

Girls Who Grew Up to Change the



Maryam Mirzakhani



Mata Hari

A portrait of Maryam Mirzakhani, a mathematician, set against a dark background filled with various mathematical sketches and diagrams in white and yellow. The sketches include geometric shapes like a cube, a sphere, and a torus, as well as abstract patterns and formulas. The text "Maryam Mirzakhani" is written in a large, white, serif font, and "Mathematician" is written below it in a smaller, white, serif font. The portrait itself is a stylized, colorful painting of her face, with her hair in shades of blue and green, and her skin in warm tones of orange and yellow. She is looking slightly to the right with a thoughtful expression.

***“The beauty of Mathematics only shows itself
to more patient followers.”***

$$PI = \sqrt{2}/2$$
$$\frac{1}{2} \sqrt{2}$$

2.



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$\geq |A| -$

$\sqrt{1-p}$

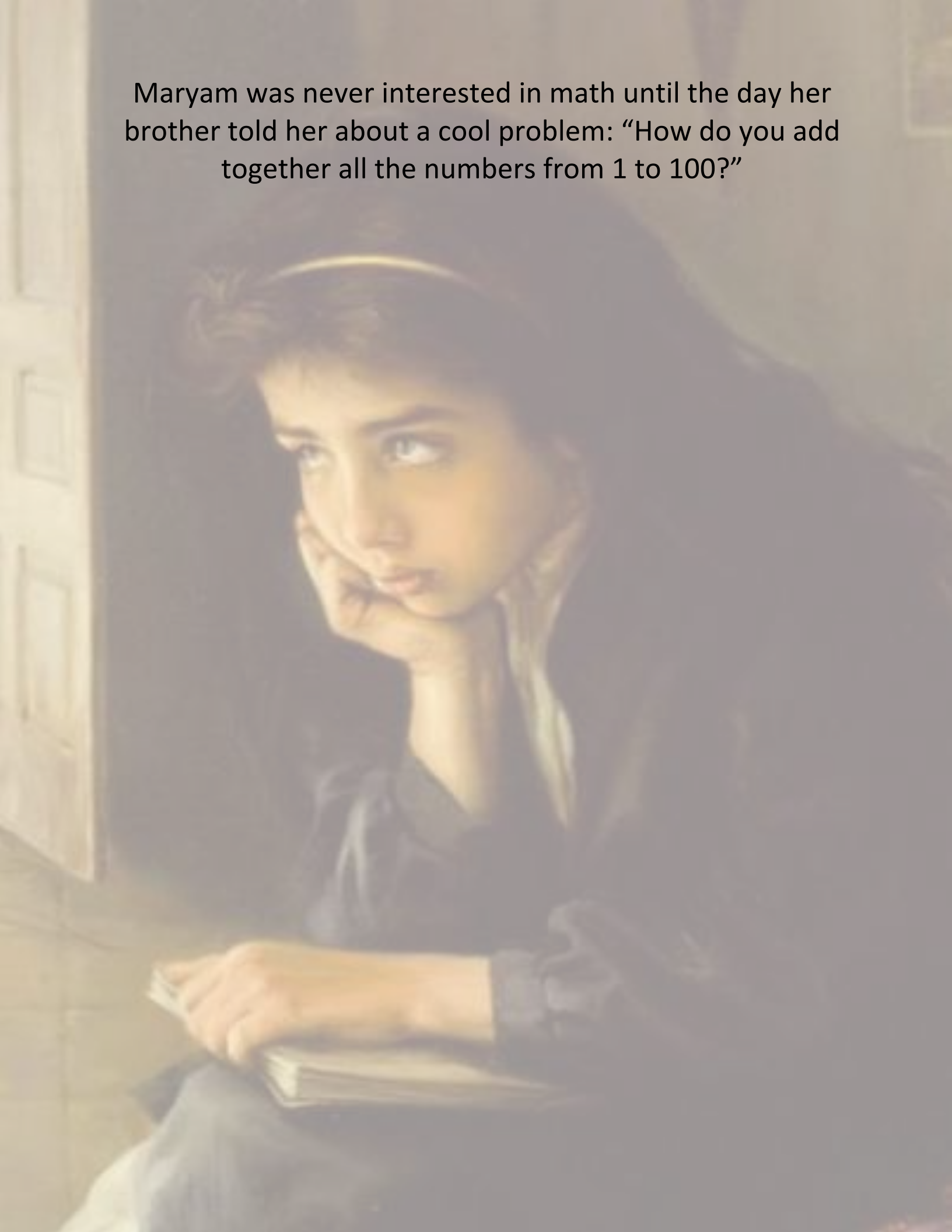
$(X) = R X(\text{INTEGRA}$

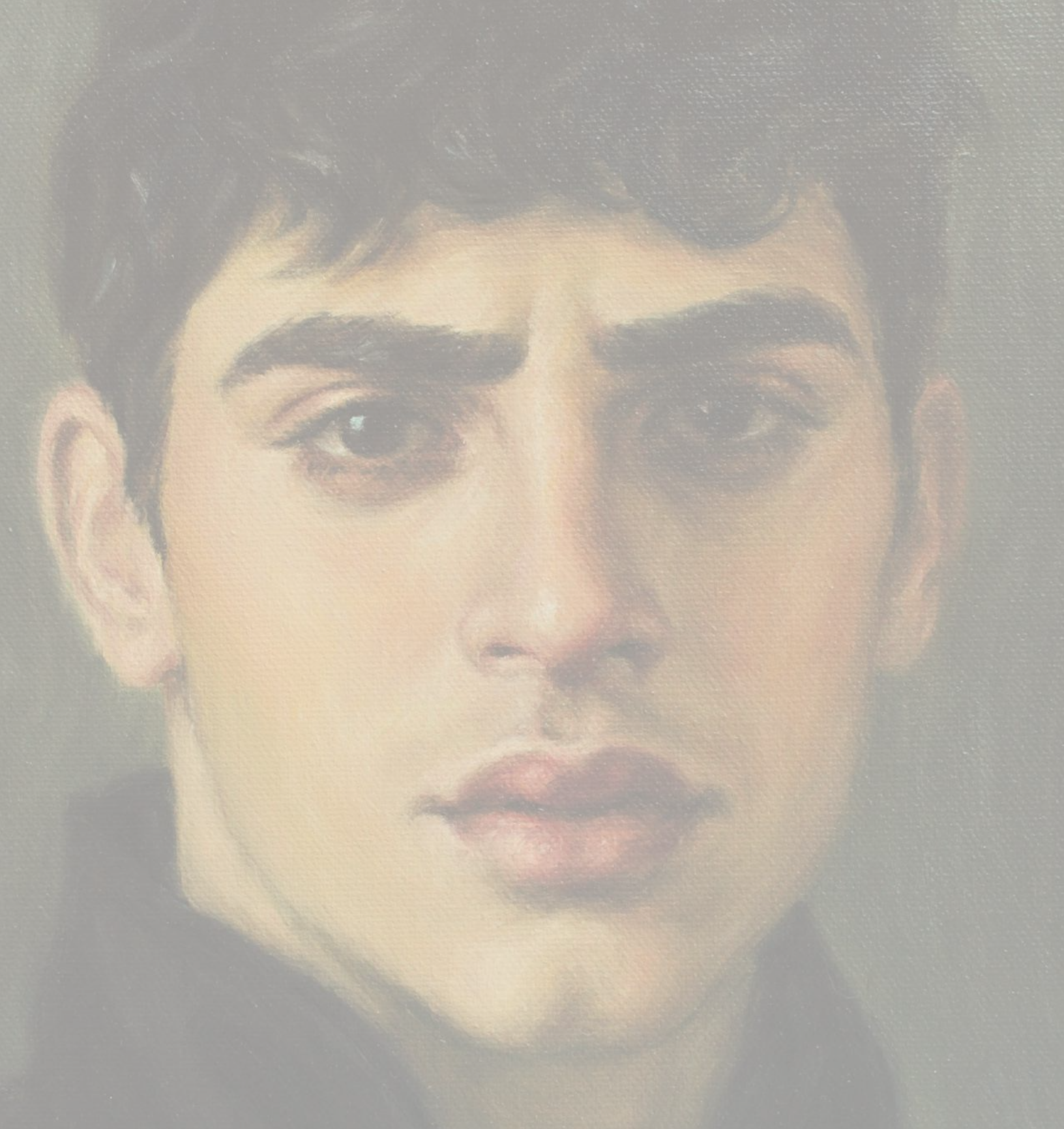
$(NF) E^{-RT} T(X-1)$

SINB



Maryam was never interested in math until the day her brother told her about a cool problem: “How do you add together all the numbers from 1 to 100?”





He explained that there were two ways to get the answer: a long and boring one, and a short and beautiful one that a mathematician called Carl Friedrich Gauss had discovered when he was still in elementary school.

Gauss took all the numbers and added them together in pairs – the first and the last, the second and the second last, and so on. He noticed that $1 + 100 = 101$, $2 + 99 = 101$, $3 + 98 = 101$, etc. so he was able to conclude that the total would be fifty lots of 101, which is 5050. Easy!



$$1 + 2 + 3 + 4 + \dots$$

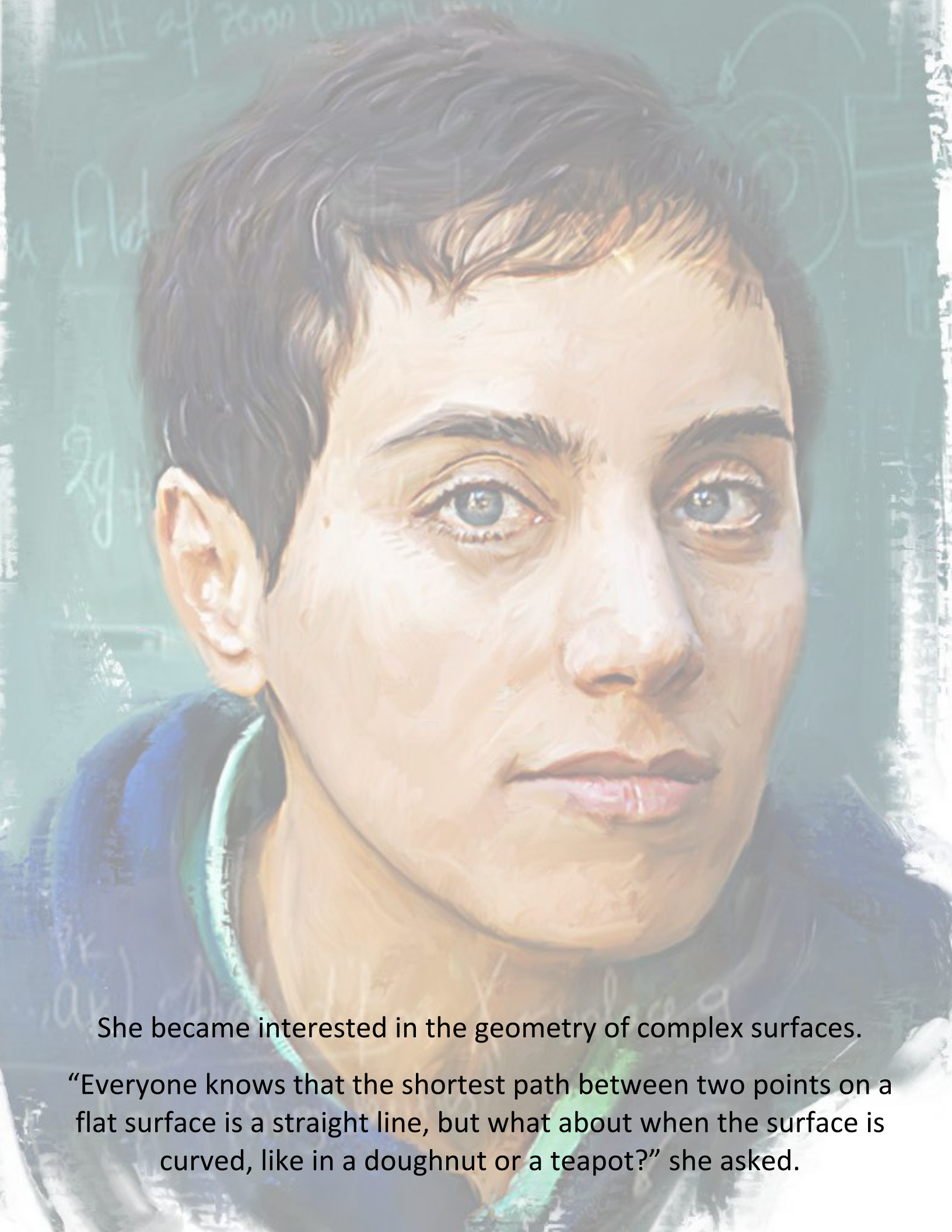
$$100 + 99 + 98 + 97 + \dots$$

$$101 + 101 + 101 + 101 + \dots$$

Maryam was hooked.

In high school, she competed in the International Mathematical Olympiad, winning a gold medal in two consecutive years.





She became interested in the geometry of complex surfaces.

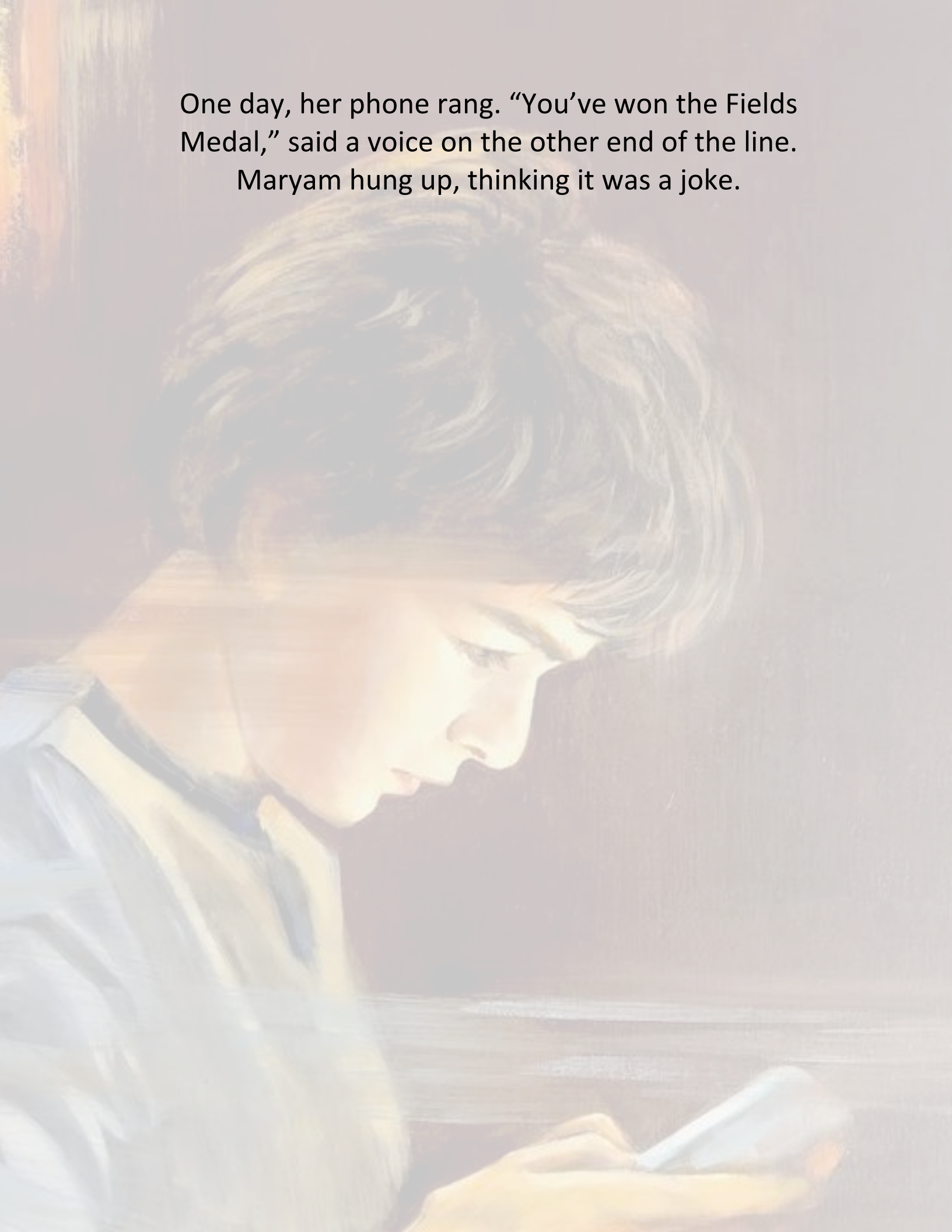
“Everyone knows that the shortest path between two points on a flat surface is a straight line, but what about when the surface is curved, like in a doughnut or a teapot?” she asked.



Maryam found joy in discovering simple, elegant solutions to these complicated problems.

“The more time I spend doing mathematics the more excites I get!”

One day, her phone rang. “You’ve won the Fields Medal,” said a voice on the other end of the line.
Maryam hung up, thinking it was a joke.



But it wasn't! She was the first Iranian-and the first woman in history – to win the world's most prestigious award for mathematics.





Mata Hari

Spy

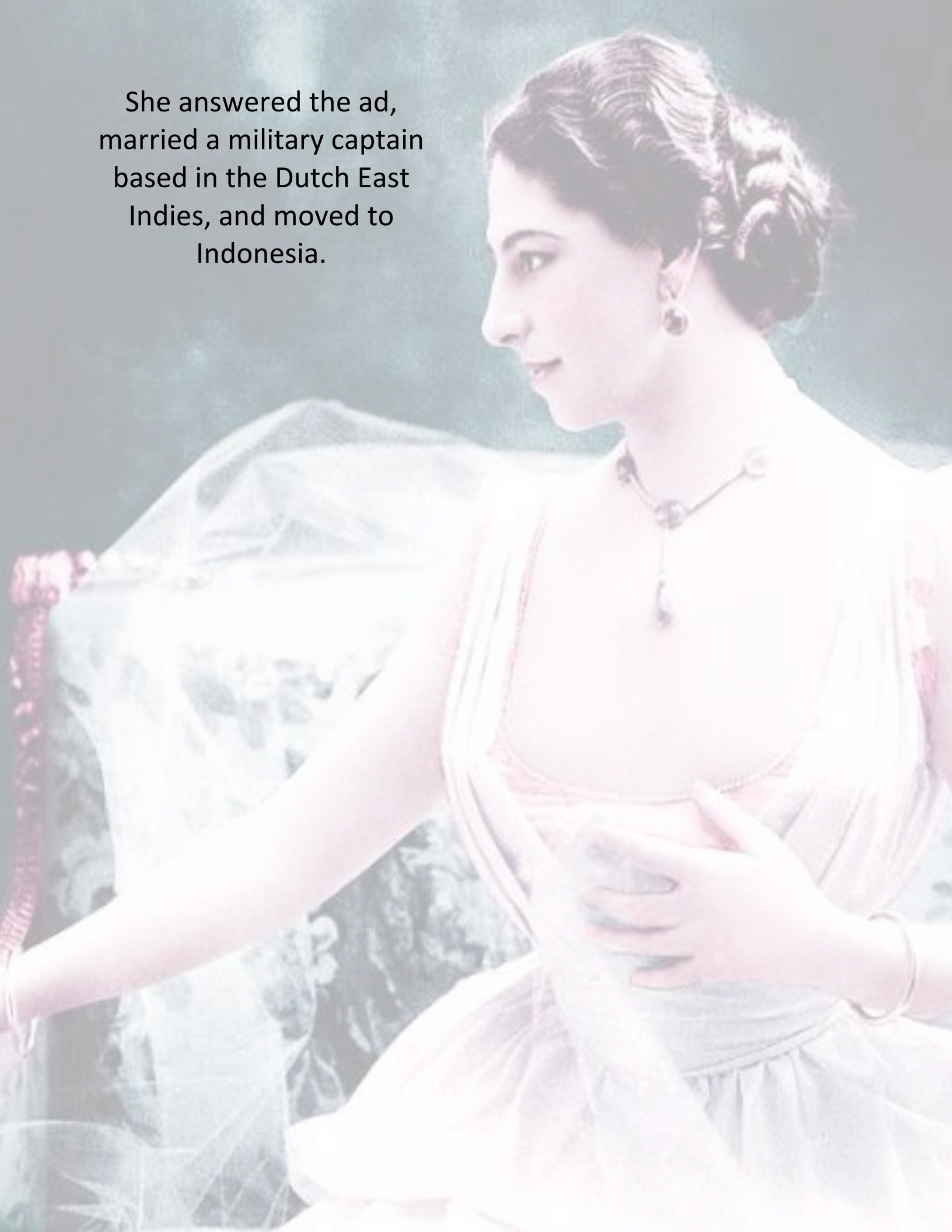
***“I was not content at home, I wanted to live like
a colourful butterfly in the sun.”***



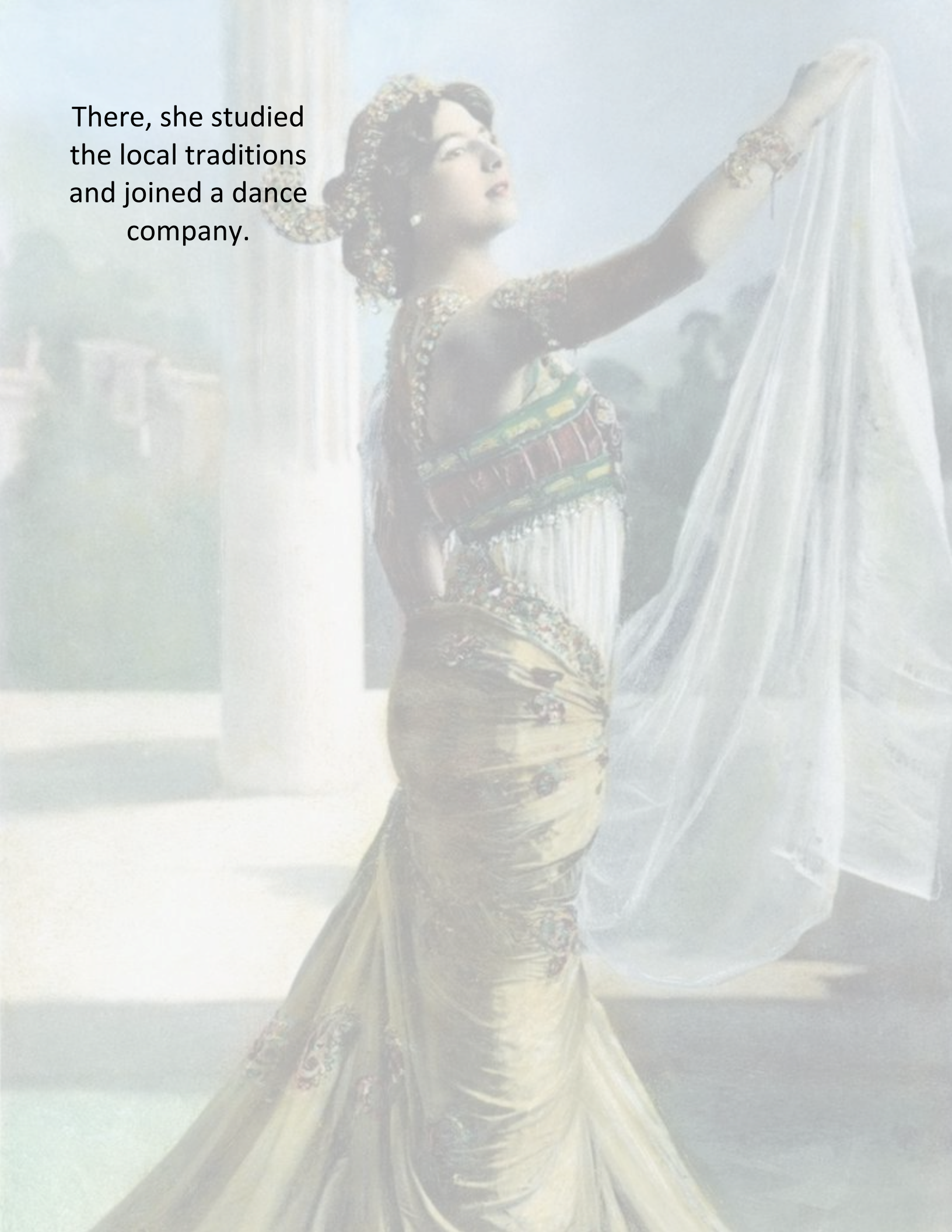
Once upon a time, a young woman named Margaretha saw an advertisement in a newspaper. It said, "Wanted: bride."



She answered the ad,
married a military captain
based in the Dutch East
Indies, and moved to
Indonesia.

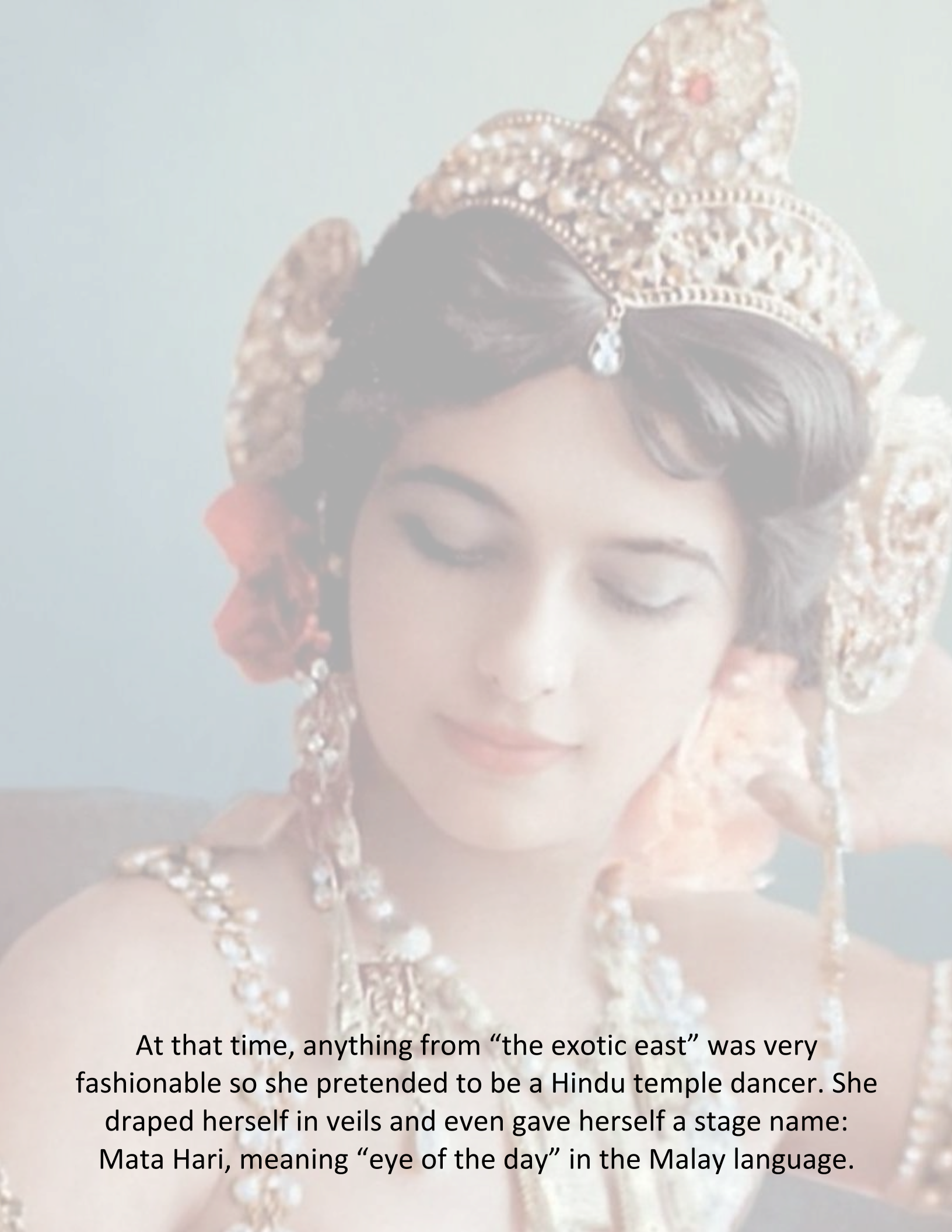


There, she studied
the local traditions
and joined a dance
company.



But her marriage was unhappy, and when it ended,
Margaretha moved to Paris.

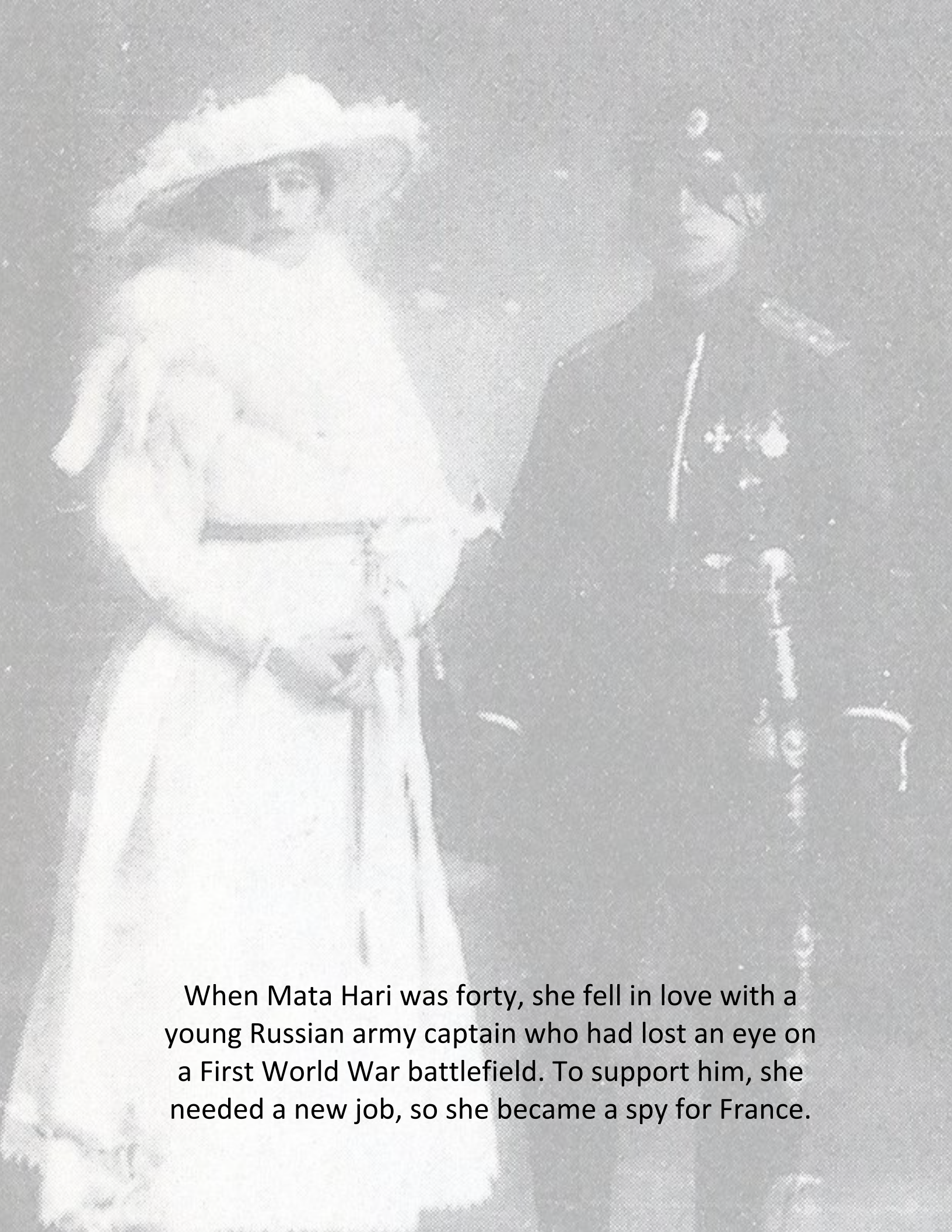




At that time, anything from “the exotic east” was very fashionable so she pretended to be a Hindu temple dancer. She draped herself in veils and even gave herself a stage name: Mata Hari, meaning “eye of the day” in the Malay language.

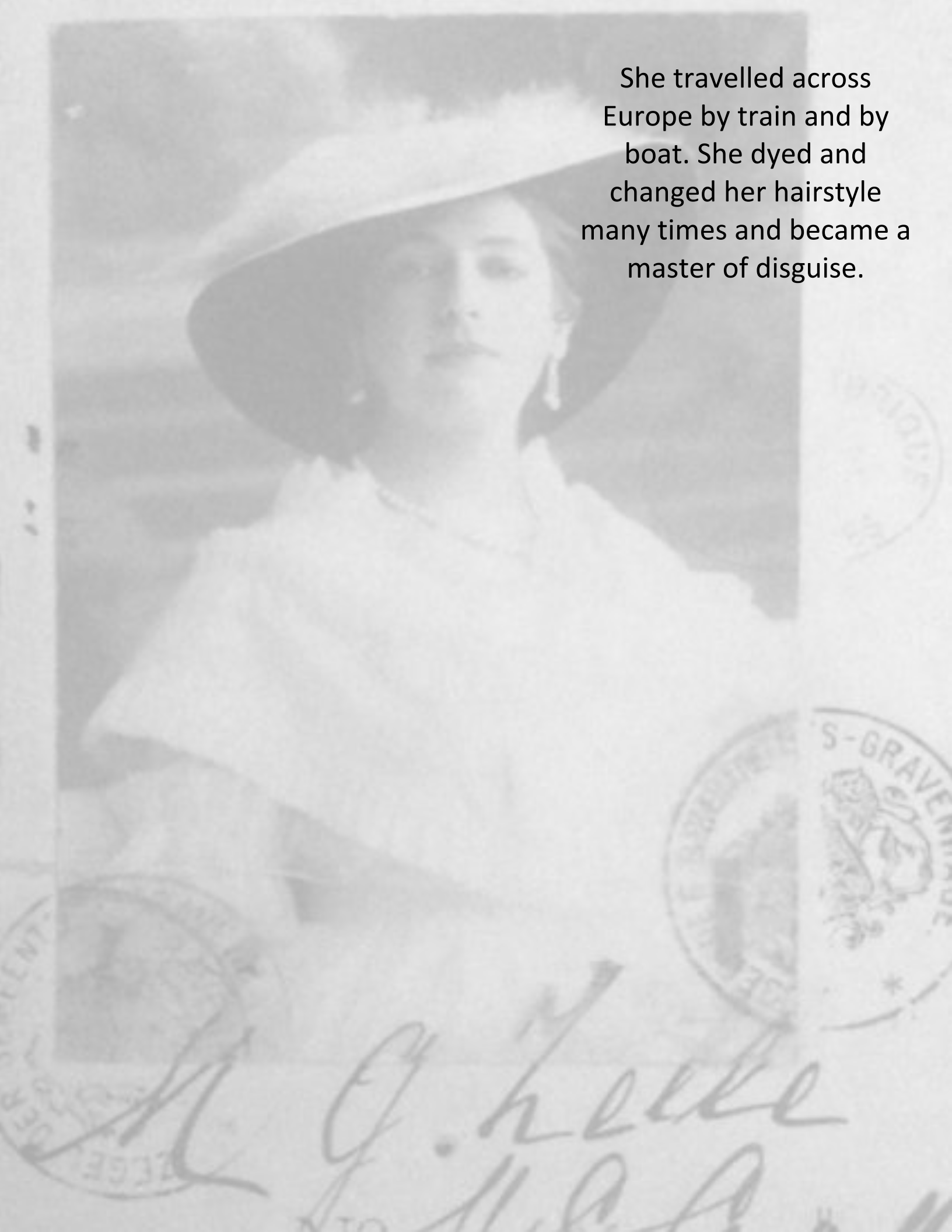
She danced with grace of a wild animal. She wore skimpy costumes, a bra studded with jewels, and skin-coloured body stockings. She became an instant hit!





When Mata Hari was forty, she fell in love with a young Russian army captain who had lost an eye on a First World War battlefield. To support him, she needed a new job, so she became a spy for France.

She travelled across
Europe by train and by
boat. She dyed and
changed her hairstyle
many times and became a
master of disguise.



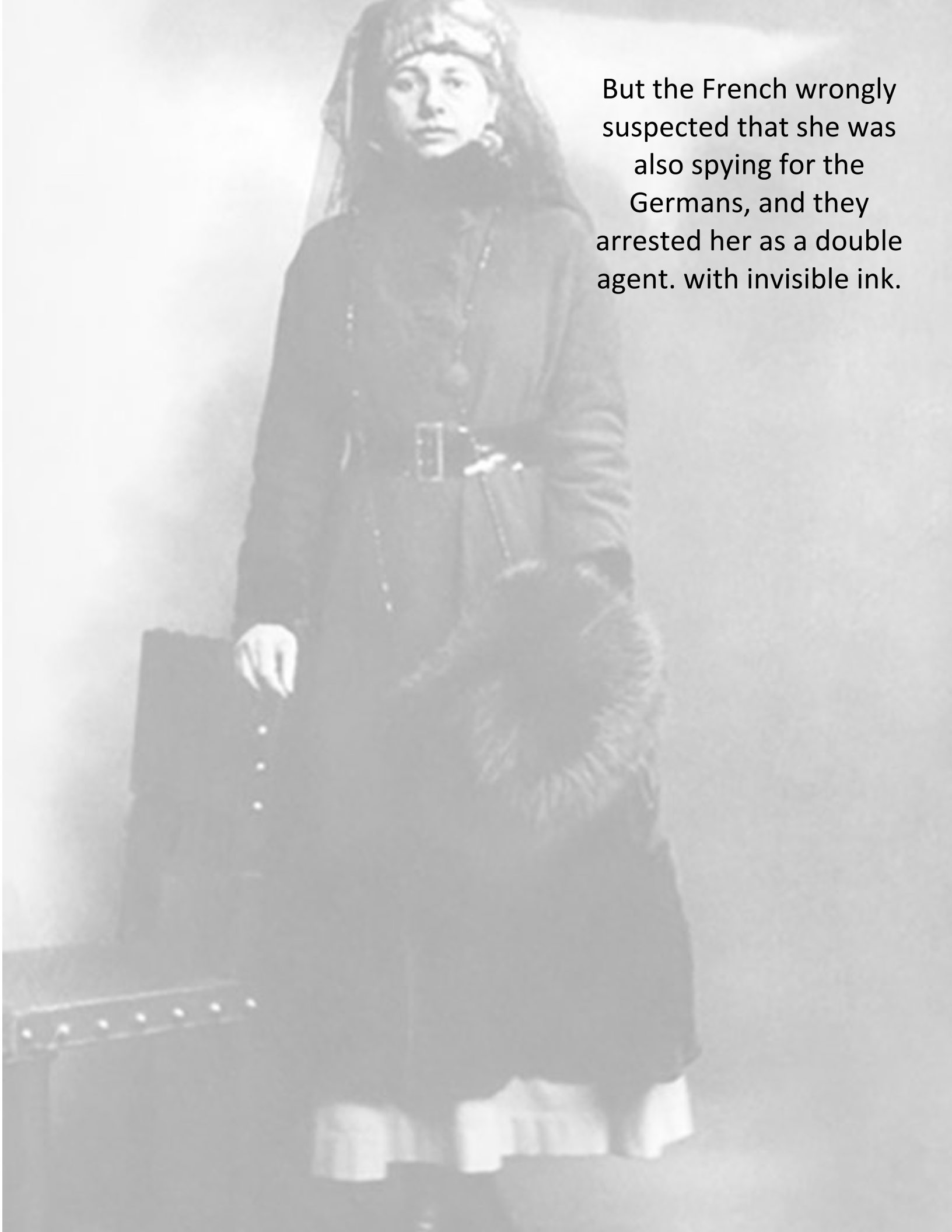
a wonderful time
Meet me
here. Wish you could
47th Street
be with me esp.
Lexington
during the holidays
film festival
Our friends here
at 10 a.m.
well and getting on
fine.

Love my husband

and family as always

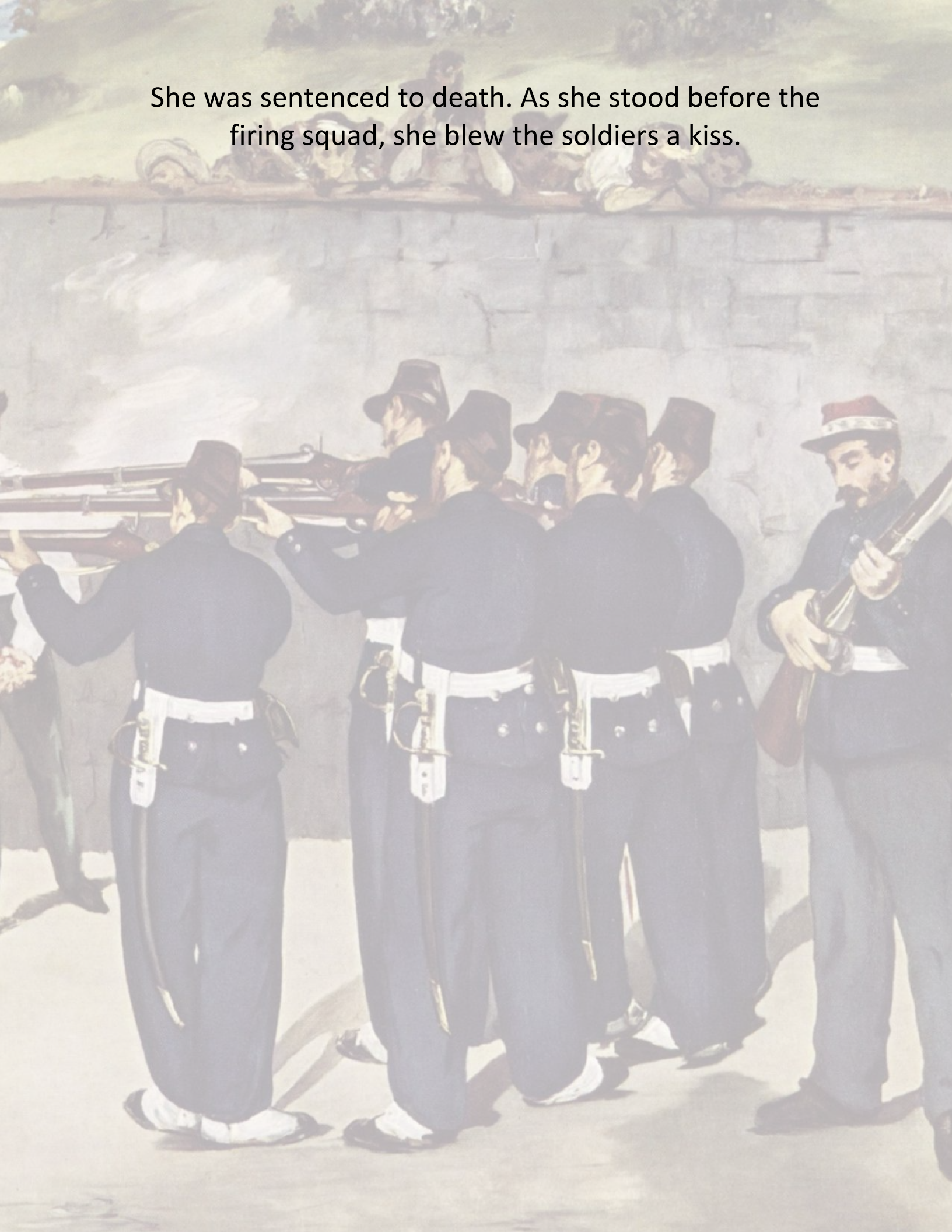
Paul

She found out about German submarines along the coast of Morocco and sent the information back to France in letters written with invisible ink.



But the French wrongly suspected that she was also spying for the Germans, and they arrested her as a double agent. with invisible ink.

She was sentenced to death. As she stood before the firing squad, she blew the soldiers a kiss.



Mata Hari died as she had
lived: fearless and free.



