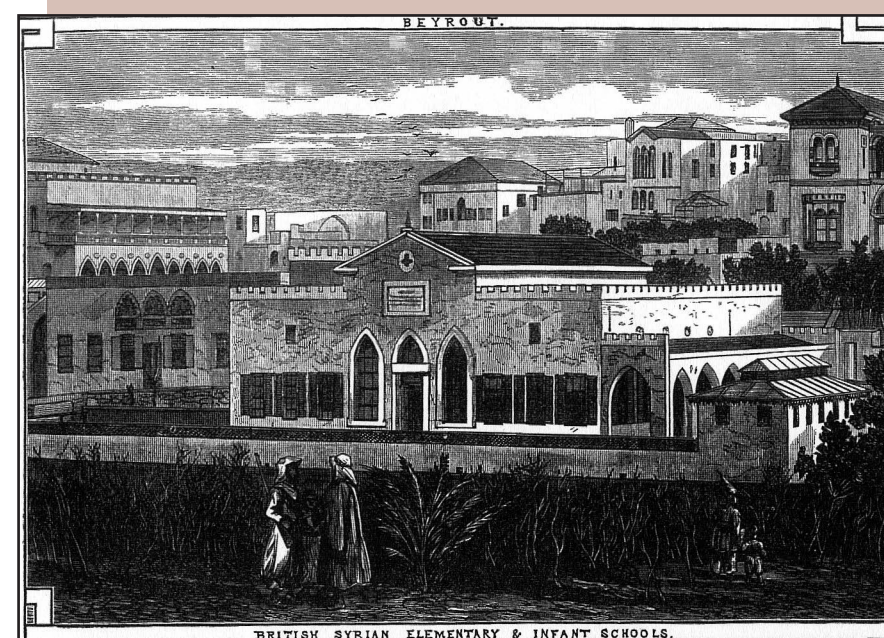


The early history of smallpox vaccination in Beirut was marked with religious controversy, excommunications and persecutions. The vaccine based on infectious material from cowpox¹, was first introduced in the 1820s by Pierre Laurella, an Italian medical doctor resident in Beirut. Laurella was a specialist in this field, since he had received his medical accreditation from the Italian Academy of Medicine upon publishing his research on smallpox vaccination². In addition to his medical practice, Laurella served as the Consul of Austria and Tuscany³. Owing to his diplomatic status he enjoyed the trust and respect of the upper stratum of Beirut's society, resulting in an unquestioning acceptance of his novel immunisation method⁴. His new vaccination procedure met with considerable success, which prompted other less qualified physicians, 'half physicians' and even missionaries and priests, to administer the novel vaccine to their parishioners and patients. As a result, a fierce—and not always professional—battle over the souls of the Beirutis by means of prophylactic medicine took place. One of the very first to practise the new vaccination technique was Rev. Isaac Bird, an American Protestant missionary, who had not had proper medical training⁵. In 1828 he undertook to vaccinate some of his Christian Maronite neighbours in Beirut. His attempts to provide preventive medicine to the 'oriental Christians' came at a considerable moral cost to those vaccinated, as will be shown later. Why did the American missionaries who did not have suitable medical education decide to practice medicine? One of the early American Protestant missionaries could eloquently answer this query. Few years before Bird started vaccinating his neighbours, his colleague Rev. William Goodell stressed the utmost importance of sending a medical doctor as a missionary to Beirut. He was fully convinced that a physician would definitely be able to spread the Protestant cause among the Arabs. Furthermore, according to Goodell, a medical missionary would be perceived as the *Messiah*, and flocks from near and afar would follow his teachings, once they could see concrete proof of his healing wonders. He elaborated on his belief as follows in a letter published in the Boston-based *Missionary Herald* dated January 24, 1824:

A pious and skilful physician would be an important addition to this mission, not only as it respects the life and health of our own families, but as it respects the temporal and spiritual good which he might be the means of doing in all this country. He would be literally followed by "the lame, the halt, and the blind"; and would have more influence in the character of a physician than in any other character. The Arabs have several times brought their sick to us to be healed, and have sometimes hailed us as we passed their



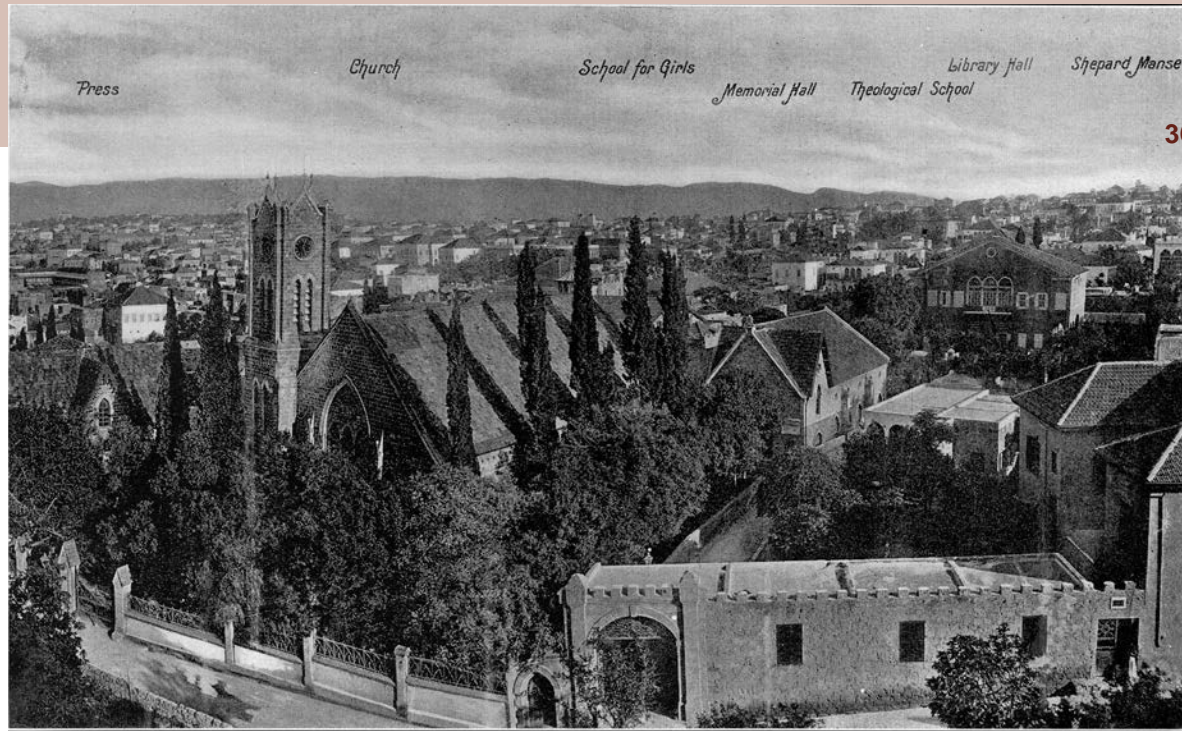
British Syrian Elementary & Infant Schools, 1875, *The Illustrated London News*, July 3; private collection Nadim Shehadi.

*went about doing good"*⁶.

The Protestant missionaries were not the first to realize the advantages that medical practice could add to their evangelical cause. Catholic Italian doctors practiced western school medicine throughout Syria as early as the beginning of the 19th century, where Catholic churches and different consular delegations recruited them and made use of their services⁷. In 1831 Jesuit priests returned to Mount Lebanon and a properly trained medical doctor was an adjunct member of their mission. Henri Henze, the Jesuit priest doctor was of German origin. He received his education at the medical school of Hanover⁸. Dr. Henze was influenced during his medical studies by the ideas of Samuel Hahnemann. Hahnemann advocated preventive medicine and minimal use of medication and surgery; he is considered to be the father of homeopathic medicine⁹. Dr. Henri Henze followed in his medical practice the directives of Hahnemann¹⁰. There exist no direct evidence that Henze practiced vaccination against smallpox, however, knowing his great admiration of Hahnemann's ideas on prophylactic medicine, it is highly plausible that Henze used the cowpox inoculation in his practice. A large number of reports sent by the Jesuits from the Lebanon to Rome, were euphoric about the achievements and the medical and spiritual conquests accomplished by Dr. Henze¹¹. He treated patients in Mount Lebanon, Beirut and even the capital Istanbul. In 1842 he was offered the post of private doctor to the Grand Vizier Mehmet Izzet Pa'a¹². The success of the Jesuit priest led the people of Mount Lebanon to grant him the epithet the victorious doctor (*al-h?ak?m Nas?r*), and his colleagues wrote "Les notables, les fidèles et les infidèles, vous remercient vous et nous pour ce Frère médecin, Phénix en ce pays¹³."

The Maronite patriarch Yusuf Hubeish was positively inclined to new methods of medical treatments. The Jesuit priests reported that he

dwelling, to know if we understand any thing of medicine. It is a matter of grief to us, that we can do so little for their souls or for their bodies. But we endeavour in our prayers to command them to the Great Physician. May we be more and more like him "who



American Mission, Beirut, Syria, H. H. Jessup, 1910, *Fifty-Three Years in Syria*, London & Edinburgh.

repeatedly asked them to increase the number of their medical priests. He expected medicine to bring about “a great deal of good for the country¹⁴.” As will be presented below, the medical activities of the Maronite priests especially in the field of preventive medicine, namely the Jennerian vaccination against smallpox, is another proof of his encouragement of the novel medical techniques¹⁵.

The protestant pastor Isaac Bird, a layman in the field of medicine, had exceptionally high hopes from a medical missionary. He restated the case first advanced by his colleague Goodell a few years earlier, asserting that the mission would not only benefit from the career but also from the person of a successful missionary physician. According to Bird, a medical doctor would certainly add impetus to the proselytising endeavours of the protestant missionaries, because he would be granted unrestricted access to the most important personalities in Syria, the field of their proselytising activities. society. Moreover, he would bestow upon the Protestant missionaries an aura of respectability, for he would be considered by his host society as an unquestionable authority. In 1832 he wrote the following letter published in the *Missionary Herald* where he listed a number of reasons showing the necessity of a medical missionary:

Prospects of Usefulness for a physician

You wish us to give the reasons why a physician should come hither, that you may be able to send them to individuals. I think they must have been stated in previous communications. But among the obvious reasons are:

1. Christian philanthropy. Hundreds of people being in a suffering state from sickness here, at all times of the year, who suffer or die as the case may be, without the least radical relief.
2. The prospect of influence with men of consequence, who

might favor the case of religion.

3. The hope (after a time) of a handsome support from his practice.

4. The direct access, which he might procure, for other missionaries, to the persons and friends of his patients.

5. The general air of respectability and consequence, which he might throw over the missionary families, when known to be in their intimate friendship.

6. The unostentatious, inoffensive way in which he may drop his remarks on religious subjects, answer inquiries, remove prejudice &c. in bigoted families or companies, where a missionary would not be heard.

7. The possible prolongation of the life of the missionaries, and the certain relief of their minds from a great deal of anxiety, which more or less impedes their work. These reasons occur to me at the moment, and I put them down without regard to methodical arrangement¹⁶.

The reasons stated in Bird's letter clearly show that he was aware of the medical and social success of the Jesuit missionary Henri Henze.

The small protestant mission in Beirut did not wait for a physician to join their ranks. Isaac Bird took matters into his own hands and started administering gratis smallpox vaccine on his Maronite neighbours as early as 1828. Through the limited medical care the missionaries sought to establish a better rapport with the 'oriental Christians' and eventually win them over. However, Bird's medical knowledge was very restricted and he was not able to provide more than prophylactic measures against smallpox. Evidently the missionary's attempt did not pass unnoticed by the attentive Maronite church. Its dismayed priests, in turn, resorted to offering members of their parishes similar services¹⁷. The Maronite church took a very firm stance against Bird's medical activity. It excommunicated those resorting to his medicine. Isaac Bird's journal contains the following vivid and telling account of the early days of the Protestant missionary's involvement in smallpox vaccination in Beirut:

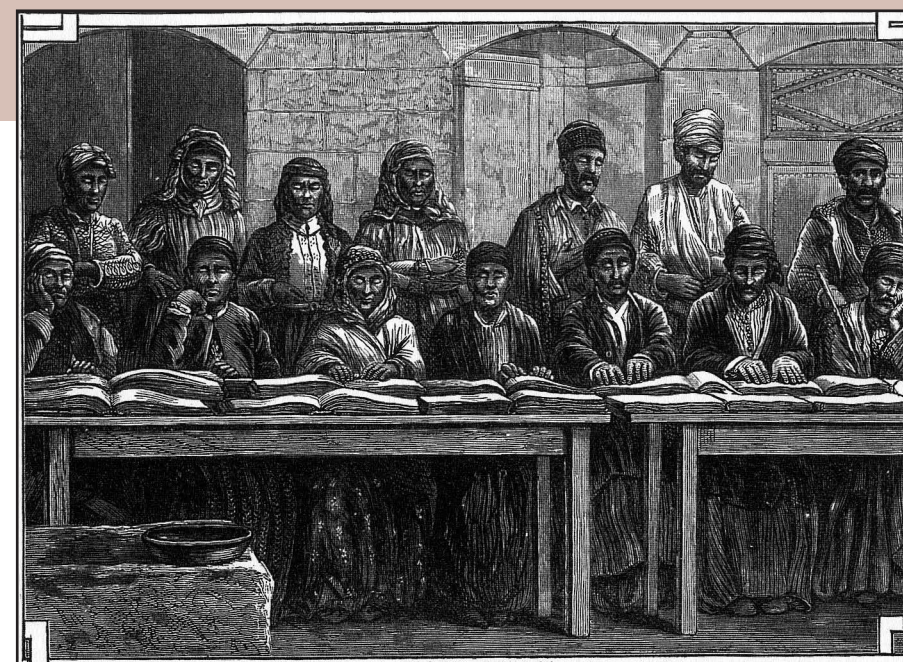
[June 17, 1828] Priest George, this morning, came into our neighbourhood, to visit and converse with one or two families who had transgressed the orders of his holiness the [Maronite] patriarch. He was seen from our windows standing before the door of one of the offending neighbors, and calling out to them in anger; “You have

been to the Bible-men for medicine. You have conversed with them, and even with that accursed excommunicated nurse. You are, therefore, under excommunication from his holiness, and cast out and hated of God"...He is suspected of being particularly displeased at our giving medicine and medical advice to his people, because he is half a physician himself. Perhaps I have taken from his pocket a few piastres also, by lately vaccinating, gratis, eight or ten of the neighboring children¹⁸.

[June 24, 1828] Priest George, it seems, was really in earnest the other day, for he this morning declared in the church that all who had received medicine of the Bible-people, or had conversed with the excommunicated individuals of his communion, were under excommunication, and after the services were over, brought a paper to our neighbors to be subscribed by them, and sent to the patriarch¹⁹.

The Papal delegate Monsignor Gandolfi kept a watchful eye over the suspicious medical activities of the 'Bible-men' and resolutely supported the Maronite patriarch and priests in their feud with the protestant missionaries. Monsignor Gandolfi tried to undermine the latter's efforts by introducing vaccination free of charge. He convinced the governor of Mount Lebanon, Emir Bashir II (governed 1789–1840), to grant Dr. Pierre Laurella the exclusive right to administer vaccination in Beirut and Mount Lebanon²⁰. However, the monopoly of the Italian physician came to an end with the Egyptian occupation of Syria in 1831. In the subsequent period the new immunisation technique became widespread in many parts of Syria, where "the population submitt[ed] to vaccination"²¹.

The Medical scene in Syria was not the vacuum the Protestant and Jesuit missionaries wanted their coreligionists and superiors in Boston and Rome to believe. A method of immunisation against smallpox existed in Syria prior to the arrival of both these proselytising groups. This method of immunisation is known in English as variolation. Vaccination gradually replaced the local and old practice of variolation, i.e. immunisation by means of transfer of smallpox matter from an infected person to a healthy one. Variolation was effected by an elder female member of the family, when there was an apparent need for inoculating the children in the household. Infectious matter from the pustule of an already infected brother, sister, cousin or neighbour was extracted and administered to the healthy children. The inoculum was taken from a patient on the way of



British Syrian Schools at Beyrouth, Blind School; *The Illustrated London News*, 1875, July 3; private collection Nadim Shehadi.

recovery with a subsiding fever, i.e. when smallpox had already lost most of its toxicity and the donor's immune system had already developed antibodies to fight it, thus reducing the risk of spreading the infection by means of vario-

lation²². The infected children were isolated and "excluded from view as carefully as possible", because smallpox was "supposed to be communicated by a glance of the eye"²³. Through this old method of variolation and isolation of the infected members of the family, albeit for the fear of the evil eye, the spread of the disease was frequently prevented. Variolation was widespread among Muslims and Christians alike, given that it was an inexpensive method, which only required the expertise of a mother or grandmother, but not the costly help of a medical doctor. However, it was not entirely without risk²⁴.

In 1842 a report in the *Missionary Herald* attests to the fact that vaccination helped to reduce child mortality in some parts of Syria. The missionary Beadle reported that "smallpox is not uncommon, but as vaccination has been introduced to some extent, its ravages are not severe"²⁵. Although vaccination was becoming increasingly popular in Syria in the 1840s, the quality of the vaccine was not subject to control and the efficacy of vaccination was not properly verified. Until that time there existed no official body responsible for providing safe vaccine and for preventing or prosecuting malpractice. Due to the lack of such authority, the demand for the vaccine undoubtedly tempted many unqualified or self-styled physicians to administer vaccination. This had severe consequences when obligatory vaccination was introduced and implemented at a later stage throughout the Empire by the newly established municipalities. In 1849 the American missionary and medical doctor Cornelius van Dyck described the situation as follows:

Within a few years, confidence in vaccination has been greatly diminished by the fact that many vaccinated persons have latterly suffered from smallpox. But this is easily accounted for by another fact, namely that the majority of those who have gone about the country vaccinating, have not been able to distinguish a genuine



British Syrian Schools at Beyrouth, Boys School; *The Illustrated London News*, 1875, July 3; private collection Nadim Shehadi.

pustule from a spurious one, supposing that, the larger the sore chanced to be, the more effectual would be the vaccination²⁶;

It seems that the struggle caused by

the smallpox vaccination between the American Protestant missionaries and the Maronite church increased in sharpness during the 1840s. The American missionaries were finally capable of claiming a higher moral ground vis-à-vis the oriental churches, for they could now count an accredited physician among their ranks, namely Dr. Cornelius van Dyck, who had arrived few years earlier in 1840²⁷. This professional medical doctor stated his very low opinion of physician priests and belittled them in an article published in 1849. He did not mince his words in ridiculing the local priesthood. He wrote the following:

In many villages of Mt. Lebanon, the priest, who usually knows as much about medicine as a 'green goose' acts in the capacity of physician. But some notorious cases of mismanagement having hence occurred, the lower clergy have lately been forbidden by their superiors to meddle with physic, except so far as to draw blood, when no other person can be obtained to perform the operation...²⁸

It is worth mentioning here that Cornelius van Dyck kept silent about the fact that his colleague Isaac Bird had "meddled with physic" in exactly the same manner.

Most probably due to flagrant malpractice by untrained men claiming knowledge of the new vaccination technique based on cowpox, the trust of some Ottoman Syrians in the effect of vaccine was shaken. Many parents lost their confidence in the novel medicine and attributed the death of their children to vaccination. It is highly plausible that some children were vaccinated when they were already infected. In the case of smallpox the incubation period, i.e. the time between infection and the manifestation of symptoms, ranges from 10 to 14 days. If symptoms became manifest shortly after vaccination, they were most probably discounted as side effects and hence not properly treated.²⁹ Needless to say, the out-



British Syrian Schools at Beyrouth, Girls School; *The Illustrated London News*, 1875, July 3; private collection Nadim Shehadi.

come was frequently fatal.

The direct intervention of the Ottoman state in smallpox vaccination started in the 1840s. The first public vaccination campaign took place in Istanbul in 1840, fol-

lowed by a second one in the following year, when 1705 children were vaccinated³⁰. One may deduce from the small number of the vaccinated children—in relation to the population of Istanbul at that time—that the campaign was not a major success. A smallpox epidemic debilitated the city in 1844 and 1845, a fact which called for swift and firm action on the part of the state. In the following year Sultan Abdül-Mecid (reigned 1839–1861) issued an Imperial Prescript (?rade), making the vaccination of children mandatory throughout the Ottoman Empire³¹. However, there were not enough Ottoman physicians to put this Imperial Sanction into practice in the capital, let alone in the distant fringes of the Empire. The Sultan in person started a remarkable and a highly visible campaign against smallpox in 1845. The main objective of the Sultan's intervention was to introduce the new method of vaccination to some of the remote areas outside the capital Istanbul. The Sultan, himself a victim of smallpox with the typical scars on his face, went on a vaccination promotion campaign accompanied by 500 cavaliers, the imperial music band and his royal physician³². The immediate aim of the campaign was to introduce vaccination to some of the farms and villages in the Asiatic hinterland of Istanbul.

In 1846 the efforts to spread the smallpox vaccination in the empire were enhanced. Special corps of medical doctors and assistant doctors from Istanbul and two young apprentices from each Ottoman province were trained in the new vaccination technique³³. In order to encourage a number of youth from the provinces to join the vaccination training programme in Istanbul, they were exempted from military service³⁴. These medics were given the title of vaccination technician³⁵. However, there is no evidence that such technicians were available in Beirut in the 1840s and a large part of the 1850s. In 1858 vaccine was sent from Istanbul to the Ottoman military doctor in the city. Lieutenant Dr. Ibrahim al-Najjar announced that he had appointed a technician to administer gratis vaccine on the children of willing parents on Mondays and Thursdays³⁶.

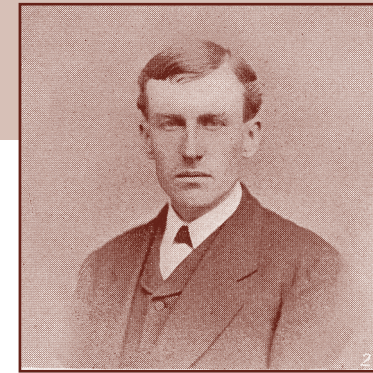


Rev. George E. Post
H. H. Jessup, 1910,
*Fifty-Three Years in
Syria*, London &
Edinburgh.

The first documented civil—neither military nor missionary—smallpox vaccination campaign took place in Beirut in 1861.

One year earlier, the very first Council for Municipal Organizations was established in Beirut. Hence, as of 1860, there existed in the city a body that could supervise health matters. In one of its early meetings, the Health Council—a branch of the Council of Municipal Organizations—deemed it beneficial to the health of the public, especially the children, to offer vaccination against smallpox free of charge on two separate days every week. It presented its decision to the Council of Municipal Organisation, which gave its consent and announced the free vaccination campaign in the form of official placards (*i'l?n?t*) that were posted in all the streets and alleys of the city. These announcements, along with an explanation regarding the procedure of the vaccination and its benefit to children's health, were published in two consecutive issues of a Beirut newspaper ³⁷.

After the first vaccination initiative by the Council of Municipal Organization in 1861, references to smallpox in the local press become scarce. However, matters changed in 1878, when the municipality in collaboration with the Council of Public Health in Istanbul (*meclis-i umur-i sihiyye*), reintroduced gratis inoculation against smallpox. It was in the context of this large-scale public vaccination campaign that the municipality published an announcement in the local press that all the children of the city should receive inoculation against smallpox ³⁸. The municipal medical doctors were in charge of administering the vaccine ³⁹. This announcement was followed by a campaign that lasted for a period of three months. It seems, however, that Beirut citizens remained rather indifferent to the call of the municipality. The campaign of 1878 coincided with an outbreak of the disease along with other fevers ⁴⁰, a fact which had most probably made the parents even more reluctant to have their children vaccinated ⁴¹. In the following year, the municipality made vaccination obligatory. Parents were subject to the payment of a heavy fine, if they neglected to have their children vaccinated during the campaign, which was extended to six months ⁴². Although it is not clear whether the municipality was able to enforce obligatory vaccination, it is evident that it resorted to the help of the quarters' headmen or elders (*mukht?r?n*) to report cases of negligence. The municipal doctors as well as the physicians of the Ottoman military hospital in Beirut paid regular visits to the schools in the city to inspect the general health condition of the pupils ⁴³. Every year the Beirut newspapers informed the public about the suitable season for vaccination (*mawsim al-talq?h?*). As it is evident from the advertisements in different local newspapers, the vaccination cam-



Rev. J. S. Dennis, H.
H. Jessup, 1910,
*Fifty-Three Years in
Syria*, London &
Edinburgh.

paigns were henceforth repeated annually ⁴⁴. In Beirut, the municipality tried to establish vaccination as an annual precaution and not only as a panic reaction to outbreaks of smallpox ⁴⁵. In some cases, when symptoms of smallpox appeared, and its spread was feared, Beirutis who had already been vaccinated, whether children or adults, were urged to go for booster epidermal grafting of the inoculum ⁴⁶.

It seems that the efforts of the municipality to inoculate the largest possible number of children in Beirut against smallpox were not entirely successful, especially during the early years of the campaign. In 1884 and 1885 smallpox reached epidemic levels in different urban centres in the province of Syria ⁴⁷. The disease claimed the lives of at least fifty children in the city of Tripoli alone ⁴⁸, and Beirut also witnessed an outbreak of the disease. One hundred and ninety four Beirutis suffered from smallpox infection, 39 of them died from the illness itself or from medical complications caused by it. Niquila Nimr, a Beirut medical doctor, reported that most of the smallpox patients did not consult a physician, and 89 percent of those who died had not been vaccinated. Some of the fatalities occurred in quarters where only 15 percent of the inhabitants were not vaccinated. Dr. Nimr implored the Beirut citizens to consult a specialist in the case of a medical emergency, reminding them that negligence in health matters, especially regarding vaccination, could be fatal ⁴⁹.

The reluctance of the Beirutis to have themselves and their children inoculated was interpreted by Henry Jessup, an American missionary based in Beirut, as a mere act of fatalism. He reported about this unwillingness in the first person plural as if the Beirutis themselves were speaking: "What, said they, shall we resist the decree of God? And in like manner they resisted the introduction of vaccination, which had been assigned as a preventive of a virulent disease"⁵⁰. However, there exists no evidence in the contemporary press or religious literature to vindicate Jessup's opinion. In contrast to Beirut, in 19th century Britain religious prejudices against smallpox vaccination were strongly expressed⁵¹. Furthermore, many Beirut families had resorted to variolation prior to the introduction of vaccination as a preventive measure against smallpox. Keeping in mind the abuse of vaccination that had taken place in the 1840s and 1850s in Syria, many Beirutis must have lost their belief in this medical precaution. The popular belief was that vaccine not only caused smallpox itself, but other fevers as well; this made many Beirut parents reluctant to vaccinate their children⁵². In 1887 the municipality published long announcements, urging citizens to be inoculated regardless of their age, and it dismissed the popular ideas as false⁵³.

The municipality increased its efforts to convince the reluctant Beirutis to accept vaccination. It resorted to two methods: Firstly, a number of articles and announcements, emphasising the importance of vaccination and its minimal side effects, were published in the press ⁵⁴. Secondly, it engaged the *mukhtār* to inform the residents of their respective quarters about the campaign and to report the newborn and children who had not received vaccine to the municipality ⁵⁵. The spread of information through the *mukhtār* targeted the poorest stratum of society, who were either illiterate or simply did not read newspapers. This social group was probably the most adamant in avoiding vaccination, for fear of contracting the illness, which would then entail expensive medical treatment. The Beirut newspapers and private medical doctors also participated in this health awareness campaign. Lengthy articles were published on the pages of the Beirut press on vaccination, its history, development and benefits to the health of the individual and the community ⁵⁶. It is almost impossible to assess the success of this public awareness campaign, but it is apparent that a number of Beirut citizens remained recalcitrant, either refusing to have their children immunised, or not sending them for a booster vaccination when necessary.

Between 1893 and 1897 two waves of smallpox scourged Beirut, claiming the life of scores of children ⁵⁷. In order to improve this state of affairs the governor, upon the recommendation of the chief municipal doctor and the inspector of public health, ordered the *mufti*, who was in charge of the Islamic public schools, to vaccinate all the pupils of these schools, thus adding religious to medical persuasion ⁵⁸. By resorting to this method the municipal doctor bypassed the parents and targeted the children at their schools. As a result of this school vaccination campaign 440 pupils were vaccinated, as well as 312 children who presented themselves at the municipal pharmacy ⁵⁹. The mentioned schools were mainly attended by children from poor families, unable to afford an expensive modern private education.

The municipality tried to make vaccination even more accessible for its citizens. It increased its staff of doctors and vaccination technicians, and also raised the number of vaccination dispensaries to six, located in different parts of the city ⁶⁰. In other words, attempts were made to save the effort and time of the parents. The Municipality also requested the help of Beirut doctors who were not on its payroll. We know that at least one physician, *Salim Jalakh* ⁶¹, answered the call of duty, publishing an announcement that he was willing to vaccinate free of charge any child



Gerard Institute,
Sidon, H. H. Jessup,
1910, *Fifty-Three
Years in Syria*,
London & Edinburgh.

coming to his clinic or private house in the area of *Mar Marun* ⁶². In the year 1895, 21,333 children were vaccinated in the province of Beirut alone ⁶³. According to a newspaper article, which cited the report of the chief municipal doctor, 1060 vaccinations and booster vaccinations were administered by the municipal doctors from December 1905 until March 1906 ⁶⁴.

It seems that the various measures taken to convince the Beirutis to have their children vaccinated bore fruit and were partially successful. In 1900 very few mortalities due to smallpox were reported, and a single death incident caused by smallpox was considered to be worth reporting in a consular correspondence ⁶⁵. In 1903 Fayyad, a Beirut doctor, wrote a long article which was published in the newspaper *al-Mahabbah*, in which he tried to convince the remaining few Beirutis who had refused to be vaccinated or doubted its effects to have themselves vaccinated, and above all their children. He tried to convince the Beirut public that the smallpox vaccine was effective and without any negative side effects ⁶⁶.

In 1904 two new detailed regulations and instructions concerning mandatory smallpox vaccination, consisting of 28 and 18 articles respectively, were promulgated in Istanbul ⁶⁷. The purpose of these new ordinances was to remind the Ottoman subjects about their right to free vaccination and their obligation to submit to mandatory immunisation. They also defined the crucial role that municipal councils were expected to play in the fight against smallpox. The Beirut press published an Arabic translation of the Ottoman regulations and instructions without any further comment, as if it were a matter of course in the case of Beirut ⁶⁸. It is worth mentioning here, the fact that the central authorities in Istanbul needed to promulgate new vaccination regulations and instructions, strongly indicate that vaccination against smallpox was not yet equally successful throughout the Ottoman territories. But, in Beirut, although it took a long time to convince the Beirutis of the advantages of vaccination, by 1905 almost all the inhabitants were vaccinated. In 1905, at a medical congress in Scotland, Johanna Wortabet, a professor of medicine at the Syrian Protestant College, assured his colleagues that in a few years' time smallpox in Beirut and its surroundings would be a thing of the past, due to the determined efforts of local health authorities to vaccinate the citizens ⁶⁹.

Conclusion:

An Italian medical doctor introduced the new method of smallpox vaccination based on cowpox material to Beirut. Protestant missionaries adopted this novel relatively straightforward technique for the purpose of propagating their religious ideas. Local churches reacted swiftly in order to defend their coreligionists from exposure to the missionaries' beliefs and their said knowledge of preventive medicine. Yet, the ravages of smallpox could be effectively checked, if and only if, the vaccination was universally accepted. Neither a Jesuit medical "Phoenix" nor a Protestant physician "Messiah" were capable of spreading immunisation against smallpox—by means of vaccination—throughout the different layers and religious groups of their host society. The protestant missionaries did not wait for a properly trained physician to join their mission, but hastily resorted to amateur preventive medical practice. Deeply convinced that their medical knowledge was superior and irresistible, they expected spiritual wonders to materialise at the hands of missionary physicians.

The central authorities in Istanbul sanctioned obligatory vaccination against smallpox as early as 1846, however, the implementation took a very long time. The success of the vaccination campaign depended on the cooperation of first, the local authorities as represented by municipalities, second the press as an organ to instruct the public and finally the public in general. In the case of Beirut there exists ample evidence that vaccination against the dreaded smallpox was taken earnestly by the municipal council, and that efforts were exerted to insure the materialization of general immunization, i.e. spreading the vaccine universally among the city dwellers. The smallpox vaccination campaigns of the municipality were conducted with a clear-cut definition of rights and obligations. The city dwellers were obliged to have their children vaccinated. They were, however, entitled to receive the safe vaccine free of charge. If they failed to comply with the new regulation, they were fined and blamed of threatening the health of the entire society.

By the end of the nineteenth century the missionaries were less successful in their preventive medical activities than the municipal council of Beirut. The service offered by the missionaries was a charitable one, which could not be forced upon anyone. In contrast, with the municipal vaccination campaigns, the protection of children against smallpox ceased to be a private matter. It became an issue of public interest, authorized by the state.



The Prince of Wales
visit to the East:
Arrival of his Royal
Highness at Beyrouth,
*The Illustrated London
News*, 1862, June 14;
private collection
Nadim Shehadi.

NOTES

1 The cowpox method of vaccination was discovered and directly applied by the British Doctor Edward Jenner in the closing years of the 18th century. In 1798 Jenner published the results of his experiments in cowpox vaccination in a book entitled *An Inquiry into the Causes and Effects of the Variolae Vaccinae*. For more on Jenner and his career see: Roy Porter, *The Greatest Benefit to Mankind, a Medical History of Humanity from Antiquity to the Present* (Lonon, 1997), pp. 276-277.

2 Henri Guys, *Beyrouth et le Liban. Relation d'un séjour de plusieurs années dans ce pays* (Paris, 1850; reprint Beirut, 1985), vol. 1, p. 187.

3 Ibid., p. 187 and *Salname-i vilayet-i Suriye* (1286/1869), p. 73; *Salname-i vilayet-i Suriye* (1288/1871), p. 67 and *Salname-i vilayet-i Suriye* (1289/1872), p. 89.

4 Similarly, in 1803, the consul of the British Levant Company James Barker introduced the smallpox vaccine based on cowpox material into Aleppo. Between 1803 and 1806 he appointed two Italian physicians to administer the Jennerian method of vaccination on the children of those with whom he socialised, or as his son puts it "persons immediately around him". Edward B. Barker, ed., *Syria and Egypt under the Last Five Sultans of Turkey* (London, 1876; reprint New York, 1973), vol. 1, pp. 89-90. David Shavit, *The United States in the Middle East* (New York, 1988), p. 37. Bird did, however, attend medical lectures in New York as did William Goodell before their arrival in the Levant. Report of the American Board of Commissioners for Foreign Missions at Thirteenth Annual Meeting in 1822 (Boston: Samuel T. Armstrong, 1822), p.84.

5 Kamal Salibi and Yusuf K. Khoury, eds., *The Missionary Herald*. Reports from Ottoman Syria 1819-1870 (Amman, 1995), vol. 1, p. 236.

6 Edward B. Barker, ed., *Syria and Egypt*, pp. 89-91.

7 Sami Kuri, ed., *Une histoire du Liban à travers les archives des jésuites* (Beirut, 1985), p. 544.

8 For more information on Samuel Hahnemann and his novel school of homeopathic medicine see: Roy Porter, *The Greatest Benefit*, pp. 390-391.

9 Sami Kuri, ed., *Une histoire du Liban*, p. 81.

10 Ibid., pp. 62; 63; 66; 80-81;113; 147; 331; 347; 351-352; 374; 379-380, and 401-402 and vol. 2, pp. 16 and 23.

11 Ibid., pp. 351-352.

12 Ibid., p. 62.

13 Ibid., pp. 80-81.

14 Kamal Salibi, *Reports from Ottoman Syria*, vol. 2, p. 62.

15 Ibid., vol. 2, p. 312.

16 Cornelius van Dyck, "On the Present Conditions of the Medical Profession in Syria", reprinted in Ghada Yusuf Khoury, *The Founding Fathers of the American University of Beirut* (Beirut, 1992), p. 219.

17 Kamal Salibi, *Reports from Ottoman Syria*, vol. 2, p. 62.

18 Ibid., p. 63.

19 Henri Guys, *Beyrouth et le Liban*, vol. 1, p. 187.

20 John Bowring, *Reports on the Commercial Statistics of Syria* (London, 1840), p. 5.

21 Johanna Wortabet, "al-'Awbi'a wa al-'amr_d_ al-gh_liba f_ Suriy_". In: al-Muqtat_af, 30 (1905), p. 282.

22 Cornelius van Dyck, "On the Present Conditions of the Medical Profession in Syria", p. 221.

23 Johanna Wortabet, "al-'Awbi'a wa al-'amr_d_ al-gh_liba f_ Suriy_". p. 282. For the practice of violiation in Egypt see: Laverne J. Kuhnke, *Lives at Risk*. Public

Health in Nineteenth-Century Egypt (Berkeley, 1990), pp. 112-113.

25 Kamal Salibi, *Reports from Ottoman Syria*, vol. 3, p. 347.

26 Cornelius van Dyck, "On the Present Conditions of the Medical Profession in Syria", p. 221.

27 Tibawi, American Interests in Syria 1800-1901 (Oxford: Clarendon Press, 1966), 84.

28 Cornelius van Dyck, "On the Present Conditions of the Medical Profession in Syria", p. 219.

29 Johanna Wortabet, "al-'Awbi'a wa al-'amr_d_ al-gh_liba f_ Suriy_". p. 282.

30 Süheyl Ünver, *Türkiyede çiçek a_ısı ve tarihi* (Istanbul, 1948), p. 143.

31 Ibid., pp. 10 and 144.

32 Dr. Sigmund Spitzer, the private physician of Sultan Abdülmecid, gave the following detailed description of this vaccination campaign in his memoirs: "Am 7. Mai 1845, an einem schönen Frühlingsmorgen, setzte sich unsere Karawane in Bewegung. Zwei Regimenten Lanciers, die den Zug eröffneten und schlossen, mehrere Musikbanden und das aus beinahe fünfhundert Personen bestehende Gefolge des Sultans defilierten vor dem Kriegsminister, der den Zug in Rotten teilte, und jeder bedeutenderen Person militärische Begleitung mitgab. Mir wurden sechs Pferde zugewiesen, ein Leutnant und zwei Lanciers zu meiner Verfügung gestellt. Lustig flogen wir im scharfen Trabe dahin und langten nach drei Stunden auf dem Landgut Reschid Paschas an, wo gefrühstückt werden sollte. In einem lieblichen Wäldchen waren die Zelte des Sultans aufgeschlagen. Das Landvolk war in grosser Menge herbeigeströmt, und man fand Gelegenheit, die Impfung vorzunehmen. Jetzt und an jedem andern folgenden Tage, an jedem Rastort, wurden die Kinder in Gegenwart des Sultans geimpft und beschenkt; der Sultan fand daran ein eigenes Vergnügen, das Leben seiner Unterthanen durch eine so unschuldige Manipulation

vor der gefährlichen Krankheit zu sichern, von der er selbst unverwüstliche Spuren trägt." Cited in: Bernhard Stern, *Medizin, Aberglaube und Geschlechtsleben in der Turkei* (Berlin, 1903), pp. 252-252.

33 Esin Kahya, "Tanzimatta Eski ve Yeni Tıp". In: 150. Yilinda Tanzimat (Ankara, 1992), p. 299.

34 Rıza Tahsin, *Mir'ât-ı Mekteb-i Tıbbiye* (Istanbul , 1328 Maliyye/ 1913) as edited and reprinted in Latin script by, Aykut Kazancıgil, ed., *Tıp Fakültesi Tarihçesi* (Mir'ât-ı Mekteb-i Tıbbiye) (Istanbul, 1991), pp. 22-23.

35 Süheyl Ünver, *Türkiyede çiçek a_ısı ve tarihi*, pp. 145-146.

36 H_ad_qat al-akhb_r, 20 January 1858.

37 For further information on the early municipal activities in Beirut see: Malek Sharif, *The Ottoman Municipal Laws and the municipality of Beirut* (1860-1908), Ph.D. thesis, Freie Universität Berlin, 2004; especially Chapter One: The municipalities in Syria prior to the introduction of the municipal law, pp. 32-51.

38 Thamar_t al-fun_n, 24 January 1878.

39 For the role and significance of municipal doctors in 19th Century Beirut see: Sharif, *The Ottoman Municipal Laws*, especially Chapter Seven: The municipality and public health, pp.188-216.

40 Lis_n al-h__l, 27 May 1878.

41 Dr. John Wortabat, a professor of medicine at the Syrian Protestant College, noticed that parents were especially reluctant to vaccinate their children during an outbreak of a smallpox epidemic. He attributed this attitude to the fact that some children must have been vaccinated against smallpox when they were already incubating the disease. Therefore, post vaccination fevers were dismissed as minor side effects. In some cases children died when the full symptoms of smallpox appeared on their bodies. A fact which made parents believe that the death of their children was

caused by the vaccine. Wortabet, "al-'Awbi'a wa al-'amr_d_ al-gh_liba f_ Suriy_". p. 284.

42 Thamar_t al-fun_n, 27 January 1879; Lis_n al-h__l, 30 January 1879.

43 Thamar_t al-fun_n, 3 February 1890; al-Bash_r, 29 January 1890.

44 Some examples of local newspapers containing advertisements for the smallpox municipal vaccination campaign: Al-Bash_r, 10 March 1887, 29 January 1890, 26 April 1893, 29 July 1893, and 8 May 1895; Lis_n al-h__l, 30 January 1879; Thamrat al-fun_n, 24 January 1878, 27 January 1879, 8 May 1882, 29 December 1884, 1 March 1887, 17 June 1889, 3 January 1897, 12 February 1900, 28 January 1901, 4 January 1904, 25 December 1905, and 7 May 1906; Al-Mis_b_h_, 13 May 1893, 23 September 1893, 25 January 1897, and 8 January 1898.

45 As for smallpox vaccination in Istanbul Justin McCarthy is of the opinion that vaccination was not conducted on regular basis. He writes the following: "The incidents of recorded death from smallpox (in Istanbul) seems especially high when one considers how long effective vaccination had been theoretically available." See Justin McCarthy, *The Arab World, Turkey and the Balkans 1878-1914* (Boston, 1982), p. 107.

46 Thamar_t al-fun_n, 8 May 1882, 29 December 1884, 1 March 1887, 17 June 1889, and 18 May 1896.

47 Suriye, 14 November 1301 maliye (26 November 1885); Suriye, 26 November 1303 maliye (9 December 1887); Suriya, 17 December 1303 maliye (29 December 1887).

48 Suriye, 14 November 1301 maliye (26 November 1885).

49 Niqula Nimr, "al-Judar_ f_ Bayr_t". In: al-Muqtat_af, 5 (1885), pp. 117-118.

50 Kamal Salibi, *Reports from Ottoman Syria*, vol. 4, p. 361.

51 Donald R. Hopkins, *Princes and Peasants; Smallpox in History* (Chicago,1983), p. 83.

52 See footnote 40 above.

53 Thamar_t al-fun_n, 1 March 1887; al-Mis_b_h_, 5 March 1887.

54 Thamar_t al-fun_n, 1 March 1887; al-Mis_b_h_, 5 March 1887.

55 Al-Mis_b_h_, 25 January 1897; Thamar_t al-fun_n, 12 February 1900, and 28 January 1901.

56 Al-Bash_r, 24 March 1887; Al-Mis_b_h_, 5 March 1887: two articles by Dr. Habib al-Khoury Ghanim. Al-Bash_r, 12 May 1887: an article in French by Dr. De Brun. Al-Bash_r, 19 May 1887: an article in Arabic by the editor of the newspaper. Al-Bash_r, 18 January 1893: the editorial of the newspaper was dedicated to the promotion of vaccination as a prophylactic method against smallpox. Al-Bash_r, 26 April 1893: a detailed article by Dr. Amin al-Jumayyil, including information about antiseptics as well. Al-Bash_r, 26 July 1893: an article criticising the wrong treatment of smallpox by some of the Beirutis. It also urges them to visit a physician for advice. Al-Mis_b_h_, 22 April 1893: an article by Dr. Salim Jalakh. Al-Mis_b_h_, 25 January 1897: an article by Dr. Khair al-Din Bey, the inspector of public health in Beirut. Al-Mah_abba,. 13 December 1903: a lengthy article by Dr. Fayyad.

57 Al-Mis_b_h_, 22 April 1893, 23 September 1893, and 25 January 1897; al-Bashir, 18 January 1897, and 29 July 1893; Henry Harris Jessup, *Fifty-Three years in Syria* (New York, 1910), vol. 2, p. 634.

58 Al-Mis_b_h_, 25 January 1897.

59 Al-Mis_b_h_, 8 January 1898.

60 Thamar_t al-fun_n, 3 January 1898.

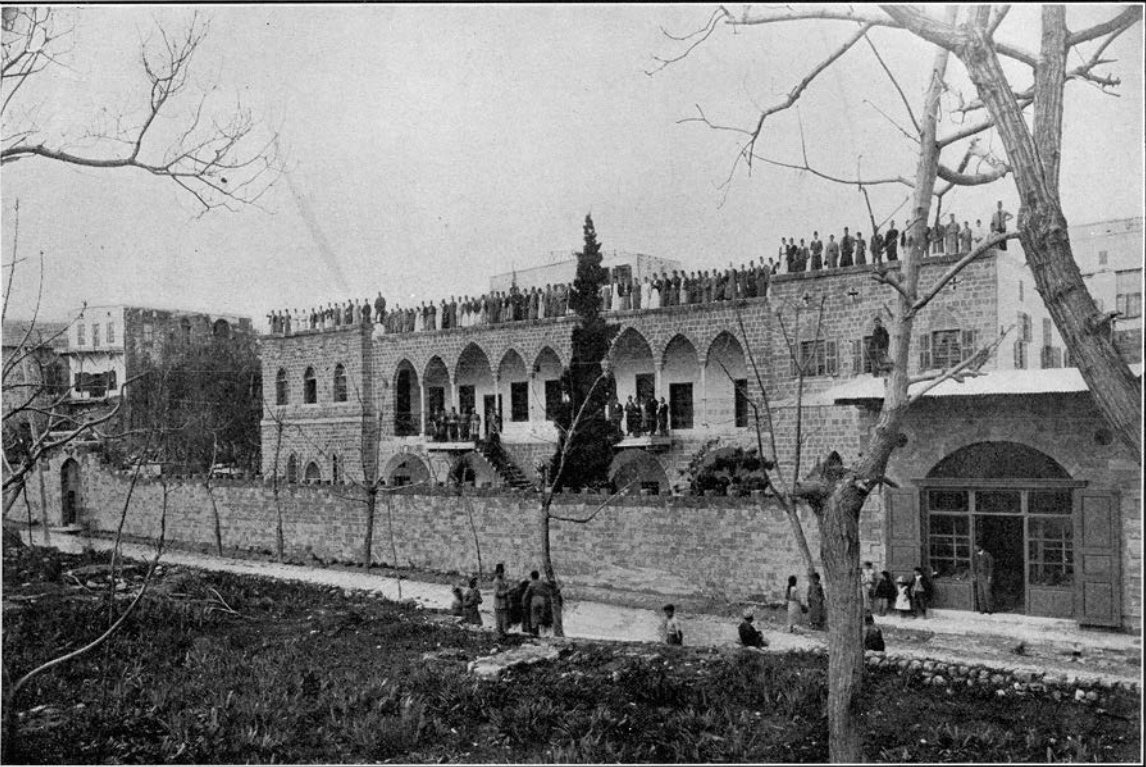
61 Salim Jalakh was one of the earliest graduates of the medical school at the Syrian Protestant College (SPC), an insti-

tution established by the American protestant missionaries in 1866. He volunteered to assist the municipality in its vaccination efforts, rather than the American missionaries, who were at that time running the German hospital, Sankt Johann Krankenhaus in Ras Beirut. For a list of the graduates of the SPC's medical college, see Shafiq Jiha, *Darwin wa azmat 1882 bi al-d_i'ra*

(Istanbul, 1331/1913), vol. 4, pp. 619-626.

68 Tamar_t al-fun_n, 23 May 1904.

69 Johanna Wortabet, “al-'Awbi'a wa al-'amr_d al-gh_liba f_ Suriy_”,



al-tibbiyya (Beirut, 1991), pp. 209-211.

62 Al-Mis_b_h_, 13 May 1893.

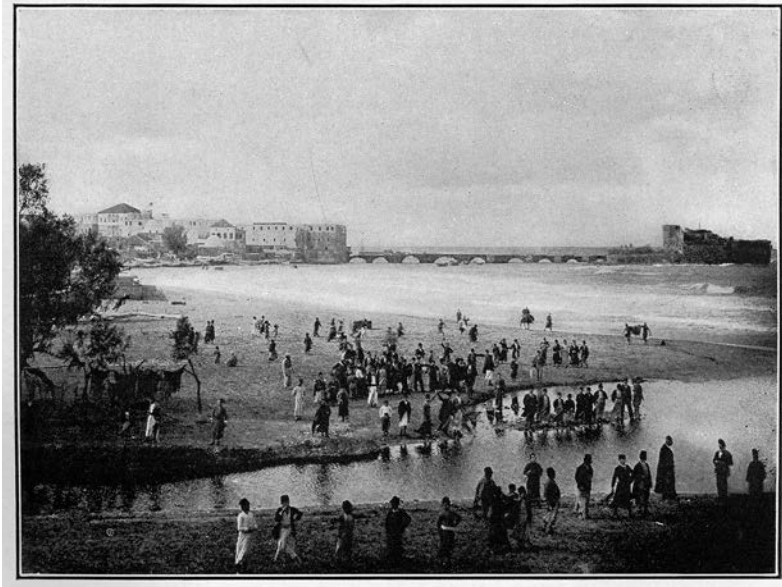
63 Al-Bash_r, 8 May 1895.

64 Tamar_t al-fun_n, 7 May 1906.

65 The Danish National Archives, Copenhagen, 8uik Rig-sarkivet, Kons. Arkiver Beirut, F 685, box 5. 3 August 1900, 1900/No.834-71/ F.

66 Al-Mah_abba, 13 December 1903.

67 For the complete Ottoman text of the vaccination regulations of 1904 “A_1 nizāmnāmesi” and “A_1 talimātnāmesi” see: Osman Nuri, *Mecelle-i Umur-ı Belediye*



Sidon, front view of the Gerard Institute and pupils having an outing by the sea. (The Sea Castle of Sidon is at the right); H. H. Jessup, 1910, *Fifty-Three Years in Syria*, London & Edinburgh.