

'One day they simply weren't there.' How researchers reconstructed Anne Frank's last months

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Today would have been the 91st birthday of Anne Frank, the girl who left behind a tattered, hidden diary, now known as the gem-like book that's treasured by many millions. But the exact date of her death is unknown, and a matter of past dispute.

With her family and a few others, Anne hid from the Nazis in Amsterdam for over two years in the secret rooms of a building that today serves as her memorial. However, the Franks were discovered on on August 4, 1944, and that September, Anne, her mother, her father and her sister Margot were sent via train to Auschwitz-Birkenau, the infamous death and enslaved labor camp. Two months later, in early November, Anne and Margot were transported to the Bergen-Belsen concentration camp.

Edith, their mother, remained at Auschwitz-Birkenau and died of starvation in January of 1945. Otto Frank, her father, somehow survived Auschwitz and returned to Amsterdam after the war. Otto's secretary, Miep Gies, found Anne's diary after the Nazis raided the house and interned the Frank family. Gies saved the diary, along with Anne's surviving notebooks and papers.

Though her writings survived, Anne died of typhus fever at the age of 15. For decades, historians listed the date of her death as occurring on March 31, 1945 — a mere two weeks before the Bergen-Belsen camp was liberated by the American forces. The Dutch Red Cross interviewed many survivors and estimated the date of her death as occurring between March 1 and 31, 1945. Later, the Dutch authorities chose the official date of March 27 for Margot, who also perished from the disease, and March 31 for Anne. At the time, Dutch probate laws required Otto to list an "officially established date" in order to draw up a certificate of inheritance with respect to his "missing" daughters.

Given the proximity of time between Anne's reputed death on March 31 and the liberation of the camp on April 15, this chronology added an extra dimension of sadness to her tragic story.

But research conducted in 2015 by historians at the Anne Frank House Museum in Amsterdam determined that **the two Frank sisters probably died weeks earlier** — in February of 1945. Their research was based on eyewitness testimonies of survivors who knew the Franks and saw Anne and Margot in the camp, the Bergen-Belsen Memorial archives, the Dutch Red Cross and the International Tracing Service.

The Guardian **interviewed one of the historical researchers**, Erika Prins, in 2015: "When you say they died at the end of March, it gives you a feeling that they died just before liberation. So maybe if they'd lived two more weeks ...' Prins said, her voice trailing off. 'Well, that's not true anymore."

Typhus fever is caused by the microbe Rickettsia prowazekii. Long associated with filth, starvation and physical hardship, typhus has been known by many names across time. Frequent outbreaks among the incarcerated begat the term "jail fever"; among sailors on long, ocean voyages, it was called "ship fever"; in starving populations, "hunger fever"; and in the wake of war, "camp fever." The Nazis' anti-Semitic propaganda blamed the disease on the Jewish people they oppressed, imprisoned and killed.

Rickettsia are transferred to human beings via body lice. Such infestations often occur in extreme poverty and other dire living situations where there is a decided lack of sanitary facilities to wash one's body or clothing. Lice live in the seams of clothing worn by their human hosts. Cotton underwear is an especially favored site of louse settlement. Indeed, an old-fashioned means of preventing lice infestations was to wear silk underwear because the lice were thought to have a more difficult time latching onto that fabric.

Soon after taking up residence, these annoying creatures devote their existence to two pursuits — nourishing and reproducing themselves. It is not long before the mother louse begins to lay five or more eggs a day, which hatch in a week or so. Four to six times a day, the body louse ventures out from the stitched seams they call home to bite their host and consume their favorite meal, human blood. When the body

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louse, riddled with typhus germs, partakes of its entrée, rude houseguest that it invariably is, it leaves behind fecal material rich in Rickettsia. The human host experiences the louse bites as annoyingly itchy and, with each stroke of a fingernail, microscopic fragments of the Rickettsia-laden feces find their way into his or her bloodstream.

Within days of infection, the typhus victim experiences intense muscle pains, headaches, nausea, thirst and raging fevers from 104 to 106 degrees Fahrenheit. A mulberry-colored rash develops all over the body, which are actually the result of tiny skin hemorrhages or bruises under the skin. The typhus victim soon becomes delirious and dizzy from the intense fever. The violent battle between life and death usually takes two to three weeks. Before the advent of antibiotics, 20 percent or more died of typhus. In the Nazi concentration camps, without so much as adequate food or water, let alone medical care, it was far more fatal.

Bergen-Belsen was not an extermination center, but more than 35,000 people died of starvation, illnesses, and exhaustion between January and mid-April of 1945. Another 28,000 died in the weeks after the camp was liberated by the Allied Forces. The Bergen-Belsen camp was so filthy, that by January 1945 typhus fever was rampant.

Margot and Anne lived in a leaky tent with only a ditch for a latrine. Fresh water was scarce. Worse, the straw they used for bedding teemed with lice. One of Anne's former classmates, Nanette Blitz, reported seeing her behind a barbed wire fence in the camp sometime in early December, according to the Anne Frank House's researchers. Decades later, Nanette recalled with horror, "She was no more than a skeleton by then. She was wrapped in a blanket; she couldn't bear to wear her clothes anymore because they were crawling with lice." The last time Blitz saw Anne Frank was sometime in January 1945.

Another acquaintance, Martha van Collem, who attended the same synagogue as the Franks (the Jewish Reformed Congregation of Amsterdam), claimed to have thrown Anne a package over a barbed-wire fence in early February 1945. Margot was already too ill to come to the fence at that time. A friend of Margot's, Hanneli Goslar, recalled that her last contact with Anne was sometime in the first half of February. Other friends, too, remembered seeing her at this time as well, but not after, and that Anne was already exhibiting the signs of being ill with typhus fever. As another schoolmate, Rachel van Amerongen, recalled of the two Frank sisters, "One day they simply weren't there anymore."

Given **that timeline** and the natural history of typhus fever, the historians at the Anne Frank House concluded that the date of her death was sometime in early February.

This year, we remember Anne while facing an infectious foe of a very different type, COVID-19. She lived her life with bravery, wit, grace and wisdom in the face of impossible odds. The gift she left behind — a book borne of tragedy — reflects hope even in times of extreme adversity. It was, after all, Anne Frank who wrote on July 15, 1944, less than a month before she and her family were arrested by the Nazis:

"It's difficult in times like these: ideals, dreams and cherished hopes rise within us, only to be crushed by grim reality. It's a wonder I haven't abandoned all my ideals, they seem so absurd and impractical. Yet I cling to them because I still believe, in spite of everything, that people are truly good at heart."

By - Dr. Howard Markel

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