



Echoes of Disaster



By John Loofbourow, MD

First person accounts from 1833 to 1850 describe the epidemics and floods in the Sacramento Valley.

THE HISTORY OF THE early Sacramento Valley is richly preserved in our own Museum of Medical History, ably and devotedly organized by Dr. Bob LaPerriere. The California State History Library on 9th and N Streets is a striking modern structure containing a full array of books, pamphlets, hand-written journals, and documents — and a dedicated staff of librarians. The CSUS and UC Davis libraries are valuable resources. Irma West and Eleanor Rodgerson are the living members of a long line of physicians who have written the histories of Sacramento medicine for more than 150 years.

There is so much material it is impossible to reference it all in this issue. From that extensive accumulation, I have selected several first person accounts of the medical situation in the Sacramento Valley at mid-19th century.

Malaria John

Malaria was first introduced to the Columbia River area in Oregon in 1830-31.¹ Among those who fell ill there was John Work, an Irish trapper working for the Hudson's Bay Company. From August 1832 to October 1833, Work leads a one-year-long trapping expedition from Oregon to the Bonaventura (Sacramento) River. The party of 100, 28 men, 12 women, 44 children(!), and 6 Indians, requires organization and discipline. Some, like Work, carry malaria. They enter California near Goose Lake, and travel to the east of Mount Shasta, down the McCloud and Fall Rivers, Hat and Cow Creeks. In his detailed journal, Work notes the weather, and each day's events.

November 27, 1832. *"...killed 5 elk, 3 deer & 1 antelope. The animals are all very lean."*

November 30, 1832. *"...There are a great many Indians all the way along the river. They seem to live principally on acorns..."* Work describes many prosperous Indian villages. There is constant contact with them with few problems. The expedition halts for winter, east of the Sacramento River, near Marysville.

January 21, 1833. *"I went to the Bute [Sutter Buttes] accompanied by Michell to take a view of the appearance of the country round about. We are nearly on an island as the Bute is surrounded nearly by water..."* They have frequent encounters with Indians, some hostile, most curious and friendly, with occasional theft and horse rustling. They shoot so much game that munitions run short. With spring, they travel to Sutter's Fort, but must continue to the Bay Area to resupply.

They explore, and find the Fort Ross and Monterey areas unpropitious for various reasons, and in August turn back to the east to the San Joaquin River going as far south as Fresno. The Indians there have had long experience with the missions, and are more deceptive and hostile though many state they are Christians; there are several bloody encounters.

At last Work and his 100 begin the long journey back to Fort Vancouver. From Sacramento northward they encounter the very malaria they had brought with them in January, but are unaware why they are becoming so ill, or what is happening to the Indians.

August 6, 1833. *"...the villages which were so populous and swarming with inhabitants...seem now almost deserted & have a desolate appearance. The few wretched Indians who remain...are lying apparently scarcely able to move, it is not starvation as they have considerable quantities of their winter stock of acorns still remaining. We are unable to learn of the malady or its cause. I have given the people orders to avoid approaching their villages lest it be infectious."*

August 12, 1833. *"...As if the heat was not sufficient we are like to be devoured with swarms of Muscatoes..."* There are many new cases of malaria in the Work party.

August 13, 1833. *"...it appears to be a kind of fever, the patients are attacked with pains in all their bones & a violent headache..."*

Aug 14, 1833. *"...The heat is as great as ever...not a breath of wind... The natives along here (are) found in ones or twos in little thickets...the bodies of others partly devoured by wolves."*

August 20, 1833. *"...Our sick people get no better, nine more have fallen ill within these two days...attacked with trembling fits."*

August 24, 1833. *"...Some of those who have been ill the longest are a little better...72 (have been affected) in all..."* When the trappers leave the valley for higher elevations, they begin to improve, and the great majority survives. Yet Work remains sickly the rest of his life, though he settles in Oregon and raises his family.

The following is from a letter by his physician just before Work's death in September 1861. *"His complaint is relapses of fever and ague with which he was first attacked at Fort Vancouver 27 years ago."*

Dysentery: the "disease of California"

In 1850, conditions in Sacramento are exceptionally bad.^{2,3,4} It is a city chiefly consisting of 7000 transient men.

"...backyards of...restaurants, hotels, stables and markets diffused with...filth...piles of empty fish barrels, meat casks, salt and...spoiled meat and cheeses...vegetables...in the process of decomposition... (yet) deaths seldom (exceed)...twelve a week, ... the result of exposure, intemperance and over exertion."

Thousands of people live in tents, or makeshift shelters, and there is little provision for sewage. Water from the river, at first potable, is now suspect. J. B. D. Stillman writes of the summer of 1849 that 30,000 came overland, and 60,000 by sea. Dysentery is common in the San Francisco tent city, and in October 1849 he writes of the conditions of the 49ers near Deer Creek on the Sacramento: *"As we advanced the numbers of sick increased, and at every watering place were many unable to continue their journey..."*

Scurvy and malnutrition were common, but the focus of his publication is a lethal and prolonged gastroenteritis that *"degenerated so frequently into a chronic and fatal malady, that it has been properly regarded as the 'disease of California.'" He notes the breakdown of his own cases from December 25, 1849, to April 1, 1850: "... (among) 25 cases of chronic diarrhea, average time to death was 4 months... a slow wasting process. Almost all (ultimately) died... I have no doubt that the number of deaths from chronic diarrhea of the character described was greater than any other disease."*

The second half of his treatise reviews similar episodes around the world, and conjectures

about cause. In 1972, I was sent to Nepal to evaluate morbid conditions for *Peace Corps* volunteers, in whom the death rate was unacceptably high. I traveled as they did, on foot, from village to village. Every time *two* volunteers met, the first half hour of conversation consisted of minute descriptions of the color, frequency, quantity, and esthetic nature of their stool. Stillman's vivid descriptions of the course of illness, and the scatology that accompanied it, make it very likely that amebic dysentery was a key contributor to the chronic and usually fatal dysentery he describes.

Cholera disembarks

October 7, 1850. The steamer *California*^{5,6,7} arrives in San Francisco from Panama, with 22 cholera cases aboard. No quarantine is imposed.

October 18, 1850. The first case arrives in Sacramento. One victim dies at the wharf.

October 31, 1850. The epidemic spreads rapidly and most residents flee the city. The disease begins to fade on November 6, after over 3,000 deaths. Ironically, at this very time half a world away, John Snow has convinced London authorities to shut down the now famous Broad Street Pump, because of his conclusions as to fecal-oral spread of cholera.

November 12, 1850. Dr. J. F. Morse, represents the Medico-Chirurgical Association; he asks the City Council to appoint a City Board of Health and is turned down. But efforts continue; at last, in 1862, Sacramento becomes the second city in the nation, after Boston, to establish a City Board of Health. In time, water quality is improved but occasional outbreaks occur. Sewage is treated chemically, but more expensive and effective safe sewage disposal, or water quality assurance is deferred.

Six years later the Office of the California State Board of Health at the southeast corner of K and 2nd Streets in Sacramento states on page 2 of its "Cholera Tract": *"It is vain to talk about more effectual sewerage...in the face of an impending cholera epidemic...(it is) too late to use chemicals in the emergency."*

One floor above the flood

January 10, 1850. Dr. Morse writes in his *First History of Sacramento City*, from his partner Stillman's notes. They are at their hospital, at Third and K Streets, Sacramento. This structure is the first solid wooden structure in the city built and leased as a hospital, though earlier tent-like facilities existed.⁸ It is about 35 by 55 feet, has eight muslin-lined private wards, a ward in the garret, an apothecary, and cooking/dining facilities. It cost \$15,000 to build and \$1,500 monthly to rent — a bargain in this gold rush city of transient men, few women or children, and an abysmal lack of sanitation or civic order. At Seventh and P Streets, the water level rises more than 9 feet in 24 hours.

January 11, 1850. Stillman writes: *"We (are) all, about forty of us, in the upper story of our hospital. Dr. Morse and myself writing, Higgins reading Demartime's 'Raphael,' the cook preparing something for breakfast, two or three others, quartered with us, talking in an undertone; some asleep, and a few patients muttering in delirium. A lone woman, sick and destitute, is curtained off in the corner of the room. Some are lying on the floor; others, dead, are sewed up in blankets and sunk in the water, in a room on the first floor. Dr. Morse pours some brandy in his ink, to give spirit to his letter; I pour from another bottle...containing laudanum, to quiet the apprehensions that my (letter) may awaken; then we all laugh and go on as before."*

January 12, 1850: *"The water is still rising — at the rate of 6 inches an hour. Tents, boxes, barrels, horses, mules and cattle are sweeping by... (with) a few two story houses. There is no first floor in the city (un-flooded)."*

January 13, 1850. *"We found it necessary to bury the dead. I made arrangements with a whale boat...for \$40 and deposited the bodies in it.... We fished them up with a hook and line.... Mulford,... Cameron the druggist, and myself, with two sailors owning the boat, started for land. Dug a grave at the foot of an oak,...in a South-easterly direction."*

Here, in Sacramento, where the modern history of California began, it is archived, and continues to accumulate day by day.

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1. Work, John. Fur Brigade to the Bonaventura. California State Historical Society, 1945
2. Professor Ken Owens, CSUS, Lecture at the SSVMS Medical Museum, April 16, 2003
3. Stillman, J. B. D. "Observations on the Medical Topography and Diseases of the Sacramento Valley, California, During the years 1849-50." The New York Journal of Medicine for Nov 1851
4. Jones, J. Roy, MD Memories, Men, and Medicine. Society for Medical Improvement, 1950 (now SSVMS).
5. Ibid
6. Morse, J. F.; First History of Sacramento City, 1853. Sacramento Book Collector's club edition, 1945
7. West, Irma; Cholera and Other Plagues of the Gold Rush (Golden Notes) Sacramento County Historical Society Vol 46 #1, 2000.
8. Rodgerson, Eleanor; Adobe, Brick & Steel... A history of hospitals and shelters for the sick in Sacramento and El Dorado Counties Sacramento-El Dorado Medical Society Historical Committee, 1993.

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