and the cessation of commercial transactions<sup>(31)</sup>.
3. Attacks by Arab and Kurdish tribes on commercial convoys, which affected all commercial activities in the city.

In an attempt to avoid the effects of these negative factors, Mosuli has stored large quantities of grain and other agricultural products every agricultural season to avoid the crises he may face in the coming season. There is no doubt that this measure would contribute to alleviating the prices of some materials as a natural result of the high prices of some materials due to the high demand for them, however, this measure may not be able to achieve its goal, in the event that the agricultural crop is damaged for any of the aforementioned reasons for two consecutive years, and then the crisis exceeds the capabilities available to the city, making it on the verge of a real famine with the possible social tragedies that accompany this famine and may be repeated. The situation and its effects spillover into political life itself.

The sources date waves of high prices in the city during the years 1546, 1591, 1601, 1616, 1627, 1672, 1676, 1687 and 1689<sup>(32)</sup>.

At the beginning of the eighteenth century, Mosul witnessed a number of waves of high prices, the beginning was in 1712, following the snowfall, Mosul was exposed to a wave of high prices called by the sources "the cost of Ibrahim"<sup>(33)</sup>, and what further aggravated the economic conditions of the city<sup>(34)</sup> attacks locusts, which damaged the country greatly until the price of wheat<sup>(35)</sup> to seven dirhams <sup>(36)</sup>.

The tragedy was repeated again in 1725 when locusts attacked agricultural crops<sup>(37)</sup>. In 1742, the rain in Mosul was cut off for about a month and conditions became tighter, which coincided with the freezing of the Tigris River, which resulted in the interruption of transportation and the lack of access to coal and timber, which

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<sup>30</sup>()Rauf, op. cit., p. 279.

<sup>31</sup>()There is a dialectical relationship between famine and epidemics, which is based on human migration between a geographical spot hit by famine and epidemic, to carry this human wave to areas clean of the epidemic. Al-Omari, Monia Al-Adba, pp. 156-157; Al-Jumaili, previous source, pp. 51-52.

<sup>32</sup>()Al-Omari, Monia al-Adba, pp. 156-157.

<sup>33</sup>()Named after the governor of Mosul, Ibrahim Pasha al-Silahdar, 1711-1713.

<sup>34</sup>()Weight is a unit of grain measurement equivalent to 260 kg. Charles Issawi, Economic History of the Fertile Crescent 1800-1914, translated by: Raouf Abbas Hamed, (Beirut, 1990), p. 689.

<sup>35</sup>()Al-Omari, Monia al-Adba, p. 57.

<sup>36</sup>()The dirham, known as the Akja, is a silver coin equivalent to 1,154 grams that was struck during the second decade of the fourteenth century and was discontinued in 1827. Rauf, op. cit., p. 554.

<sup>37</sup>()Loncreck, op. cit., p. 192.



coincided with the freezing of the Tigris River<sup>(38)</sup>. The scene was repeated again in 1743 and in an attempt to search for sustenance, large numbers of villagers poured in, until the people were forced to sell their daughters and children<sup>(39)</sup>. The tragic situation in Mosul was compounded by locust attacks, which ultimately led to the inevitable result of rising prices, the creation of a lot of hunger and the sale of wheat for six pounds for eight dirhams, barley a pound for one dirham and salt for one dirham and a quarter dirhams<sup>(40)</sup>. With the spread of grain monopoly by traders, the Wali of Mosul ordered the arrest and crucifixion of two fodder fodder for manipulating people's sustenance and balances<sup>(41)</sup>. The governor of Mosul, Husayn Pasha al-Jalili, in his province (1741-1746), ordered the construction of a number of bakeries to feed the poor and needy<sup>(42)</sup>, but these measures failed to put an end to the famine in the city because all attempts to import the local population's food needs had failed.

The Tigris River was frozen in 1857, which affected agricultural products and livestock, and the conditions of the city were further deteriorated by the influx of large numbers of residents of the neighboring areas, and the city was not more than these conditions. The locusts even attacked it and planted it in a few days<sup>(43)</sup>. In the same year, malignant fevers spread, filling homes with sick people and cemeteries with the dead<sup>(44)</sup>.

In the years 1778<sup>(45)</sup>, 1784 and 1785<sup>(46)</sup>, Mosul faced a very severe drought crisis, as the rains were completely abated and accompanied by a wave of high prices

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<sup>38</sup>()This year, Mosul was rocked by strife as conflict erupted among the city's residents, who were divided between Bab al-Midan and Bab al-Iraq. Gemayel, op. cit., pp. 125-126.

<sup>39</sup>()Rauf, op. cit., p. 281.

<sup>40</sup>()Gemayel, op. cit., p. 126.

<sup>41</sup>()Ibid., p. 125.

<sup>42</sup>()Abbas al-Azzawi, lawyer, Encyclopedia of the History of Iraq between the Two Occupations of the First Ottoman Era 941 AH-1534 AD / 1049 AH-1639 AD, vol. 4, op. cit., p. 308.

<sup>43</sup>()According to one source, locusts devoured crops on the western side of the city, then crossed the Tigris River and destroyed most of the crops of the villages on the eastern side of the city, before they were fully developed. When it was fully grown and reached the flight stage, its gluttony intensified, so that it affected the crops of beans and watermelons. Al-Omari, Butter of Clear Effects, pp. 113-114.

<sup>44</sup>()Lanza, op. cit., pp. 43-44.

<sup>45</sup>()Imad Abd al-Salam Raouf, "A treatise on the high cost of Mosul in 1297 AH / 1878 AD, www.alukah.net.

<sup>46</sup>() In this year, the sources state that the severe cold damaged the crops of (36) villages, followed by a severe cold that damaged the crops of five other villages, followed by this crisis heavy rainfall and spoiled the crops and seeds, followed by the exposure of the village of Nimrud to the burning of one hundred and twenty mutations of seeds, Al-Jumaili, previous source, p. 126.

and accompanied by a death in livestock, so the cow was sold at the price of the skin, and the good mare was sold for twenty piasters, and the price of a pound of wheat ranged from one and a half dirhams to one dirham, while the price of a pound of barley exceeded the dirham, and the people of Mosul resorted to selling all their savings, while a large part of them preferred to leave the city.<sup>(47)</sup>

The same scene was repeated in 1786, when al-Omari described the magnitude of the disaster that befell Mosul when he said, "The high prices occurred in Mosul and in general countries because of the interruption of rain... Prices rose, parishioners dispersed in the districts, villages were hit, the poor were dispersed, the poor and weak perished, people moved to other countries and spread in the roads and horizons... Had it not been for the fact that God Almighty had brought us from the country of Shahrzoor and the areas of Erbil, the edges of the mountains, souls would have perished..."<sup>(48)</sup>

In 1795, the city was subjected to a new wave of high prices after the invasion of locusts into its lands, and the effects of high prices were illustrated by the high prices of materials, as shown in the following table<sup>(49)</sup>:

#	Product	Price
1	Weight and a half wheat	1 dirhams
2	3 barley talents	1 dirhams
3	1 raisin	10 dirhams and a half dirhams
4	1 cotton	3 dirhams
5	1 Gogh Arm	10 dirhams
6	1 French Gokh Arm	6 piasters
7	1 coffee	30 piasters

Al-Omari states in the events of 1796 that "a great cold occurred east of Mosul, which destroyed the cultivation of seventy villages, including all and half of them, and the impact of this wave continued for the years 1797-1798"<sup>(50),(51)</sup>.

#	Product	Price
1	1 pound ghee	10 dirhams
2	1 pound meat	2 dirhams
3	a pound why	3 and a half dirhams
4	1 pound salt	1 dirhams
5	1 pound honey	6 dirhams
6	1 pound dates	Two and a half dirhams
7	1 pound glue	9 dirhams

Following the rise in the prices of some materials in 1798, a number of crafts and industries were negatively affected by this rise, in this area the price of a pound of

<sup>47</sup>()Omari, Butter of Clear Effects, pp. 154-155.

<sup>48</sup>()Al-Omari, Monia al-Adba, p. 168.

<sup>49</sup>()Gemayel, op. cit., p. 127.

<sup>50</sup>()Al-Omari, Monia al-Adba, p. 169.

<sup>51</sup>()Al-Omari, Butter of Clear Effects, p. 127.



coal rose to two dirhams, which was one of the reasons for the disruption of blacksmithing and crafting craftsmen.<sup>(52)</sup>

Mosul was subjected to a new wave of high prices in 1800, while sources attributed the causes of this wave to the interruption of transportation routes, which affected food prices including <sup>(53)</sup>,

#	Product	Price
1	1 pound dates	4 and a half dirhams
2	1 pound raisins	3 dirhams
3	1 pound fig	3 dirhams

## Conclusion

We reached a set of results, the most important of which were:

- The inability of the local authorities to address these crises, which was negatively reflected in the increasing number of victims of the waves of high prices and epidemics that swept the city of Mosul for close periods.
- There is no doubt that the deterioration of the health situation experienced by all Iraqi cities, including the lack of hospitals and medical staff, as well as their lack of the most basic elements of healthy housing and drinking water, and the lack of a sewage system, was one of the direct causes of the spread of such diseases and epidemics.
- Perhaps the most prominent of these factors is the lack of a transport and communications network in Mosul and then their inability to secure the needs of the city of Mosul in times of crisis, as well as the primitive agricultural methods and grazing networks, which negatively reflected on agricultural production and its inability to meet the needs of the population of agricultural and food materials such as wheat, barley and sesame.

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<sup>52</sup>()Ibid., p. 127.

<sup>53</sup>()Al-Omari, Monia al-Adba, p. 127.