



SUPER FRAUEN

Maria Reiche

The researcher who
rediscovered the biggest
secret of the Peruvian desert.

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Podcast Transcript

- [00:30]** Maria tightly presses her lips together and closes her eyes. She tests the rope one last time, making sure that it is knotted tightly enough around her stomach. Then there is a jolt. Everything wobbles and rocks tremendously — and the helicopter runners that she is tied to outside of the cabin lift up off the ground. She feels the desert dust in her nose, hot air whirls around her, hundreds of tiny stones pelt against her face. She no longer feels the ground beneath her feet: she is flying through the air. She holds a giant camera in her hands that is as heavy as a bucket of water. Maria slowly builds up the courage to open her eyes: beneath her is the grey and yellow floor of the desert, dotted with millions of rocks that become smaller and smaller as the helicopter flies higher and higher. Maria's heart races — like a giant picture book, the pampa lies just beneath her. For many years she has only studied it from the ground. She sees the outlines of the spider from above, then those of the monkey and the bird for the first time — giant figures that were drawn on the desert floor by the Nasca people around 2000 years ago. Maria balances the camera in her hands and shoots one photo after the next. She feels like the luckiest person in the world as she swings a few hundred metres above the earth through the warm, dusty air.
- [02:08]** In 1955 Maria takes off on her legendary, and somewhat dangerous, helicopter flight. In a lonely and extremely dry part of the world where hardly anyone willingly dares to venture: the desert near Nasca in Peru sits on a plateau where the sun burns at forty degrees Celsius and it usually only rains once every three to seven years. Hidden away in this isolated part of the world for centuries is a secret that the locals had completely forgotten about. Throughout the desert there is a network of lines, spirals, triangles and figures that were drawn into the ground by the Nasca people. Scientists call these pictures "geoglyphs." Their sizes range from several metres up to 1.9 kilometres long — so big that people only recognize them when viewing them from high up above.
- [03:09]** This hidden treasure in the desert was rediscovered by a headstrong German, who spent forty years of her life standing under the burning sun for hours on end, surveying and sweeping the lines and attempting to discover their meaning. And in the end, she would ensure that the whole world knew about the fascinating Nasca Lines. Maria Reiche, the "Gringa with the broom" was first thought to be a witch by the indigenous people of the area. They then began to understand her work — and eventually respect her for it. In Peru every child knows Maria's name — a school and an airport were named after her. However, very few people know of her in Germany.



- [04:00] So how exactly did a German woman find herself in the isolated Peruvian desert? Especially when travelling to another continent back then was still such a great adventure? We begin with Maria's childhood in Dresden. Early on she dreams of becoming a researcher. She writes down whatever she observes in her parents' garden: how long it takes birds to incubate their eggs. How quickly water evaporates when it's warm. Maria calculates everything that can be calculated and reads her father's books for hours on end. She constantly tries to broaden her knowledge and comes up with unusual experiments: for a period, she writes everything with her left hand in an attempt to train her mind.
- [04:45] After graduating from school, she goes on to study maths, physics, geography and philosophy and tries to become a teacher — but the middle of the 1920s is not a good time for people in Germany. Due to the Great Depression, many people are out of work and Maria can only find short jobs at various schools. Not too long after, more and more Germans turn to Adolf Hitler and his National Socialist Party celebrates its first successes — a bad omen in Maria's eyes. She also hears the way the Nazis speak — and is shocked by the inhuman ideas that are being spread. "Europe was under a dark cloud," she says about this time. "I feel such things deeply. When a great disaster occurs somewhere, I am sad all the time." She wants to leave. Anywhere. Maria reads in the newspaper about the German consul in Lima, the capital city of Peru. He needs a private teacher for his two children. In 1932, Maria departs Germany aboard a steamship to take up her new job — and begin her new life.
- [06:00] **Maria never had any reservations about trying something new. As a young woman, she emigrated from Germany alone and had herself tied to a helicopter for the spectacular aerial photos of the Peruvian desert. In which situations have you had to show courage and take a risk in order to achieve something?**
- [06:24] Maria is twenty-nine years old when she arrives in Peru. She immediately falls in love with the country she has read so much about: the culture that spans thousands of years, the Inca temples and ruins. The friendly and laid-back people. Women with their thick black braids and colourful dresses. Men whose faces have been deeply marked by the sun and life as the Andes Mountains. The locals teach Maria the indigenous language of Quechua, making it much easier for her to communicate with others. Alongside her work as a teacher, she travels around and gets to know the country — and swims several kilometres every day in the cold ocean. During this time, she gets to know Professor Paul Kosok from New York at a meeting with friends. He is travelling through Peru as part of his research into the Inca's irrigation systems. He had found lines in the desert near Nasca that were too shallow to be ditches for water — but they ran dead straight and seemingly endless towards the horizon. Maria listens intently to the professor and his theories. He proposes that the lines could be astronomical markings, as the sun set exactly at the end



of one of the lines on the day he visited the desert. Maria talks with the professor about what he had found — and offers to return to Nasca and research the lines for him. He agrees.

[08:05] Come December 1941, Maria is ready to go. She sets off for Nasca with a small suitcase, notebook, compass and tape measure. Dust, sun, a few simple houses made out of mud and a small hotel with a roof full of holes — this is how the city on the edge of the pampa presents itself to the German when she arrives. Maria is nonetheless enthused. She senses that the pampa is waiting for her. No one can tell her anything about the mysterious lines. Maria discovers that sailors in the 16th century brought the smallpox disease to South America from Europe, wiping out a large portion of the population — including the descendants of the Nasca people who first drew the lines. The knowledge of the lines was also lost with them.

[09:00] As Maria stands in the desert at sunrise on the first morning, it glows red and magical. Maria breathes in the mild air over and over, fulfilled by the vastness around her. She wears a scarf on her head to protect herself from the sun, a light dress and nothing else aside from her measuring tools, sultanas and nuts as her provisions. In the early morning the air is especially clear and she can already spot the first line: it is light yellow, standing out from the darker desert floor. There are small and large stones piled up around the edge which have been moved to the side. Maria's heart pounds. Here she would be able to do exactly what she loved as a child: measure, take notes, calculate.

[09:50] On her second expedition, Maria discovers something surprising: as she follows one of the lines on foot, she finds that it eventually forms a large curve. Then it goes straight again before forming a continuous series of small curves. After recording her steps in her notebook, Maria realises something: her path forms a humongous spider. It is so large that she could have never recognized it from the ground — and so perfectly drawn, as if the artists had used a giant ruler and compass to create it.

[10:25] With each and every expedition in the Pampa, Maria discovers more and more shapes: a hummingbird, a monkey, a whale, a condor. There's even a person who almost looks like an astronaut waving hello. What had the ancient Nasca people tried to say with these images? And how on earth could they have drawn these figures in the ground with such perfection and size 2000 years ago? Maria is convinced that the network of lines depicts an astronomy calendar and the figures show constellations from 2000 years ago. She also believes that the Nasca artists were brilliant mathematicians who could convert small drawings to huge surfaces, using string to help enlarge and transfer their drawings onto desert floor. Maria had also read in books that some native South Americans had hundreds of years ago already built primitive hot air balloons that could fly for short periods of time. Could it be that the Nasca people already had this skill? And could they have overseen their work on the figures from the air?



- [11:45] The great dangers posed to this treasure in the desert are clear to Maria, with people having carelessly walked all over it for centuries. During the construction of a freeway, the road was paved directly through the drawing of an iguana. The tire marks from cars that have travelled across the pampa similarly crisscross through many of the lines and figures. An entrepreneur's plans to buy large swathes of the pampa to irrigate and farm cotton on it also sets off alarm bells for Maria. In the end, there is only one thing she wants: to gradually measure the thousands of lines in peace and solve their riddle. But her research is like a race against time. So Maria had to succeed in drawing people's attention to this work of art in the desert — to make it clear to them that it had to be protected.
- [12:37] Maria, the scraggy German with the dusty grey hair who walks through the isolation of the desert every day, starts to stick out like a sore thumb in the region. She succeeds in getting some Peruvian newspapers interested in the Nasca Lines. She writes articles, holds lectures and approaches politicians and researchers. In fact, Maria's work arouses interest in the lines globally: people want to know more about the mysterious desert markings.
- [13:08] By the time Maria takes her spectacular aerial shots of the figures on her 1955 helicopter flight, the press is in a frenzy. People across the globe are enthralled by theories about the geoglyphs' possible meaning. Some believe that it was the Inca's playing field. Due to their size, others consider the markings to be messages for aliens from the Nasca people — and the lines are an airstrip for the UFOs.
- [13:42] The growing popularity of the markings is both a blessing and a curse for Maria: as more people become interested in protecting the site, tourists also flock to the desert, lured by the mystery of the site and leaving their mark with their cars as they search for the figures. "The many tire tracks on the pampa hurt me. The spider is completely trampled," writes Maria worriedly to her sister. Some tourists even follow Maria around, hoping to find a new figure with her. Maria often solves this problem quite practically: she puts a tape measure and notepad in their hands and instructs them to help her.
- [14:28] **The more people became aware of the fascinating Nasca Lines, the greater the rush to the desert of Peru. However, this growing awareness and the associated mass tourism represent a great danger for the desert treasure. What effects does mass tourism have on cultural and natural monuments and what other examples can you think of?**



- [14:57]** Despite the popularity Maria receives from the press reports on the Nasca Lines, she receives very little money to live on. Over the years she had lived in a simple mud hut near the Pampa, with nothing else aside from a bed, desk and cupboard inside. She puts the small amount of money she earns from grants and writing articles into projects that protect the lines. For example, in 1976 she has a thirteen-metre-high observation tower built on the edge of the Pan-American Highway. The purpose of this tower is to allow tourists to enjoy the wonderful view of the different figures without walking across the desert. Maria also hires a guard to watch out for people driving through the area.
- [15:45]** In the middle of the 1970s, something spectacular happens in the desert that Maria is very happy about: using materials from that time, the American adventurer Jim Woodman wants to prove that the Nasca people did actually construct a hot air balloon 2000 years ago. Woodman builds a basket out of reeds from a nearby lake. To create the balloon, he uses a huge, sturdy cotton cloth — just like the cloths that were found on Peruvian mummies. On the day Woodman is set to climb into his ancient balloon and fly over the Nasca Lines with his colleague Julian Nott, masses of people congregate in the area to celebrate this event. Maria is also amongst the spectators. Sitting over a fire, it takes hours for the balloon to fill with hot air before finally taking off with Woodman and Nott in the basket. For a few minutes they fly up to 130 metres off the ground, with the drawings lying beneath them in their full beauty. Their flight demonstrates one very important thing: the Nasca people were also capable of flight. Whether or not they actually did fly in a hot air balloon will, however, probably remain a secret.
- [17:00]** For more than forty years Maria works almost daily on the Pampa, always discovering new figures along the way. The isolation, the heat — none of that matters, as long as she can do her research. “When I work, I do not feel hunger and thirst and getting older,” she said. Once she reaches her eighties, however, Maria is almost blind and cannot read her own notes when she holds them close to her eyes. Walking has also become difficult for Maria — sometimes the locals piggyback her through the desert to the lines. Until the very end, Maria hopes to find conclusive evidence for her calendar theory. But every time she thinks she has solved the puzzle, three new ones emerge with the next figure.
- [17:52]** In the 1990s, Maria and her work are recognised with several accolades. She becomes an honorary citizen of Peru and also receives an honorary doctorate. The most important moment for Maria comes, however, in 1994: after years of effort, the Nasca Lines are named a UNESCO World Heritage site and have since then received better funding for their protection. Not long after in 1998, Maria dies at the age of ninety-five. “Adios, Maria,” read the newspaper headlines that are full of admiration. Today, many Peruvians still recall her rediscovery of the monumental cultural wonder. Even today, the Nasca Lines and Maria’s accounts of them still fascinate researchers. Nowadays it is fairly certain that the lines do



not depict a calendar. Instead they were created during fertility rituals, where people prayed for rain to come down on the dry plane 2000 years ago. The stone desert still keeps many secrets to itself. And Maria? She will always be very close to the Nasca Lines. She was buried at the edge of her beloved pampa, where she had always felt the most at home.

[19:13] Thanks to Maria's tireless work, the Nasca Lines have been recognized as a UNESCO World Heritage Site. Which place or which cultural site is so important to you that you absolutely want to preserve it?

PODCAST EPISODE

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