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A BULLETIN DEVOTED TO THE HISTORY OF MEDICINE AND SCIENCE

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KOROTH Vol. 9, No. 9-10, 1989

S.Y. AGNON'S T'MOL SHILSHOM AS A MEDICAL RECORD

by

AVRAHAM HOLTZ* and TOBY BERGER HOLTZ

S.Y. Agnon's novel T'mol Shilshom¹ belongs, in our opinion, to the genre of documentary fiction. That is, although the plot in clearly fictional, the narrative is replete with details which are based primarily on historical data. The statements made by various characters in the book are frequently direct quotations from

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1 Kol Sippurav shel Shmuel Yosef Agnon, vol. 9, T'mol Shilshom, Third ed., Tel Aviv: Schocken Publishing House, 1952. All page citations in the text of this article refer to this edition. There is no English translation of this novel. All translations in this article are our own. A German translation, entitled Gestern, Vorgestern: Roman, Übersetzt von Karl Steinschneider, Frankfurt: S. Fischer, 1969; and a French translation, Le chien Balak | Hier et Avant-hier: Roman, traduit par Ruth Leblanc et André Zaoui, Paris: A. Michel, 1971, are available. English summaries of each chapter and a literary analysis of the novel are presented in Arnold Band, Nostalgia and Nightmare: A Study in the Fiction of S.Y. Agnon, Berkeley and Los Angeles: University of California Press, 1968, pp. 414-447. For a medical bibliography from the period of T'mol Shilshom, see Aron Sandler, Medizinische Bibliographie für Syrien, Palästina und Cypern, n.p., n.d. For a general review of medical conditions at this time, see Elias Auerbach, "Soziales und Hygienisches aus Palästina", Soziale Hygiene und Praktische Medizin, vol. 20, no. 9 (25 April 1912), pp. 163-168; and P. Mühlens, Bericht über eine Malariaexpedition nach Jerusalem. Jena: Gustav Fischer, 1913.

contemporary journals, memoirs, and other primary historical texts. Similarly, background information provided to the reader by the narrator and by the author is almost always drawn from verifiable sources. Among the numerous factual elements, there are many references to medicine and hygiene in Eretz Yisrael at the beginning of the twentieth century.

The plot of T'mol Shilshom concerns the life of Yitzhaq Kumer, a young man in his early twenties from Buczacz, Agnon's hometown in Eastern Galicia. He escapes conscription into the Austro-Hungarian army by leaving Europe to become a halutz in Eretz Yisrael. The book begins with a description of his travels through Eastern Europe on his way to Trieste, and his sea voyage to Jaffa.2 He arrives in Jaffa in the late spring of 1908, and after a brief stay there, he attempts in vain to find work as a halutz in Petah Tiqva and in other recently established Jewish agricultural settlements. Out of desperation, he becomes a house painter, visits Jerusalem, returns to Jaffa, and finally settles in Jerusalem, where he marries a young woman from Mea She'arim. Soon after his marriage, he is bitten by a rabid dog, Balaq, on whose body he had earlier painted the words "keley meshuga" (crazy dog), and he succumbs to rabies in the late fall or early winter of 1911. Throughout the novel, exact dates are rarely cited. Instead, the reader is expected to infer the dates from references to historical events and personalities. Thus, for example, at the end of the novel, one of the physicians who examines Yitzhaq Kumer after he has been bitten by the rabid dog recommends that he be sent to the Pasteur Institute in Egypt (in Cairo). The implication is that the Pasteur anti-rabies treatment was not available in Jerusalem at that time (1911). That was, in fact, the case, since the Pasteur Institute in Jerusalem

2 A study by Avraham Holtz of the literary sources and geographical and historical materials incorporated in "Rayshit Devarim" ("Prologue"), the introductory section of T'mol Shilshom, which describes Kumer's European journey, will appear in a forthcoming volume to be published by Bar Ilan University. ממכון הפסמורי לרפוי הנשוכים בירושלם לאגדת כל הרופאים וחוקרי המכע העכרים לעניני הבריאות בא"

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או מחלת החיות השומות

"ר אריה בהם



ירושלם חרע"ד-ברשום א. מ. לונין

הפצית דייר מזיא

Titel Page of Arieh Beham's Booklet on Rabies.

From Collection of Dr. Aron M. Masie (Courtesy Mr. M. Isaacson)

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was established only in 1913, whereas the Institute in Cairo began its activities in 1906.3

Rabies

As might be anticipated from this brief synopsis of the plot, rabies is the illness that is described in greatest detail in T'mol

Contemporary references to anti-rabies treatment in the newly-founded Pasteur Institute in Jerusalem include Mühlens, pp. 29 and 44; Paul Schneller, Die Krankheiten Palästinas und ihre Bekämpfungsmöglichkeiten, Hannover: Orientbuchhandlung Heinz Lafaire, 1923, p. 81; and G. Stuart and S.S. Krikorian, "Anti-rabic Procedure in Palestine and Syria with Special Reference to Decentralization of Treatment", Annals of Tropical Medicine and Parasitology, 19, 4 (December 16, 1925), p. 391. A summary of the history of the Pasteur Institute in Jerusalem appears in Samuel S. Kottek, "The Pasteur Institute's Centenary: Notes on the Pasteur Institute in Palestine", Koroth 9, 7/8 (Autumn 1988/5749), pp. 205-219 and 557*-564*. A much earlier (1916?) account of the activities of the Pasteur Institute in Jerusalem is found in the rare four-page flyer "Vom Pasteur-Institut in Jerusalem" (Central Zionist Archives, Book no. 225). According to the Report of the [Egyptian] Department of Public Health for 1905, Cairo: National Printing Department, 1906, p. 42, in 1906 the Egyptian governmental Anti-rabic Institute took over the work of the Italian Benevolent Society, through which the Pasteur treatment had previously been privately dispensed. For further details about the founding of the Cairo Anti-rabic Institute, see also Raoul de Chamberet, Enquête sur la condition du Fellah Égyptien, Dijon: Imprimerie Darantière, 1909, p. 182; and Andrew Balfour, War Against Tropical Diseases, London: Wellcome Bureau of Scientific Research, 1920, pp. 174-177.

The Egyptian Public Health officials directly attributed the radical decline in the number of patients receiving the Pasteur treatment at the Cairo Anti-rabic Institute to the establishment of the Jerusalem Pasteur Institute and the availability of treatment there. See the Report of the [Egyptian] Department of Public Health for 1913, Cairo: National Printing Department, 1914, p. 77. More statistics on the number of rabies cases from Eretz Yisrael (Syria and Palestine) treated at the Cairo Anti-rabic Institute are given in the Reports for the years 1909 (p. 73), 1910 (p. 73), 1911 (p. 121), and 1912 (p. 64).

Shilshom. The extensive, near-clinical descriptions of the progress of Yitzhaq Kumer's illness, from the initial infection from the dog bite to his death, occupy many pages in the latter part of the book. We have found that the details given concerning the symptoms and the course of the disease are directly based on Dr. Aryeh Beham's pamphlet Al HaKalevet (on Rabies).⁴ and also on the popular medical handbook, Refuat HaAm (Folk Remedies).⁵

Several aspects of the theme of the rabid dog and human rabies deserve special attention. The dog Balaq is never specifically identified as being rabid. Rather, Agnon (p. 583) uses the following Talmudic statement from Yoma 83b, which enumerates five distinguishing characteristics of a mad dog (kelev shoteh):

Our Rabbis taught: Five things were mentioned in connection with a mad dog. Its mouth is open, its saliva dripping, its ears flap, its

4 Al HaKalevet o Mahalat HaHayot HaShotot, (On Rabies, or the Illness of Mad Animals), Jerusalem: Luncz, 1914. We thank Mr. Meron Isaacson for permitting us to photograph the copy of the pamphlet that is in Dr. Masie's library.

It is of interest to note that the word kalevet as used to mean rabies was introduced by Dr. Masie. Dr. Shaul Tschernikovsky, the famous Hebrew poet-physician, relates that when Dr. Masie first came upon the idea of calling rabies kalevet, he was so excited that he walked for three days from Rishon LeTzion to Jerusalem to share his enthusiasm with his friends. See "LeZekher HaDoktor A. Masie", HaAretz, 14 December 1939, p. 3. See A. M. Masie, Dictionary of Medical and Allied Sciences, Jerusalem: 5694 (1934), p. 617.

Curiously, the word kalevet does not appear in T'mol Shilshom. 5 Translated into Hebrew by Menahem Mendel Leffin of Satanov, Lvov: n.p., 1851, Chapter 12, "Neshikhat Kelev Shoteh" (The Bite of a Mad Dog), paragraphs 188-201, pp. 29a-30b.

According to Klausner, this was a most successful medical hand-book. Klausner maintains that Leffin translated from a German version of Tissot's original French work, and the 1851 Lvov edition contains many additions written by Dr. M. Studensky. See Yosef Klausner, Historia shel HaSifrut Halvrit HaHadasha (History of Modern Hebrew Literature), Jerusalem: Ahiasaf, 1952, p. 225, n. 4; p. 227.

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tail is hanging between its thighs, it walks on the edge of the road. Some say, Also it barks without its voice being heard.

Without citing this reference, Agnon relies on the reader to recognize that this is the Talmudic description applied to Balaq.

The bystanders who see Balaq bite Yitzhaq Kumer pursue Balaq in an unsuccessful attempt to catch him, in order to use his liver as part of a popular treatment for rabies victims (p. 596). This primitive form of anti-toxin therapy is mentioned in the Mishna (Yoma 8:6), and also in other sources from antiquity.

After he is bitten by Balaq, Yitzhaq is visited by a folk healer (mumheh, "expert"), who prepares an ointment for the bite compounded of olive oil and salt, to remove the blood from the wound. The healer then prepares another salve from pigeon dung, mustard, yeast, nuts, salt, honey and onions (p. 596). This concoction for the bite of a rabid dog appears, to us, to be a quotation from the contemporary book Zikhron Ya'aqov Yosef by

- 6 From the Soncino translation of the Talmud, Yoma, p. 412. Agnon adds the detail "ve'einav tosesot dam" (and his eyes are bloodshot), which does not appear in the Talmud, and for which we have not found a source. Refuat Ha'Am states that the mad dog's "eyes change" (ve'einav mishtanim), p. 29a.
 - It is interesting to compare the description of Aetius, a sixth century (C.E.) Mesopotamian physician, who "has left an accurate description of the dog disease. The symptoms were manifested by the dogs becoming mute, then delirious and incapable of recognizing their master and surroundings. They refuse food, are thirsty but do not drink, and usually pant. They breathe with difficulty, keep the mouth open with the tongue hanging out, and discharge abundance of frothy saliva. Their ears and tail hang down, they move slowly and are dull and sleepy. When they run it is faster than usual, and in an irregular and uncommon manner". Cited from George M. Baer, The Natural History of Rabies, vol. 1, New York: Academic Press, 1975, p. 4.
- On the use of the rabid dog's liver as a remedy for rabies, see Julius Preuss, Biblical and Talmudic Medicine, translated and edited by Fred Rosner, New York: Hebrew Publishing Company, 1978, p. 196; and Baer, p. 4.

Yehoshua Yonatan Rubenstein of Batei Ungarn in Jerusalem. This book is endorsed with the *haskama* (endorsement) of the famous Rabbi Yosef Hayim Sonnenfeld.⁸ However, Agnon, for some unknown reason, omits basil (rudeh) and theriaca ⁹ from his list of ingredients of the salve, although they appear in Rubenstein's list.

As Yitzhaq Kumer's condition worsens, his neighbors are frightened and imagine that he crawls on all fours, barks like a dog, and attempts to bite everyone who approaches him (p. 605). The narrator gives little credence to this allegation, but, in fact, those afflicted with rabies do make "barking" noises. 10 Similarly, the hydrophobic hallucinations of the rabies victim, specifically that the victim "sees" puppies in his drinking water and is therefore afraid to drink, lest he be bitten again, are mentioned by Agnon (p. 605). This phenomenon is described by Ramban (Nachmanides) in his commentary on Numbers 21:9, 11 The real reason for the hydrophobia (fear of water) in the rabies victim is the paralysis of the swallowing muscles. This is mentioned by Agnon (p. 600).

- 8 Jerusalem: n.p., 5690 (1930), p. 90a.
- 9. Theriaca was the "miracle drug" of antiquity. It is mentioned in the Talmud (Shabbat 109b and Nedarim 41b). It was in widespread medical use until the eighteenth century. On the history of theriaca and various recipes for its preparation, see Gilbert Watson, Theriac and Mithridatium: A Study in Therapeutics, London: Wellcome Historical Medical Library, 1966, pp. 5-7.
- 10 On the rabies victim's tendency to bite others, see Refuat HaAm, p. 29b, paragraph 191. On "barking noises", see Baer, p. 5, who cites references to this phenomenon in the works of the medieval Arab physicians Rhazes and Avicenna, and also a modern case. A physiological explanation is provided by Macdonald, who states, "His [the rabies victim's] cries are distorted through inflammation of the vocal cords so that his voice sounds more like a dog's bark". David W. Macdonald, Rabies and Wildlife, A Biologist's Perspective, Oxford; Oxford University Press, 1980, p. 11.
- 11 We are grateful to Professor Samuel Kottek for calling our attention to this source.

Concerning the prevalence of rabies in Eretz Yisrael, Agnon mentions (p. 474) that in one year, there were seventy cases of rabies. This seems to refer to the statistic cited in Luncz's almanac for 1907, summarizing the events of 1906, the year in which he reports that seventy rabies victims were sent to the Pasteur Institutes in Cairo and in Constantinople for treatment.¹²

Meningitis

As reported by Luncz, in the winter of 1908–1909, the city of Jerusalem experienced a most severe epidemic of meningitis. ¹³ Dr. Aharon Meir Masie (1858–1930), a popular European-trained Jewish physician, delivered a lecture on the subject of this disease on January 15, 1910. This lecture was subsequently published in pamphlet form, under the title Mahalat HaShivta o Daleqet Q'rum HaMoah (Meningitis Cerebro-Spinalis Epidemica) [The Illness Shivta or Inflammation of the Membrane of the Brain, Its Characteristics. Causes, Contagion, Cure, Prevention, and Eradication]. ¹⁴

The Jewish newspapers of the period reported the severity of this epidemic and vividly described its communal impact.¹⁵ The

12 A. M. Luncz, Luah Eretz Yisrael LiShnat 5667 (1907), vol. 12, p. 37. Similar statistics are given in the Reports of the [Egyptian] Public Health Department for 1910 (p. 73) and 1911 (p. 121).

13 A.M. Luncz, Luah Eretz Yisrael LiShnat 5670 (1910), vol. 15, pp. 159-160, reporting on 5669 (winter of 1908-1909). Luncz's wife Devora died during this epidemic. The first mention of meningitis as a new disease in Eretz Yisrael was in 1900. See A.M. Luncz, Luah Eretz Yisrael LiShnat 5661 (1901), vol. 6, p. 164.

14 Jerusalem: Luncz Press, 1910. The word Shivta appears in the Talmud (Yoma 77b and Hullin 107b), where it refers to an evil spirit that afflicts those who eat without washing their hands. It appears that Dr. Masie applied the word shivta to meningitis. See A.M. Masie, Dictionary, p. 457.

15 See Hapoel HaTzair, vol. 2, no. 10 (Adar 5669), p. 13, "MiYerushalaim Kotvim Lanu"; and vol. 2, no. 11 (Adar 5669), p. 12, "Mikhtavim MiYerushalaim", by Ezrah. This epidemic is also reported in Die Welt, vol. 13, no. 18 (30 April 1909), p. 389, where mention is made of eighty cases, mostly among children under sixteen years



Titel Page of Dr. A. Masie's Booklet on Meningitis (Jerusalem, 1910)

journalists also informed their readers of hygiene and public health measures to be followed, so as to control the spread of the disease. Agnon (pp. 557-559) used Dr. Masie's pamphlet and these newspaper accounts, particularly those of *HaPoel HaTzair*, as the source of the descriptions of the meningitis epidemic, and the widespread controversies surrounding its causes and control.

In his account of the meningitis epidemic in T'mol Shilshom, Agnon claims that the disease is spread primarily among the Ashkenazic community in Jerusalem because of unsanitary conditions in the miqvaot (ritual baths) and also because of the custom of wearing fur-trimmed hats (shtreimel) on Sabbaths, holidays, and special occasions. These hats, it is claimed, carry the germs from the patient's home to the synagogue and back again. At first glance, this passage may appear to be the narrator's mocking critique of local Ashkenazic religious practices. However, after reading Dr. Masie's pamphlet, it becomes clear that Dr. Masie himself presents these customs as scientifically plausible causes for the spread of the epidemic. Consequently, we suggest that Agnon is simply quoting a contemporary recognized medical authority on this subject, and is not making any pejorative or satirical comment on this issue.

Paralysis

Reb Feisch, the father of Yitzhaq Kumer's fiancée, Shifra, is a belligerent opponent of the new Yishuv. He opposes his daughter's

of age, with fifteen to twenty deaths; and in "Die Genickstarre in Jerusalem", *Palästina*, vol. 6. no. 6 (1909), p. 149. A description of meningitis and its prevention and treatment appears in Dr. Hillel Yofe's booklet, *Shemirat HaBeriut BeEretz Yisrael* [Hygiene in Eretz Yisrael], translated from the manuscript by M. Krishevsky, Jaffa: Etin, 5673 (1913), pp. 30-31. This popular booklet in vocalized Hebrew was intended for the general reader.

Masie, pp. 29-30. In the booklet, Dr. Masie maintains that the Sefardim have cleaner *miqvaot* (ritual baths), with a Turkish-type steam bath attached, and they do not wear the fur-trimmed *shtreimel*, but rather a cloth head covering, that can be readily laundered.

relationship with this modern Zionist halutz. On one of his night-time rounds to paste up placards announcing a new herem (ban of excommunication) against one of the modern, Hebrew-speaking schools in Jerusalem, Reb Feisch is frightened when the dog Balaq barks at him, and he falls victim to a stroke. Agnon calls this illness shittuq (paralysis, p. 534), and its course is described intermittently as the narrative unfolds. The literary function of Reb Feisch's stroke seems to be a ploy to render him ineffectual in opposing the match between his daughter Shifra and Yitzhaq Kumer.

The description of Reb Feisch's stroke and its effects on his body is taken from Chapter 9 of the Hebrew version of Tissot's work, Refuat HaAm.¹⁷ The chapter is entitled "Holi HaShittuq HaNiqra Paraliz" (The Malady of Stroke, Called Paralysis). The author mentions two types of strokes, one particularly affecting those of a belligerent nature, and this is the type of stroke that afflicts Reb Feisch. Agnon applies Tissot's descriptive details in his narrative, e.g., his body is like a stone, he is senseless, his mind seems detached from the world, his eyes are vacant with loose fatty bags beneath them, his face is swollen and red.

Malaria

Malaria (qaddahat) was one of the most prevalent diseases in Eretz Yisrael during the period described in T'mol Shilshom.¹⁸

- 17 Pp. 23b-24b. See in T'mol Shilshom pp. 313, 318-320, 419, 534, 545, 555
- 18 For a discussion of malaria as a public health problem in Eretz Yisrael, see Yitzhaq Gregory D'Arbella, "Al Devar Matzav HaBeriut BaMoshavot Asher BeSevivot Yafo" (On the State of Health in the Settlements in the Vicinity of Jaffa), in A.M. Luncz, ed., Yerushalaim, 3 (5649/1889), pp. 90-91; and also W. Brünn, "Die Sanierung Palästinas", Die Welt, vol. 17, no. 50 (12 December 1913), pp. 1687-1688.

 A less technical presentation appears in Yofe's Shemirat, pp. 1-3 and also in his memoirs. See Hillel Yofe, Dor Ma'apilim: Zikhronot, Mikhtavim, VeYoman (The Daring Generation: Memoirs, Letters, and a Diary), Tel Aviv: Dvir. 5699 (1939), pp. 14-15, 80-81, 111. A

Indeed, Yitzhaq Kumer himself falls victim to this illness soon after his arrival in Eretz Yisrael (p. 61), and due to lack of employment, he is impoverished to the point where he cannot even afford to buy quinine to protect himself from malaria.

Hadera, a new agricultural settlement founded in December 1890 in a particularly swampy area ¹⁹ in the northern Sharon plain, was severely afflicted with malaria in one of its most fatal forms, blackwater fever. According to Dr. Hillel Yofe, (1864–1936),²⁰ this disease was popularly called *qaddahat tzehuba*, al-

detailed scientific account of all aspects of the malaria problem is provided by Mühlens.

- The early pioneers, in their search for well-watered agricultural land, were often misled into purchasing swampy, malaria-infested plots. See Israel J. Kligler, The Epidemiology and Control of Malaria in Palestine, Chicago: University of Chicago Press, 1930, pp. vii-viii; and also Palestine Department of Public Health, A Review of the Control of Malaria in Palestine (1918-1941), Jerusalem: Government Printing Press, 1942, p. 16. An interesting anecdote concerning the purchase of land for Hadera is related by Ever HaDani. When Yehoshua Hankin brought the prospective buyers to the site, they asked him about the ponds in the area. He replied that they could be potentially used for fish breeding, as in Russia. Some Bedouins who lived nearby inquired of Hankin, "Have you brought these Europeans to settle here? This is the Gateway to Malaria!" When the prospective buyers asked Hankin what the Bedouins had said, he replied, "The Bedouins praised the property and called it the Gateway to Gold." Ever HaDani, Hadera: 5651-5711 (1891-1951), Shishim Shnot Qoroteha (Sixty Years of Its History), Ramat Gan: Massada, 1951, p. 13.
- 20 This disease is not to be confused with yellow fever, which is almost unknown in Eretz Yisrael. Dr. Hillel Yofe, the physician of Zikhron Ya'akov, visited the settlers in Hadera regularly. In his popular and scientific works, he identifies qaddahat tzehuba with blackwater fever. See his booklet Shemirat, pp. 28-29; his memoirs, Dor Ma'apilim, pp. 304-305; also his HaShemira MiPnei HaQaddahat (Prevention of Malaria), translated from manuscript by Y. D. Qarlin, n.p., n.d., pp. 8-13. His scientific works on this subject dating from this period include "A propos de la Fièvre Hémoglobinurique en Palestine," Bulletin de la Société de Pathologie Exotique, 7 (10 June)

though it was really blackwater fever, now usually referred to as quaddahat shehorat hasheten, a translation of its English and its German name (Schwarzwasserfieber).

Agnon, in his brief historical account of the settlement of Hadera (pp. 389–390), praises the heroism and the steadfastness of the founding pioneers. Although many of the settlers and members of their families died of blackwater fever, the settlement was not abandoned. At one point, the children were evacuated to Zikhron Ya'akov, and the Baron Edmond de Rothschild provided funds to plant eucalyptus trees and to drain the swamps. In Hadera alone, 49,000 eucalyptus trees were planted, according to Agnon.²¹ As a result of these measures, Hadera became a

- 1914), pp. 512-514; "Traitement des Cachexies Paludéennes," Bulletin de la Société de Pathologie Exotique, 7 (11 November 1914), pp. 678-685; "Projet de Campagne Anti-paludéenne en Palestine," pointaken from Revue Internationale d'Hygiène Publique, vol. 2, no. 5 (September—October 1921), and "De la Fièvre Hémoglobinurique en Palestine," Comptes Rendus, part 4, Congrès International de Médecine Tropicale et d'Hygiène, Cairo, 1928, pp. 1067-1075.

 Motes on Some Tropical Diseases of Palestine," Journal of Hygiene, 13 (1913/1914), pp. 49-57.
- 21. By 1908, over 400,000 trees had been planted in Hadera, according to Palästina, vol. 5, no. 3 (1908), "Die Kolonie Chedera", pp. 52-53; also Die Welt, vol. 13, no. 20 (14 May 1909), p. 431; and the report "HaMoshava Hadera", in HaMeir, vol. 1, no. 1 (Adar 1912), pp. 24-31; and vol. 1, no. 2 (Nisan 1912), pp. 66-72. See also Aron Sandler, "Moskito-Brigaden", Palästina, vol. 5, no. 5/6 (1908), pp. 131, 82-85, and the sequel in Palästina, vol. 5, no. 7 (1908), p. 139.
- Ever HaDani, in Hadera, p. 157, mentions the celebrations in Hadera when the connection between the Anopheles mosquitoes and malaria was discovered. Similarly, Ronald Ross, the doctor who proved that malaria can only be transmitted by the bite of an Anopheles mosquito who has previously bitten a malaria victim, celebrated "Mosquito Day" on August 20th every year, in honor of his discovery in 1897. See Ronald Ross, Memoirs, London: John Murray, 1923, pp. 223; and H. Harold Scott, A History of Tropical Medicine, 2 yols, Baltimore: Williams and Wilkins Company, 1939, vol. 1, pp. 182-186; vol. 2, pp. 1086-1090.

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healthier place to live, and the settlers could hope for a beautiful and more productive town. This brief account in *T'mol Shilshom* reflects an historical reality, which is attested to again and again in the medical, scientific, and journalistic literature of the period.²²

Dengue Fever

Among the illnesses afflicting the city of Jerusalem in the summertime, Agnon (p. 299) mentions abu rakab, which is identified by the contemporary European-trained doctors as dengue fever.²⁸ This disease is now known to be mosquito-borne and is caused by a virus, interestingly one closely related to the yellow fever virus.²⁴ Agnon uses the Arabic term for this illness, for there is no Hebrew name for it. Dr. Masie, in his dictionary, calls dengue

The medical literature of the period on the problem of malaria in Eretz Yisrael includes John Cropper, "The Geographical Distribution of Anopheles and Malarial Fever in Upper Palestine", Journal of Hygiene, 2 (1902), pp. 47-57, and "The Malarial Fevers of Jerusalem and their Prevention", by the same author, Journal of Hygiene, 5 (1905), pp. 460-466. These articles are reviewed by A. Sandler, "Die Malaria in Jerusalem", Palästina, vol. 3 (March 1906), pp. 77-83. See also Dr. Pohovsky, "HaMalaria BeEretz Yisrael VeHaMilhama Ba," (Malaria in Eretz Yisrael and the War Against It), HaMeir, vol. 1, no. 5 (Tammuz 1912), pp. 210-218; and W. Brünn and L. Goldberg, "Die Malaria Jerusalems und ihre Bekämpfung," Zeitschrift für Hygiene und Infektionskrankheiten, 75 (1913), pp. 209-235.

For popular reports of malaria in Eretz Yisrael, see for example Altneuland, vol. 1, no. 6 (1904), p. 190, and "Zur Bekämpfung der Malaria," Der Israelit (Mainz), vol. 49, no. 42 (22 October 1908), p. 5.

- 23 The following sources identify abu rakab as dengue fever: H.M. Mikhlin, BeRe'i HaDorot: Osef Ma'amarim, Zikhronoth, UReshimot al Yerushalaim (In the Light of the Past: A Collection of Essays, Memoirs, and Notes about Jerusalem), Tel Aviv: Leinman, 5710 (1950), pp. 31 and 39; and Schneller, p. 59.
- 24 On the virus that causes dengue, see Susumu Hotta, Dengue and Related Tropical Viruses, Kobe, Japan: Yukosha Printing House 1978, p. 1 and passim.

fever ahilu, based on the Talmud (Gittin 70a),25 but the disease is not clearly identifiable from this source, and the name is not commonly used.

Dengue fever is characterized by muscular pain and high fever, and it is usually not fatal. When it first appeared in Eretz Yisrael, dengue fever was often confused with influenza.²⁶ There was an epidemic of dengue fever in Eretz Yisrael in 1909 which was reported in the medical literature and elsewhere.²⁷

Trachoma

11.12

On of the characteristic diseases in Eretz Yisrael and the Levant during this period, the time of the Second Aliyah, was trachoma.²⁸

- 25 In this source, ahilu is identified as chills and fever. "What is ahilu?

 A burning in the bones." Dr. Masie, in his Dictionary, calls dengue ganderet or ahilu. See A. M. Masie, Dictionary, p. 212.
- 26 On the confusion between dengue fever and influenza, see Mikhlin, p. 54; Yofe, Shemirat, pp. 29-30; Itta Yellin, LeTze'etza'ai: Zikhronot (To My Descendants: Memoirs), Jerusalem: HaMa'arav, 1938, vol. 2, p. 61; and Ḥaim Hamburger, Shelosha Olamot (Three Worlds), vol. 3 Olami Sheli (My Own World), Jerusalem: Defuss "Har Tzion", 5708 (1948), p. 48.
- The following are examples of some of the medical literature of the period on the subject of dengue fever in Eretz Yisrael: Masterman, "Notes on Some Tropical Diseases of Palestine," pp. 58-62; Mühlens, pp. 24-25; Nagib Ardati, "Observation on Dengué," Medical Record, 78 (September 3, 1910), pp. 408-409; and T. Canaan, "Beobachtungen bei einer Denguefieber Epidemie in Jerusalem," Archiv für Schiffs-und Tropenhygiene, vol. 17, no. 1 (1913), pp. 20-25.
- 28 On the prevalence of trachoma and the public health problem it posed during the time of the Second Aliya, see D'Arbella, pp. 91-92; Brünn, pp. 1688-1690; Yofe, Shemirat, p. 22-24; Mühlens, pp. 27; A. Sandler, "Das Trachom in Palästina", Altneuland, vol. 1, no. 6 (1904), pp. 161-170; L. Sofer, "Die Bekämpfung des Trachoms", Palästina, vol. 4, no. 3/4 (March/April 1907), pp. 92-96; and the historically significant Din VeHeshbon shel Ve'idat HaGarienet HaRishona shel HaRofeim Halvrim BeEretz Yisrael (Bericht über die Erste Trachomkonferenz der jüdischen Ärzte Palästinas), Jerusalem: Verlag des "Jewish Health Bureau", 1915; and the bibliographical review by Aryeh Feigenbaum, 50 Years of Ophthalmology in Palestine, Tel Aviv: "HaRefuah", 1946.

In Hebrew, the disease is called gar'enet, because of the granular (Hebrew, gar'in) lesions, which can result in scarring, impairment of vision, and ultimately in blindness.²⁹ This illness is an infection of the eye, caused by a variety of pathogens. The disease is highly contagious, and the patient often reinfects himself. Many visitors to Eretz Yisrael comment on the eyes of the natives, which they describe as being runny and full of pus, and often swarming with flies.³⁰ This is similar to Agnon's description of the "green discharges from the eyes of the Arabs" (p. 56).

The disease was further spread by the unsanitary conditions prevalent at the time.³¹ Agnon states that the city of Tel Aviv was originally intended as a summer refuge for the inhabitants of Jaffa, so that they might escape from the contagion of trachoma (p. 438). It is also claimed that trachoma was introduced to Eretz Yisrael by visiting Arab workers from Egypt who came to build the railroad.

Physicians and Medical Personnel

Several medical practitioners appear in T'mol Shilshom. Some

- 29 Dr. Masie, in his *Dictionary*, uses gar'enet to refer to granular and follicular trachoma, p. 728.
- 30 The appearance of the eyes of the trachoma patient is described in E.W.G. Masterman, Hygiene and Disease in Palestine in Modern and in Biblical Times, London: Palestine Exploration Fund, n.d., pp. 20-22.
- 31 The relationship between unsanitary conditions and the prevalence of trachoma is discussed in Theodor Germann, "Augenärztliche Beobachtungen in Syrien und Palästina: speciell über das Trachom in diesen Ländern", Centralblatt für Praktische Augenheilkunde, vol. 20, supplement (1896), pp. 386-413; Elias Auerbach, "Zur Epidemiologie und Bekämpfung des Trachoms in Palästina, mit besonderer Berücksichtigung der jüdischen Bevölkerung", Deutsche Medizinische Wochenschrift, vol. 1913, part 2, no. 37 (11 September 1913), pp. 1794-1796; and Aryeh Feigenbaum, Die ansteckenden Augenkrankheiten Palästinas und ihre Bekämpfung, Jerusalem: Jewish Health Bureau, 1913.

are mentioned by name, while others appear under pseudonyms.³² Among those named are Dr. Aharon Meir Masie (p. 506), already noted above, the author of the first modern Hebrew medical dictionary, who practiced medicine in Rishon LeZion and later in Jerusalem.

Another physician who appears in *T'mol Shilshom* is Dr. Haim Asser Hissin (1865–1932, p. 388), but he does not function as a doctor in the book. He appears only as a Zionist administrator, and only later served primarily as a physician.

(p. 155 and passim), whom we believe to be Dr. Menahem Mark Stein (1855–1916). He was a member of the Bilu pioneers, who came to Eretz Yisrael in 1881. He served as a doctor in Jaffa, in Rishon LeZion, and in Hebron. He was one of the founders of the Shaar Tzion Hospital in Jaffa, which he headed. These and other biographical details fit those ascribed by Agnon to Dr. Piqhin. This could be Dr. Grussendorf, director of the German Kaiserwerth Diakonissen Hospital. He is listed in Baedeker (1906 and 1912) 33 as a European doctor who treats tourists. The "Greek doctor" (p. 314) could be Dr. Euclides, according to Baedeker (1906), or Dr. Spyridon, the director of the Greek Hospital, or Dr. Nikola (Baedeker, 1912).34

The German doctor required that his prescriptions be filled by

- 32. Lists of Jewish physicians in Eretz Yisrael can be found in Felix Theilhaber, "Von den Aerzten", Palästina, vol. 6, no. 2 (1909), pp. 40-43; also in Baedeker (1906), p. 20, and Baedeker (1912), p. 20; and in Mühlens, pp. 29-30. For a popular modern history of physicians and pharmacists in Eretz Yisrael, see David Margalit, Physicians Forerunners of Modern Israel, Tel Aviv: Publication of the Jerusalem Academy of Medicine, 1973.
- 33 Baedeker (1906), p. 20, and Baedeker (1912), p. 20. See also Mühlens, p. 29. In *Palästina*, vol. 6, no. 4 (1909), p. 102, a letter from Dr. Grussendorf appears, informing the public that they can be treated free of charge at the Diakonissen hospital.
- 34 Baedeker (1906), p. 20; Baedeker (1912), p. 20; and Mühlens, p. 30.

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the German pharmacist (Salomon), while the Greek physician sent his patients to the Greek pharmacist Gaïtanopoulos, whose shop was located outside the Jaffa Gate. 35 Both of these physicians attended Reb Feisch and prescribed medications for him after he suffered his stroke, but neither they nor their medicines were of any use to Reb Feisch. An anonymous pharmacist in Mea She'arim is also mentioned, but we have not yet succeeded in identifying him by name.

According to Agnon (p. 155), the Jewish hospitals did not have women as nurses, because there were none available. However, the Shaar Tzion Hospital in Jaffa had a Jewish nurse from Hamburg, Germany, Fräulein Tempelmann, who had been sent to Jaffa by the Women's Auxiliary of the German Zionist Federation. In Jaffa, she served as the head nurse of the Shaar Tzion Hospital, and she was also in charge of the "Polyklinik" (outpatient service) of the hospital. Agnon mentions Marat (Fräulein) Tempelmann by name and quotes her as saying that care of the sick requires the tender hands of women, who are by nature gentle and caring (p. 155).

The Shaar Tzion Hospital in Jaffa was founded in 1892. It moved to a building near the Mediterranean Sea formerly owned by the Austrian Consul, Jacob Pascal (1832–1905). The Hospital had twenty beds, but this was never sufficient to provide adequate medical facilities for Jaffa and all the new colonies in the surrounding areas. Mr. Shimon Roqah (1863–1922), a prominent Zionist businessman and a resident of Jaffa, was the administrator (gabbai) of the hospital (p. 155). The hospital had recurring financial problems and was forced to close on numerous occasions, due to lack of funds.³⁷

35 Baedeker (1906), p. 20; and Baedeker (1912), p. 20.

37 The account of the founding of the Shaar Tzion Hospital appears in Tziyyun LeNishmat Shimon Rogah z"l: Toladot VeHa'arakhot (To

The "mission hospital" (p. 492) is mentioned as a landmark in Jerusalem. This was the new Anglican Hospital, built by the London Jews' Society in 1897, outside the walls of the Old City. 38 Jews were, understandably, reluctant to be treated or admitted there, as borne out by Agnon's reference (p. 492) to the young girl who must, of necessity, be treated in this hospital, despite fears that she might be converted by the missionaries.

The "Sympathetic Nose"

One of Yitzhaq Kumer's friends in Jaffa, Yohanan Leichtfuss, tells Yitzhaq the following very curious story that he has read in an "American journal" (magazine):

A certain duke started a war. A swordsman struck him, and took off his nose. The duke was left without a nose. He said to his doctor, "Take as much gold as you want from my treasury, and make me a nose". The doctor went out and found a poor man. He said to him, "Give me your nose for the duke and I will give you so and so many gold coins." The poor man thought it over. He was so poor that he didn't have money for a pinch of snuff tobacco, and now the duke is ready to give him a lot of money for his nose. He agreed to give him his nose. The doctor took out his scalpel, took off his nose, and attached it to the duke. And because the poor man loved the duke, the nose clung [to the duke] and became one flesh. A while later, the poor man died. The nose began to rot until it became detached and fell off. Why? Because the poor man's love for the duke stopped when the poor man died. As long as he was alive, and his "sympathy" for the duke was alive, the nose was also alive. When he died, the "sympathy" stopped, and the nose fell off. - pp. 425-426.

As bizarre as this story may seem, the idea of a nose transplant is not unknown in the early medical literature. The Hindus

Die Welt, vol. 13, no. 4 (22 January 1909), p. 78; and Palästina, vol.
 5, no. 11/12 (1908), p. 221. These newspaper articles authenticate Agnon's reference to Marat (Fräulein) Tempelmann.

[:] di the Memory of Shimon Roqah of Blessed Memory: Biography and Evaluation), Jaffa: Defuss M. Shoham (Steinfeld), 5683 (1923), pp. 5-9.

³⁸ For a detailed history of the Anglican Hospital, see Norbert Schwake, Die Entwicklung des Krankenhauswesens der Stadt Jerusalem vom Beginn des 19. bis zum Beginn des 20. Jahrhunderts, 2 vols., Herzogenrath: Verlag Murken-Altrogge, 1983, vol. 1, pp. 108-191.

were able to use skin grafts to repair noses lost through accidents or mutilation, and it is possible that this type of early plastic surgery was brought by Arab physicians to Europe, where it was practiced by the famous itinerant surgeons of the Norsini and Brancas families. 39 The most famous of the early plastic surgeons was Gaspare Tagliacozzi (1546–1599), who was a professor at the renowned faculty of medicine at the University of Bologna, and chief surgeon to the Grand Dukes of Tuscany and Mantua. Tagliacozzi was the author of *De Curtorum Chirurgia*, on the subject of skin grafts and rhinoplasty, or nose repair. It is highly improbable that Tagliacozzi himself ever performed such a transplant operation.

The story of the "sympathetic nose" has a long history. It appears in many seventeenth century iatrochemical works, including those of Jean Baptiste van Helmont of Brussels, who first wrote about this theme in 1621; and Robert Fludd, who mentions this phenomenon. Towards the end of the seventeenth century, the story was viewed with skepticism by scientific writers, and it later became a subject for satire, as in Samuel Butler's *Hudibras* (1650), and also in Voltaire, and in Addison and Steele's *The Tatler* (Thursday, December 7, 1710).⁴⁰

A much earlier parallel story in a Jewish source is now known. In an unpublished manuscript of Rabbi Judah the Pious (Yehuda HeḤasid, c. 1150–1217) from the Bodleian Library, ⁴¹ a brief version of the story of the "sympathetic nose" appears as an example of the wonders of nature, as follows:

Fielding H. Garrison, An Introduction to the History of Medicine, Fourth Ed., Philadelphia: W.B. Saunders Company, 1929,pp. 72, 226.

40 A survey of the tale of the "sympathetic nose" appears in Martha Teach Gnudi and Jerome Pierce Webster, The Life and Times of Gaspare Tagliacozzi, Surgeon of Bologna, 1545-1599, New York: Herbert Reichner, 1950, pp. 285-302. Another brief summary of the literature on this subject is found in Maxwell Maltz, Evolution of Plastic Surgery, New York: Froben Press, 1946, pp. 167-168.

41 Neubauer no. 1208, pp. 1-18. We wish to thank Professor Israel Ta-Shema, Director of the Institute of Microfilmed Hebrew Manus-

[The story about] a person whose nose was cut off and another person's nose was grafted on to him. When that man died, this nose fell off, because it sensed [Hebrew, "smelled"] the death of its body.

This thirteenth century account may be the earliest version of this story. It certainly predates Tagliacozzi.

We have not yet found the "American journal" which Agnon mentions as his source of this story.

Certain medical details mentioned in T'mol Shilshom require further research. For example, Yohanan Leichtfuss, Yitzhaq Kumer's friend in Jaffa, was once bitten on his foot by a snake. The doctors despaired of a cure, and recommended amputation of the leg. After Leichtfuss, a bohemian artist, prayed in the synagogue, and fell prostrate to the ground and cried out his soul, an elderly Arab passerby applied halvah to the wound to draw out the venom. Leichtfuss was cured, and from that time on, he was called by the nickname "HaRegel HaMetuqa" ("Sweet Foot", p. 72). The documentation for this story and cure has thus far eluded us. Similarly, we have not yet identified the doctor who, according to Agnon (p. 237), advised against planting trees in the newly-established neighborhood of Zikhron Moshe in Jerusalem, because "trees need water, and water brings mosquitoes, and mosquitoes bring malaria." In spite of this warning, the residents planted trees to beautify their neighborhood.

The medical realia which are collected here further demonstrate the historical authenticity of *T'mol Shilshom* as a documentary novel. An annotated and illustrated edition of the entire novel, based upon the application of similar research methods and principles, is now in preparation.⁴²

russ cripts at the Jewish National and University Library in Jerusalem, for informing us of this new source, and for granting us permission publish it.

⁴² This book will be Volume 2 in a series entitled *Marot Umeqorot* (Scenes and Sources). Volume 1 in the series is an annotated and was illustrated edition of S.Y. Agnon's *Hakhnasat Kallah* (Endowering the Bride), and is now in press with Schocken House, Tel Aviv.