

Spanish Flu in Shiraz from 1918 to 1920

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Abstract. The outbreak of the “Spanish flu” in Fars province, particularly in Shiraz, southern Iran, was a significant historical catastrophe that severely affected the local population. This epidemic began on October 29, 1918, and persisted in multiple waves until 1920. Over the course of three years, Shiraz’s population dramatically declined from 50,000 to approximately 20,000–25,000 individuals. The disease claimed the lives of half of the city’s inhabitants, leaving devastating impacts on its demographic landscape and economic growth. A haunting reminder of this calamity is the Javan Abad Cemetery in Shiraz. The objective of this research is to explore the significance of Shiraz’s local medical history, examining the interplay between the Influenza outbreak, World War I, the presence of British forces, and the resultant human-made famine and malnutrition. The study aims to investigate how the colonial government’s actions contributed to the exacerbation of the Influenza outbreak and the subsequent decimation of the city. Additionally, the research delves into the nature of the disease and the treatments employed by the British forces during that period.

Key words: History of medicine, Spanish flu, Influenza, Iran, British, Shiraz

Introduction

During the Qajar era in Iran (1796–1925 AD), along with the growth of trade and increased connections between cities and villages, contagious diseases spread more than before and caused more significant problems. The severity of these diseases was sometimes so high that they completely paralyzed and depopulated entire cities or villages, and this population decline had a devastating impact on all aspects of life and the economy of the Iranian people. The outbreak of contagious diseases such as plague, cholera, smallpox, and tuberculosis during the Qajar period is extensively reported in historical sources. While the consequences of these diseases were relatively less severe when communities had limited interactions, with increased human

interactions, the repercussions of disease outbreaks also expanded, leading to a rise in mortality rates (1).

However, the response of the Iranian people during the Qajar era to adhering to health measures and preventing immediate deaths was not particularly suitable. As reported by Francis Arthur Cornelius Forbes-Leith, a British military attaché in the Hamedan region, the Iranian society during the Qajar period was largely indifferent to common diseases, considering deaths resulting from them as natural and destined by divine will (2). This mindset is quite similar to the concept of Divine providence in Christian theology, which justifies extraordinary divine intervention in people’s lives, the existence of the natural order of the world, and the prevalence of contagious diseases and mortality (3).

Iran's influenza outbreaks possess a historical background documented by various history researchers. According to the accounts of the British Consul in Bushehr and Iran's representative in the United Nations, Zuka-ud-Dauleh, influenza was virtually unheard of in Iran during the second decade of the twentieth century. However, Dr. Willem Marius Floor, a Dutch historian, writer, and Iranologist, believed that outbreaks resembling Influenza had occurred in the Middle East, affecting Iran (855), Baghdad (1654), Basra (1753), Iran, Egypt, Syria, and Turkey (winter of 1833), and Iran (October 1854) (4-6). Additionally, in the winters of 1877 and 1878, there were equine influenza outbreaks (referred to as Mashmasheh in Persian) that led to the deaths of 2-3% of Europeans and other foreigners in Iran. Regrettably, there is a lack of accurate data on Iranian casualties during these occurrences.

As Willem Floor pointed out, it could be reasonably asserted that influenza had spread in Iran in 1890, 1891, 1895, 1897, 1910, 1912, and 1913, resulting in natural deaths among Iranians. However, prior to "the Spanish flu" pandemic, the Influenza was often conflated with pneumonia, rhinitis, and common cold, and these outbreaks were mostly perceived as insignificant due to their less severe impact compared to the 1918 epidemic, resulting in lower mortality rates (4-6). Alongside the Persian famine of 1917-1919, another consequence of World War I (WWI) in Iran was the occurrence of disease outbreaks that claimed numerous lives.

"The Spanish Flu," a highly contagious disease, entered Iran through British troops during World War I and caused significant fatalities within a span of two years (7). Despite its name, there is a widespread understanding that the Influenza did not originate from Spain. The name "Spanish Flu" likely emerged during the peak of WWI when countries like Germany, Austria, France, the USA, and Britain opted to remain silent about the disease outbreak, considering it a military secret rather than a display of vulnerability during the war. In contrast, the Spanish government chose transparency and openly reported the first outbreak of the disease in Spain. Consequently, the disease came to be associated with Spain. Presently, there remains a debate about the precise origin of the first confirmed

cases, and regions such as East Asia, Europe, and the state of Kansas are considered probable sources (8).

Cholera persisted in Iran for a period of five months, stretching from September 1916 to January 1917, with its initial outbreak occurring in Bushehr (6). The disease's rapid transmission limited people's activities and temporarily hindered the popular resistance against British occupiers (7). In his writings, Chik mentioned that cholera had spread, leading to the death of 33 troops and 56 civilians in and around Bushehr. There were rumors that the illness was brought to Bushehr by the troops, transforming peaceful protests into rebellions. The death toll surpassed 500 by October 3, 1916. During this cholera outbreak, the Persian famine and the vulnerability of the Iranian community in the south of Fars province created favorable conditions for the widespread occurrence of "the Spanish Flu." This disease had a more severe impact on this region and even contributed to the defeat of Solatodole Qashqai (1876 - 1932), the Head of the Qashqai tribe and a warrior against British colonialism, as many of his troops succumbed to the disease, including Mohammad Ali Khan Qashqai, a prominent warrior and tribal leader who died on July 2, 1918 (8). According to Dr. Amir A. Afkhami, the epidemic was most likely the global influenza pandemic known as "the Spanish Flu," which entered Iran through three regions: Kermanshah in the west, Ashgabat in the northeast, and Bushehr in the south. Additionally, the rural population, including villagers and shepherds, appeared to be more susceptible to the disease compared to the urban population (9).

According to Ervand Abrahamian, a history professor at New York University, in the book "A History of Modern Iran," at the end of the Qajar period, Iran had a population of 12 million people, with approximately 60% living in rural areas, 25% to 30% belonging to nomadic and semi-nomadic tribes, and between 10% to 15% residing in urban areas. Other reputable demographers, excluding events such as wars, the Great Famine, contagious diseases, and "the Spanish flu", estimate Iran's population to be less than ten million people in the year 1900 (10).

The subject of focus in this research is "the Spanish Flu," which emerged in Iran towards the end of World War I. The pandemic of "Spanish Flu" swept through

Iran in the autumn of 1918, reaching its peak with a staggering toll of two thousand deaths per week (11). Moberly highlighted the outbreak of the Influenza on October 14, 1918, stating that it had severely disrupted both military and civilian operations. General Douglas urged Indian authorities to halt the sending of additional troops to Bushehr until the outbreak subsided. Moreover, the Indian forces suffered from Influenza complications more than the British forces, resulting in a relatively higher mortality rate among them (8).

Due to the absence of experiments and laboratories about 100 years ago, we have no official statistics on the extent of casualties. However, based on the population figures claimed in memoirs and historical texts, we can make some estimations regarding the number of patients and potential fatalities.

According to British General Frederick James Moberly (1867-1952), the peak of the Influenza occurred on October 23, infecting approximately 1,453 individuals, half of whom were medical staff at the military hospital (8). Mr. Herbert Chik (1882-1951), the Commander of British forces in Fars province, described the spread of the Influenza as a devastating slaughter (7). In October 1918, a combination of the disease, water scarcity, and hot weather resulted in infant mortality. Within three days, 129 children died, including the two daughters of a nomadic commander. The Influenza, which had rapidly spread across the southern region, claimed the lives of hundreds of troops and thousands of locals by mid-December (8). The significant mortality due to influenza also disrupted the annual migration of Qashqai nomads to southern Fars (7). In Fars province, the mortality rate reached 20% among Indian forces and approximately 80% among villagers and tribes (8). "The footstep of the Influenza could be heard from every road" (7).

The magnitude of this disaster was never comprehensively addressed from the perspective of local and regional history in Fars and the city of Shiraz (7). The influenza outbreak in 1918, coinciding with the end of WWI and just before the success of popular forces in southern Iran in expelling the British, resulted in heavy casualties among the forces and their ultimate defeat, altering the course of history (8). This study aims to examine the impact of the Influenza outbreak in Shiraz and the ensuing catastrophes in this city.

Influenza in Shiraz

Before examining the impact of "the Spanish Flu" in Shiraz, it is crucial to analyze the factors that transformed this disease into a catastrophe, ultimately resulting in the devastating impact on the population during this historical period. According to Prince Abdolhossein Mirza Farmanfarma (1857-1939), the governor of Fars, the famine in Fars province and Shiraz was attributed to a combination of reasons, including insurgency, disorder, hoarding, civil war, and natural factors such as drought and locust plague. These elements significantly harmed agriculture and food production (12).

As mentioned in the significant event of World War I, Touraj Atabaki, the chair of Social History of the Middle East and Central Asia at Leiden University in the Netherlands, believes that during World War I, the military forces of Russia, the Ottoman Empire, and Britain entered Iran despite Iran's declaration of neutrality. As a result, the northern regions came under Russian control, the western regions under Ottoman control, and the southern regions, particularly Fars and Shiraz, fell entirely under British control. The British forces, in order to supply their troops at a low cost, resorted to buying grains and hoarding food supplies in Iran, while denying Iran the permission to import food materials. Furthermore, they seized animals such as horses, locomotives, and camels, which were essential for the country's transportation network, causing severe disruption in distribution of food and other goods across the country, with disastrous consequences. This issue directly contributed to the artificial famine in Iran during the war, which was caused by British policies (13).

There are reports about the humanitarian assistance from non-governmental organizations in the United States to Iran during the famine. Additionally, it is said that after Iran requested a loan of one million toman from the United States government, the latter provided a grant to Iran instead of a loan. In the telegrams available from John Lawrence Caldwell (1875 - 1922), the American chargé d'affaires in Iran, in the documents of the U.S. Department of State, it is mentioned that the American people sent over two million dollars in aid to the famine-stricken people of

Iran, but there was no cooperation or assistance from the British to deliver these humanitarian aids to the people in the southern regions, particularly Fars, and ultimately Shiraz, to alleviate the famine (14).

The intentionality of the Persian famine of 1917-1919 is widely accepted by many historians (13). This strategy resembles an experiment previously conducted by the British during their colonial rule in Timeline of major famines in India during British rule from 1765 to 1947, where they aimed to control the population through prolonged colonialism and exploitation. [These deliberate famines began in 1770 and were repeated in 1783, 1866, 1873, 1892, 1897 and 1943.] (15). To cater to the needs of their military forces, the British purchased and stored local food reserves at inflated prices. Simultaneously, they imported wheat and other grains from neighboring countries like Mesopotamia and India. In addition to this, the British imposed an embargo on wheat imports and prevented unloading of cargo at Iranian ports in the Persian Gulf due to the insecurity along the Bushehr-Shiraz route and the presence of anti-British movements in the south. These measures led to malnutrition and food scarcity, making the Iranian population more vulnerable to the outbreak of the Influenza (16,17).

Bushehr, with an estimated population of 30,000 people, was likely the first city in southern Iran to be affected by the disease, presumably transmitted through British warships arriving from India (15,000 infected and around 1,500 dead). As the Influenza spread from this port, it reached Shiraz, which was approximately 150 miles away, with a similar transmission rate, and subsequently extended to other neighboring provinces with great severity. In the northward direction, the Influenza passed through Kazeroon. People fled the affected areas, and local doctors treated patients using traditional remedies (5).

According to Dr. Floor, the population of Shiraz at the time of the Influenza outbreak was estimated to be around 56,000-60,000. The lowest estimate of the death toll was 2,000 deaths within two weeks (5). Local historians claim that over a period of three years, approximately 30,000 people lost their lives to the Influenza in Shiraz. While this might seem exaggerated initially, considering the detailed accounts provided by Sheikh Abdul Rasoul Nayyeri Shirazi, Mirza Aladdin

Hussein Reyis al-Uttaba, Prince Abdolhossein Mirza Farmanfarma (the ruler of Fars province), as well as historians, politicians, and physicians in Shiraz, who presented comprehensive reports on mortality, burials, and subsequent events, it can be deduced that Farmanfarma and Mirza Aladdin were not far from the truth, and the Influenza outbreak likely claimed at least half of the population in Shiraz. Nayyer Shirazi also emphasized that after the disease, encountering someone who was still alive brought surprise and happiness, and for a year afterward, people spent time in cemeteries. The city was filled with screams and cries, as practically every person had lost three or four relatives, and almost no house was spared from casualties. In some households, all residents had passed away, and the bodies were only discovered when the smell of decay indicated the tragedy (18, 19). The entire city was suddenly engulfed in chaos, and the severe illness among medical staff, freight workers, and post and telegraph workers made it even more challenging to provide assistance to those in need. Among the South Persia Rifles (SPR), the death toll was 10% for Iranian forces and one of the Indian military units. A unit consisting of 416 Iranian and Indian soldiers lost 31% of its troops, while another group lost 72% of the Indian forces in garrisons. The disease spread across the province, overwhelming not only Shiraz but also the Qashqai region (nomadic summer areas), east of Shiraz, and beyond Neyriz (5, 9). However, the epidemic was less severe in the southward direction and along the Shiraz-Bushehr Road. The infection rate was higher among young people than older adults and children, as well as among males compared to females. The Qashqai clan reportedly lost over a third of its fighting power. There was a tragic story about some tribal people: five nomads were observed sick by the roadside, and a few days later, the same observer found them dead near a creek. Evidently, they had crawled to the creek to drink water, and their rifles were left beside them without anyone to claim them. The disease would hit a city, village, or route in the form of a 24-48-hour wave (5) (See Figures 1-4).

Arguably the most vivid depiction of the famine and Influenza calamities and the scale of casualties in Shiraz comes from Sayed Mohammad-Ali Jamälzādeh Esfahani (13 January 1892, Isfahan, Iran – 8 November



Figure 1. The old tombstone of Hamza Khan Feyli Next to the tomb of Hafiz in Shiraz (Member of Freedom Demands Fars Democrat). His major donations were made to Rais Ali Delvari to fight British foreigners. He died in 1918 (the end of World War I) as a result of the common Influenza in Shiraz. Geographical coordinate: 29°37'32.8"N 52°33'29.5"E (20).

1997, Geneva, Switzerland), a contemporary Persian writer, translator, and a pioneer of realism in Persian literature known as the father of Persian short story. During that period, while present in Shiraz, he vividly described the harrowing scene: “As the First World War was nearing its end, a dark and dreadful night in the fall of 1918 witnessed the slow passage of three ghastly riders through the city walls. These riders were named “famine,” “Spanish Flu,” and “Cholera,” each wielding swords and whips. The poor, the old, and the young fell like autumn leaves before the cruelty of these riders (22, 23). There was a scarcity of food, forcing people to consume whatever they could find, from inedible objects to animals. Soon, cats, dogs, and crows vanished, and even the mice were eradicated. Leaves, grass, and



Figure 2. Farajullah Khan Ata Al-Dawlah (government official and supporter of the British presence in Fars province). Chief of Artillery of Fars Province Next to the tomb of Hafiz in Shiraz. He died in November 1918. Geographical coordinate: 29°37'32.8"N 52°33'29.5"E (20).

plant roots were bartered as if they were bread and meat. Corpses were scattered everywhere, and desperation led people to resort to consuming the flesh of the deceased. Sometimes, bodies were transported on carts to be dumped into mass graves in the suburbs and buried. Markets and shops stood empty and closed, and there were no doctors, nurses, or available treatments” (22, 23). This account was later corroborated by British brigadier-general Sir Percy Molesworth Sykes (1867-1945). According to his report, in October 1918, one-fifth of Shiraz’s population, which was around 40,000, succumbed to the disease within just a month, making it incredibly difficult to succeed in the war with the Qashqais. Both sides were equally devastated by this severe form of Influenza. His report stated that Iranian leaders hoarded even the burial shrouds, and hundreds of destitute people who sought refuge in mosques died there. More than 600 people in the British army,

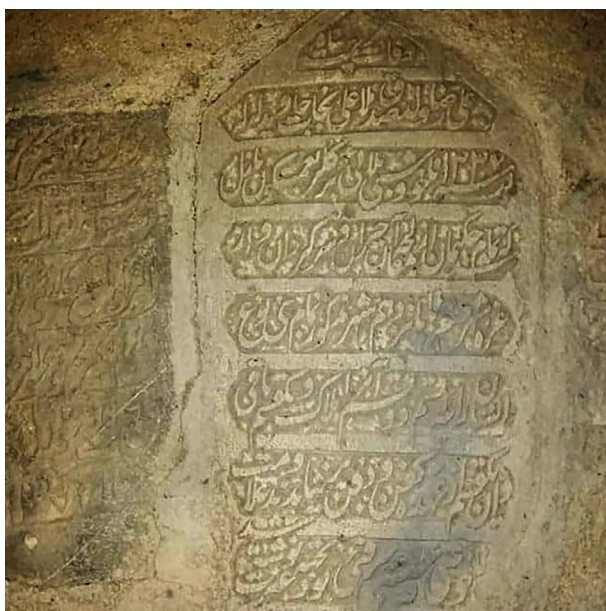


Figure 3. An old tombstone in Mehrenjan, Mamasani, 148 kilometers west of Shiraz, related to “the Spanish Flu” outbreak (November 1918). Geographical coordinate: 30°13'12"N 51°42'17"E.

Persian to English text translation: “Ali-Reza, the son of Sedghe Molla Nejat Javidollah, died in 1337 (AH) [1918 AD]. A disaster plague occurred in the whole region, so that all the sages were astonished and wandering. The disease killed about two-thirds of the people from the beginning of “Safar” until the fifteenth of that month [from 6 November 1918 until 20 November 1918], so that the remaining people could not bury them. The patients complained about sneezing, sore throat, and cough; this has been written as a lesson and warning.”

including both British and Indian forces, fell victim to the epidemic wave, rendering them unable to care for the Iranian population (8, 24). At that time, the governor of Fars and Shiraz, Farmanfarma, who had survived the infection, experienced the heartbreaking loss of his two sons [Mohammad Jafar Mirza and Nizamuddin Mirza] and his wife’s brother [Morteza Khan Heshmat Nezam] due to this dreadful Influenza (17, 21, 25). In a telegraph, he mentioned the severity of the epidemic and believed that every resident of Shiraz was infected, leading to the closure of all markets and shops (26). During that period, the Influenza mortality rate among the British troops was

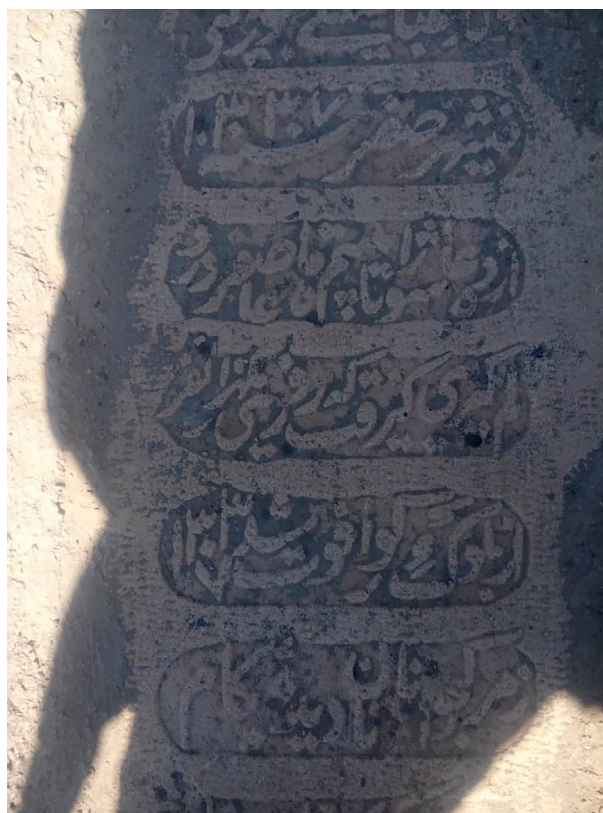


Figure 4. An old tombstone in Kavar city, 45 km southeast of Shiraz, related to “the Spanish Flu” outbreak (16 October-10 November 1918). Geographical coordinate: 29°12'18"N 52°41'24"E.

Persian to English text translation: “From the tenth of Ashura to five months later, it caused thousands of people to die per day from the block of Kavar (a city near Shiraz).”

significantly lower than among the local inhabitants (2% vs. 20%) (22, 24).

The memoirs of Major Gustav Nilström, a Swedish officer, recount the July 1918 Influenza epidemic in Shiraz. He himself fell seriously ill with the Influenza for a period of two to three weeks in August 1918 but managed to overcome the disease (27).

In fact, the high casualties of the disease among the native people of Fars province worked in favor of the British forces, specifically the South Persia Rifles (SPR), General Sir Percy Sykes, and the Governor of Fars, Abdolhossein Mirza Farmanfarma. On one side, the anti-colonial forces in the south, led by tribal commander Solatodole Qashqai, had the British forces

in Shiraz under siege, and there was no possibility of military assistance from Mesopotamia or the British colony of India. The outbreak of the disease among their forces led them to withdraw without a single gunshot, and the spread of the disease unofficially marked the end of World War I in Iran (8). On the other hand, we witness the personal gains of Farmanfarma from the movable and immovable properties of the deceased in Fars province. This greed and avarice, which had been transferred from Ahmad Shah Qajar (reigned from 1909 to 1925), the seventh and last Shah of the Qajar dynasty, to all governors of the provinces through governmental decrees, particularly affected wealthy provinces like Fars, where Farmanfarma ruled. Having recently survived the disease, Farmanfarma, driven by extreme greed, issued orders to his subordinates to fill their carts with all the belongings left behind by the deceased, which were scattered in the cities, tribal areas, and villages of Fars province, and transfer them to Shiraz. Numerous properties also ended up in the possession of the central government and Farmanfarma. In the end, a portion of the cash assets of these ownerless fortunes went to Farmanfarma, and the majority of it went to the central government and Ahmad Shah Qajar (19).

On 22 March 1918, World War I came to an end after four years, and Shiraz marked the occasion with the firing of one hundred cannon shots. Despite the Influenza having claimed numerous lives and continuing to do so, people celebrated the end of the war (28).

Regrettably, despite numerous efforts, access to local Iranian newspaper archives from the historical period of 1917 to 1919 was not possible. However, accounts from newspapers such as Hayat, Taziyaneh Qeyrat, Jam-e Jam, Adl, Entegham, Hafez Esteghlal, Estakhr, Zendegehani, Golestan, Fekr Azad, Baharestan, Khavar, Donya-ye-Iran, Asr-e-Azadi, Gol-e-Atashi, Elm va Tarbiat, Mellat-e-Galoosh, Seday-e-Jonoub, and other local Persian publications attributed the man-made famine, medicine boycotts, and the Influenza epidemic to British colonial policies in the region. Even the Fars newspaper, affiliated with the official British Consulate of Fars Province, acknowledged the Influenza outbreak and offered solutions to combat the disease (29). With the involvement of British colonialists and Iranian paid mercenaries and supporters of

the British, such as the Qawam al-Mulk family, and by pressuring Farmanfarma's government in Fars province, an extensive censorship campaign was launched against newspapers. This resulted in the confiscation of newspapers, revocation of publication rights, and the closure of newspapers in the province. The defeat of the anti-colonial movement in the south due to famine and the Influenza outbreak left the British facing no significant opposition. They sought to bring Iran under their rule through the 1919 treaty with Prime Minister Hassan Vossug ed Dowleh (1868 – 1951). However, the writers of these newspapers did not relent and used their pens to oppose the deal. The October Revolution of 1917 in Russia led to the withdrawal of Russians from Iran, which changed British policies in the country. As a result, Ahmad Shah did not sign Vossug ed Dowleh's treaty. Ultimately, Reza Khan's (Reza Shah Pahlavi, reign 1925 – 1941, was an Iranian military officer, politician, and first shah of the House of Pahlavi) February 21, 1921 Persian coup d'état and Zia'eddin Tabataba'i's (Zia al-Din Tabataba'i, 1889 – 1969, was an Iranian journalist, politician and pro-British, Anglophile, with the help of Reza Shah, spearheaded the 1921 Persian coup d'état. He subsequently became the 18th Prime Minister of Iran during the Qajar period) declaration led to the dissolution of the South Persia Rifles on 22 November 1921 and the expulsion of Britain from Iran without cost (8, 29, 34, 35).

Javan Abad Garden, burial site of influenza victims

Among the ancient gardens in the northern part of Shiraz, in the Old Mosalla Paradise district, within the geographical area north of the Khoshk River to the Kamar Kush Mountains, including Haft Tanan and Quran Gate in Shiraz, many beautiful mausoleums have been constructed. The burial of Hafez in the Old Mosalla Paradise (*Golgasht-e-Mosalla*) area of Shiraz has made this geographical area significant and revered by the people of Shiraz. Many literati and culture enthusiasts of Shiraz express a desire to be buried in this limited space (21).

According to Encyclopaedia Britannica, Hāfez, whose full name is Shams al-Dīn Muḥammad Hāfiẓ (1325/26–1390 AD), is regarded as one of Persia's

finest lyric poets. His poems often evoke memories of the pleasant weather in Ja'far Abad Gardens and the revered Paradise of Shiraz's Old Mosalla, as described in Hafiz's verses (30).

During the late Qajar period in Shiraz, there existed a cemetery known as "Javan Abad Cemetery" or "Javan Abad Garden," situated between the southern part of the Old Mosalla Paradise and the Ali Ibn Hamza Mausoleum, facing Hafez's tomb (31). This garden became the burial ground for numerous victims of the Influenza, most of whom were young individuals. This led the locals of Shiraz to refer to it as Javan Abad, which translates to the "Land of Youth." According to Sykes, desperate people sought refuge in mosques and succumbed to the disease. Notably, the Mosque of Haj Abbas, constructed in 1821 and situated near the Ali Ibn Hamza Mausoleum and Javan Abad Garden, was an important location where around 100 individuals were left with their clothes on and buried in a shallow grave. The bodies were sometimes unearthed by dogs, causing a pervasive stench of decay in the area (19, 24, 31). Hajj Heydar Makari Kholari, a renowned Pahlavan warrior at Shai Dai'i Allah Gate, contributed 5,000 IRR (equivalent to 30,000 USD a hundred years ago) for their burial and grave stones. He personally washed the corpses and dug graves for the deceased (32). (Figure 5).

According to the Ministry of Interior document, with the reconstruction of Javan Abad Garden in 1937 by the Fars governorate, burials in the area were prohibited. Once again, the garden was transformed, and from then on, to erase the bitter memory of the death of Shirazi youth, it became known as the famous National Garden. Shortly after, due to its pleasant environment and climate, it was put to improper use and leased to an individual who, without permission, served alcoholic beverages in the restaurant he had established there. As a result, according to an order issued on October 13, 1952, from the Ministry of Interior to the Fars governorate and Shiraz municipality, the restaurant was closed to preserve the dignity of the Old Mosalla Paradise area in Shiraz (21, 31). (Figure 6).

However, for a short period until 1986, the National Garden was used as a zoo. The Shiraz municipality undertook the restoration, repair, construction of marble fountains, and planting of new trees, transforming this beautiful environment into a park, which became a recreational and leisure destination for Shiraz families. Similar to the time of Hafez, the garden became filled with orange trees, and during Ordibehesht, which corresponds to the months of April and May in the Gregorian calendar, the scent of orange blossoms pervades the garden every year (21, 31). Within the Javan Abad Garden complex, several

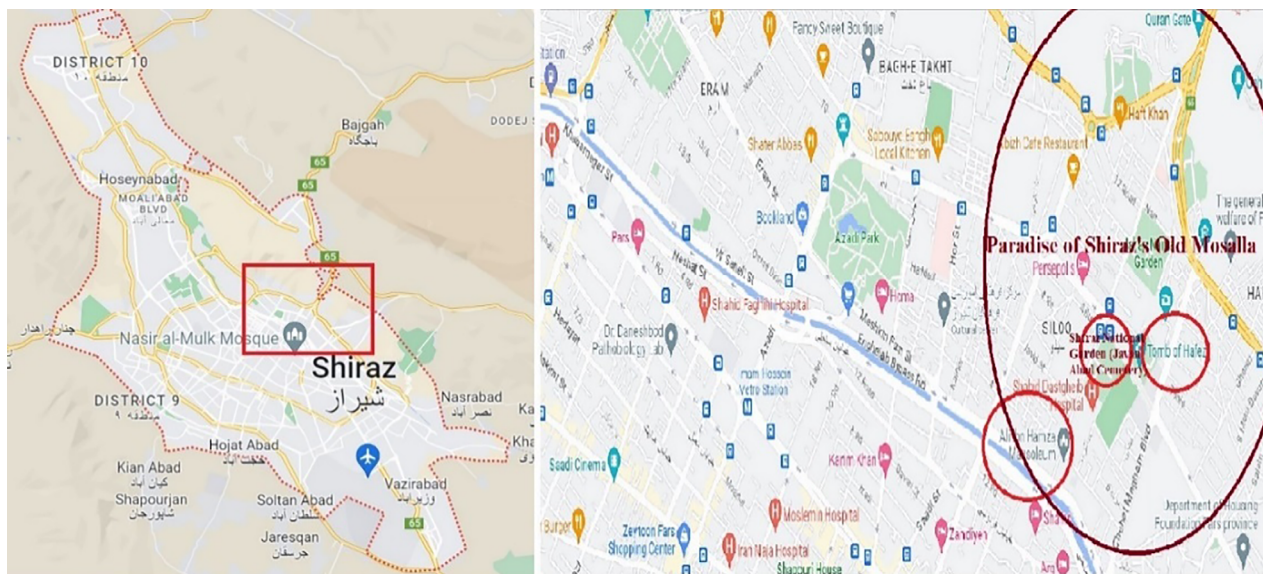


Figure 5. The Old Mosalla Paradise (*Golgasht-e-Mosalla*) area of geographical limits of Shiraz.

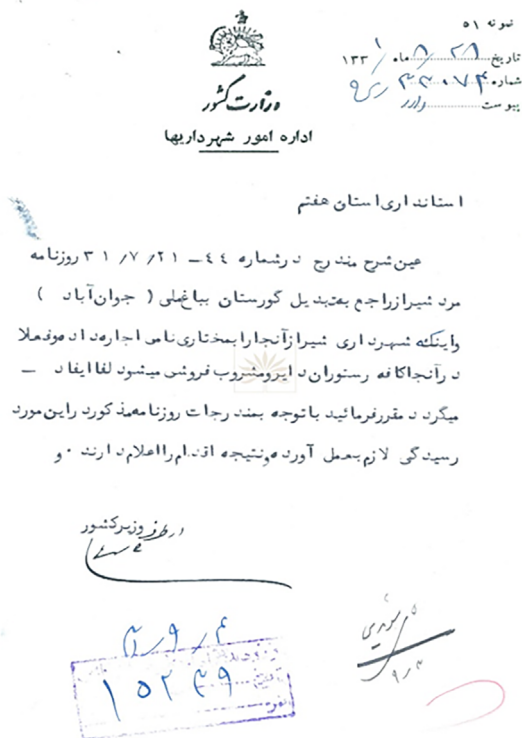


Figure 6. Official decree of the Minister to convert Javan Abad Cemetery into a national garden.

buildings have been constructed, including: Javan Abad Cemetery underwent significant transformations over time, being converted into the Fars Industrial Conservatory (now known as Taleghani Conservatory, 1928), the National Garden Park (1952), and Shahid Dastgheib Hospital (also known as Soraya Hospital, Shiraz, 1950). The National Garden, alternatively known as Javan Abad Garden, stands today as a picturesque reminder of the less pleasant historical period marked by the outbreak of “the Spanish Flu” during the Qajar era (31, 33). (Figure 7).

Conclusion

The outbreak of “the Spanish Flu” in Shiraz, Fars province, southern Iran had devastating consequences, and it played a significant role in furthering British colonialism. The British engaged in dishonorable actions, creating a human-made famine that led to



Figure 7. Shiraz National Garden (Javan Abad Cemetery).

severe malnutrition and food shortages in the region, particularly in Shiraz. The subsequent outbreak of “the Spanish Flu” dealt a final blow to an already weakened population in Iran. The disease spread in multiple waves throughout Shiraz, resulting in widespread casualties and hampering economic development at the end of the Qajar era. While British troops and Indian mercenaries were affected by the disease, their access to adequate facilities such as proper nutrition, supplements, and medical care helped reduce their casualties. In contrast, the local inhabitants suffered greatly due to the scarcity of these resources, leading to a high number of fatalities. Consequently, the only visible development in Shiraz during this time was the emergence of cemeteries like Javan Abad Garden. This epidemic had a profound impact on Iranian history, as it significantly reduced the number of capable warriors, thereby paving the way for British influence and ultimately enabling the success of the February 21, 1921 Persian coup d’état by Reza Khan, which led to the downfall of the Qajar dynasty. The historical British approach of exerting pressure, implementing food and drug boycotts, and creating human-made famines, which subsequently triggered fatal outbreaks of cholera and “the Spanish Flu,” proved to be a catastrophic blow. These calamitous events resulted in the death of approximately one-fifth, and in some areas, up to half of Iran’s population in the early 20th century.

However, some historians, such as Sir Percy Molesworth Sykes’s supervisor, attempted to portray

a lower mortality rate during the “Spanish Flu” outbreak in Iran. Even Cyril Lloyd Elgood (1893–1970), a British doctor and historian, is silent about this in his book “Medical History of Persia and the Eastern Caliphate from the Earliest Times Until 1932”. Nevertheless, Document Center of the United States Department of State and local historical sources present a different perspective, providing evidence of the death of over fifty percent of Shiraz’s population during this tragic period.

It should be mentioned that the death toll from “the Spanish Flu” outbreak had several consecutive impacts in Iran. The severe shock caused by the Spanish Flu’s prevalence in Iran, coupled with its heavy toll on society, led to a paradigm shift in the people’s approach to health and the value of life after centuries. This transformation continued until the concept of disease prevalence in the Iranian society became considered a natural occurrence rather than a divine decree. The issue of preventing disease-related fatalities through proper health measures became a matter that the Iranian society, like other civilized nations, could address by taking appropriate preventive actions.

In this context, the role of Prince Abdolhossein Khan Farmanfarma, a prominent ruler, prime minister, and politician in contemporary Iranian history, deserves special attention. Farmanfarma, deeply affected by “the Spanish Flu” that had brought him to the brink of death and having witnessed the catastrophic loss of half of Shiraz’s population firsthand, realized the potential of a large scientific and research institution. He made significant contributions to this endeavor by renaming himself in an attempt to build a reputable legacy. After completing his mission in Fars, and understanding the critical importance of preventing another outbreak of contagious diseases in Iran to avoid potential devastation, Farmanfarma recognized the need for a significant scientific and research institute. The current location of the Pasteur Institute in Tehran, covering an area of 22,549 square meters, was dedicated by Farmanfarma in 1920. This significant contribution was made possible by the seizure of numerous unclaimed properties and estates acquired as a result of “the Spanish Flu” outbreak. Initially, a cash sum of ten thousand tomans (One million two hundred thousand dollars) was contributed by Farmanfarma,

followed by a further allocation of fifteen thousand tomans (One million seven hundred thousand dollars) approved by the government cabinet. Subsequently, his son, Sabar Farmanfarmaian (1912–2006), an Iranian physician and politician, who later served as the Minister of Health under the government of Mohammad Mosaddegh (1882–1967), and one of the presidents of the Pasteur Institute of Iran, was encouraged to study medicine and contribute to the field of health and healthcare in Iran. Sabar Farmanfarmaian also donated several other endowed lands to strengthen the Pasteur Institute (8).

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