

Childhood Wanderings

As he grew older, seeing his reflection in the mirror, Pierre-Gilles de Gennes would often be startled to find his mother's features in his own face. Day after day, the resemblance became more striking, to the point that those who had known Countess Yvonne de Gennes it became a matter of comment for. Through this disconcerting similarity, his mother remained constantly in his memory. A woman of conviction and strong personality, it is an understatement to say that she exercised considerable influence on his childhood, a time marked by his parents' separation and by war, yet one that he paradoxically remembered as happy — unless reticence prompted him to conceal its most painful episodes.

Madame Yvonne de Gennes came from a very wealthy background, the Morin-Pons, a great Protestant family with banking interests in Lyon. Originally from France's Drôme region, her ancestors had migrated to Geneva following the revocation of the Edict of Nantes, with *“just what they could carry on their backs”*. In 1805, a young man called Pons persuaded a number of Geneva bankers to help him set up a loans office in Lyon, which was experiencing an economic boom. It was the start of a banking dynasty: the Veuve Morin-Pons Bank — so called in tribute to the heiress who, in the late 19th century, managed to save the bank when a cashier had run off with all the

money — would remain in existence until 1996, when it was taken over by Sanpaolo Bank. Pierre-Gilles' great-grandfather, Henri Morin-Pons, only worked there out of duty, preferring stamp collecting and the opera to loans and investments. In fact, he was the author of *Numismatique féodale du Dauphiné*, a reference work on stamps, and of romantic operas, the librettos of which remained in Pierre-Gilles' possession. Paul, the son of Henri Morin-Pons and Pierre-Gilles' grandfather, took things further: he never set foot in the bank, but lived off his annuities, subsequently occupying a position as Austro-Hungarian consul in Lyon. His first wife was a very attractive Englishwoman, who bore him a daughter, Yvonne Morin-Pons, Pierre-Gilles' mother. Soon after little Yvonne's birth, however, her parents separated and took little further interest in her, her mother remarrying a good-looking cavalry officer whom she followed from garrison to garrison, and her father spending much time abroad. *"My grandfather explored the Balkans on horseback in the 1900s. Then, he spent every summer with his new wife, a very young and ravishing Italian called Antoinette, nicknamed Nietta, on the banks of Lake Balaton in Hungary or in Venice. We still have old leather suitcases with the labels of the hotels they stayed in. They led a life that we would find hard to imagine today"*, smiled Pierre-Gilles de Gennes.

In his childhood and teenage years, Pierre-Gilles regularly spent time with this "charmed" family. *"My Aunt Madeleine had a superb house with extensive grounds, near Lyon. She was an ardent Bonapartist, and all the rooms were decorated with souvenirs of the Emperor. Since, as a child, I was very interested in the imperial campaigns, I got on well with her"*, he recalled. *"We also used to go to Switzerland, as guests in some splendid residences. I could draw up an unending list of cousins living by Lake Geneva. Actually, the house where the negotiations between the de Gaulle government and the Algerian resistance took place was a former family house of ours."* The boy was also sometimes invited to join hunting weekends in Sologne organised by his uncles. *"They drove old black Citroen jalopies at speeds that seemed vertiginous at the time. I used to love those hunts, running along the streams with the dogs."* This family background gave him the deportment and discreet elegance of young men of good family, qualities he would never lose. As an adult, however, he distanced himself from this milieu, returning to it only on rare occasions.

The Great War

As a child, his mother spent the majority of her time in this great family, which took her in in the absence of her parents. *“But she felt abandoned and had an unhappy childhood”*, regretted Pierre-Gilles de Gennes. She married in May 1913 on an impulse, but the marriage did not last, which hurt her deeply. When war broke out, she immediately signed up to become a nurse. After six months of cursory training, she was sent to the front. *“She lived through the worst battles: Chemin des dames, Verdun... She was a woman of extraordinary strength”*, he recalled. She was tireless in her attention to the wounded soldiers, showing a devotion that commanded respect from the doctors. In 1917, in one of those campaign hospitals a few kilometres from the front, she met Robert de Gennes, a doctor who had been mobilised at the start of the war, immediately after graduating. He had great presence. He was a count, and his father, Paul de Gennes, a great Parisian physician, founder of the Boucicaut Hospital in Paris.¹ This doctor had married a Brazilian, Jenny Barboza Tinoco, who had borne him two sons, Robert, father of Pierre-Gilles, and Lucien, his uncle, both of whom became doctors. Robert had inherited his mother’s tanned complexion and dark eyes. He had a soft voice and an attentive manner. The young nurse succumbed to his good looks and charm. They would meet during their breaks and make plans, but the war looked like it would last forever. *“They saw people dying around them every day”*, sighed Pierre-Gilles de Gennes. When the Armistice was finally signed in November 1918, they set up house in Paris, in a fine apartment on Avenue de Camoëns, in the 16th Arrondissement, close to Palais de Chaillot today. Robert de Gennes started a practice that quickly drew an Anglo-American clientele, since Yvonne de Gennes, with her British mother, spoke fluent English and served as receptionist. They married in December 1919, when she was 29. *“They had a happy 10 years together”*, according to their son. From 1930 onwards, however, the relationship began to crumble. Yvonne de Gennes, who

¹ See appendix on the history of the family.

could be impetuous and rigid, was difficult to live with. She was also very talkative and would drown those polite enough to listen to her in words. Patient as he was, her husband found her harder and harder to tolerate, and began to have affairs. She became unbearable. He could no longer put up with her incessant reproaches and considered ending the marriage.

Pierre-Gilles was born on October 24, 1932, but his birth did not mend the relationship. Realising that separation was inevitable, Yvonne de Gennes reacted in an unusual fashion. She abandoned her son, then a few months old, and set off on a long solo trip across Europe, as far as Turkey, to assuage the pain caused by the failure of her marriage. Later, she would justify herself by saying: *"I had no interest in looking after a child who was not yet able to speak"*, concealing the real cause of her departure. During her absence, the little boy was raised by a nurse in his father's house. On his mother's return, three years later, everything would change: she retrieved her son, never to let him go again, as protective as a mother wolf. From then on, Pierre-Gilles would live with her, first in Versailles, then in Rue Fantin-Latour in Paris's 16th arrondissement, a stone's throw from the banks of the Seine, and would only see his father for the odd weekend and short holiday.

Two Places, Two Worlds

Like many children of broken homes, the boy lived a life divided between two places, two worlds. Arriving at his father's flat on a Friday evening, in Avenue de Camoëns, he would be welcomed by the governess Maria, a corpulent, warmhearted woman, who was devoted to him. She would take his coat and let him run off to play with Blaise, Zoar, Gin and Fizz, the house's four lively fox terriers. Then, Pierre-Gilles would have supper and go to bed without seeing his father, who would be working late. But as soon as he woke on Saturday morning, the boy would dash into the living room for a hug. The doctor was an affectionate father and, if visiting patients, would sometimes let his son come along. The child would then climb proudly into the paternal car and, consumed with admiration,

gaze adoringly at his father. *“His patients loved him. He was a serene and gentle man, who never lost his temper”*, recalled Pierre-Gilles de Gennes. *“He had a sort of Brazilian calm that I have perhaps inherited”*, he speculated. *“My secretary, Marie-Françoise, tells me that I taught her the merits of being laconic. I tend not to get carried away with words, except when talking about science.”* When the visits were over, they would go home for lunch with Alice Conway, a beautiful American whom Robert de Gennes had married in 1936. Pierre-Gilles called her Aunt Alice and got on *“reasonably well”* with her. But she was a moody woman, and it was not a happy marriage. *“I know, because my father had notebooks where he recorded the scenes she caused, for example when she didn’t get the table she wanted in a restaurant”*, regretted Pierre-Gilles de Gennes. On Sunday afternoons, they would walk in the Bois de Boulogne, where Pierre-Gilles would sail his toy boats in the lake: a grey fishing smack with a red sail, an elegant white yacht and a cruiser with a clockwork motor. When one day this cruiser got lost in the branches, Robert de Gennes immediately promised to buy him another one. *“As a child, I was showered with presents, spoiled by a father who didn’t see enough of me. I can remember some luxurious Christmases”*, he admitted.

“With my mother, it was the opposite. It wasn’t at all her style, which was rooted in a Protestant upbringing.” Yvonne de Gennes was not a mother who found it easy to cuddle her son. There were neither kisses nor effusions of any kind. *“She had that slightly distant British style. I can also be like that sometimes, and people are occasionally surprised that I find it hard to shake hands. My mother kept a certain distance, but she wasn’t cold. I didn’t have the impression that my mother was unloving — I remember she used to warm me up by blowing warm air on my back — but she believed in certain values, for example it was important not to show emotion and to exercise self-control”*, he explained.

In fact, the atmosphere in the little flat on Rue Fantin-Latour was quite cosy. Yvonne de Gennes had not remarried, but they were not on their own, as she employed au pair girls to help her, for example Alla and Irène. *“In the 1930s, there were many White Russian émigrés in Paris. My mother took an interest in one woman, whose officer husband had died in Russia, and was living on her charms. My mother was*

concerned about her daughters, Alla and Irène, aged 17 and 18, and therefore helped them. They very often looked after me, for example on holiday in Royan”, recalled Pierre-Gilles de Gennes.

The boy had no difficulty moving between his father and his mother. “I don’t remember suffering from their separation. It was my life from an early age so there were no sudden shocks. Nor did I have any reason to reproach either of them. My mother always spoke of my father with admiration. She told me a great deal about their shared memories, about the war or their expeditions — which we would find heroic today — in Andalusia or in Morocco, for example, where my father painted watercolours that we kept.” However, the war was to bring this life as a spoilt little Parisian to an end, depriving him of his home and separating him from his father, who would die in 1941.

Fleeing the War

On September 3, 1939, after Hitler’s invasion of Poland, France declared war on Germany. The Phoney War began and lasted until the German offensive in France in the spring of 1940. “I don’t remember the day war was declared, but I remember an incident in the Phoney War. The English navy had given chase to a German battleship that was attacking British merchant ships in the Atlantic. It was called the Graf von Spee. It had taken refuge in Uruguay, before being attacked and finally scuppered by its own crew.² The adventures of this battleship, which I followed with my father, who had a keen interest in naval matters, left a strong mark on me as a little boy”, he recalled.

At the end of 1939, Yvonne de Gennes was at her wits end. Her concern was not so much the German threat as her son’s health. Now seven, he suffered from a cough, difficulty in breathing and pains in his chest. Robert de Gennes diagnosed pleurisy. “My parents were very worried, because it was the same tuberculosis bacillus that attacks the pleura instead of the lungs. I heard them say: ‘This child is going to catch TB, and there’s nothing we can do to treat him.’ I can still see my father, in

² The Battle of the River Plate, on December 13, 1939, is considered to be the first big naval battle of World War II.

uniform, because he had been mobilised in a hospital, sticking a huge needle into me”, shuddered Pierre-Gilles de Gennes. Following this spell in hospital, his parents decided to get him out of Paris, both for the benefits of a favourable climate and to protect him from the war. In early 1940, Pierre-Gilles and his mother moved into a hotel in Arcachon, a place famous for its warm air. In July, on a seaside walk, they heard the strains of military music. The Germans had entered the town and were parading. As they marched past, Yvonne de Gennes went pale. She squeezed her son’s hand hard and pinched her lips. Pierre-Gilles was shocked by this reaction from someone who usually allowed none of her feelings to show. *“I don’t know if any tears fell, but inside she was crying”*, he still recalled with emotion. War had come, and they were in the middle of it.

They returned to Paris, but stayed only a short time before leaving for the free zone. Three quarters of the population had left the city. More than 13 million refugees were on the move. Yvonne de Gennes and Pierre-Gilles took the train to Grenoble from the Gare de Lyon, accompanied to the station by Robert de Gennes. Pierre-Gilles hugged him before climbing aboard. It was the last time he saw his father. Robert de Gennes would die in 1941 of a heart attack, like his own father, Paul de Gennes, in 1918. *“My father’s death affected me, but having not seen him for more than a year and a half, I probably suffered less than would a child who had lived by his side and suddenly experienced a big void. The void was already there in a way”*, he explained. He didn’t attend the funeral at Montrouge Cemetery in Paris, as his mother did not want to take him across the demarcation line. Sixty years later, Pierre-Gilles de Gennes wondered how he would have got on with his father if he had lived. *“In fact, I didn’t know him very well. Although he was always ready to give me a hug, he was an intimidating figure, a man with a 19th-century upbringing.”*

Indulgent father he may have been, but he was nonetheless a man of his time with an attachment to tradition. *“He was a royalist, and I remember that he used to hang out a flag to mark the Festival of Jeanne d’Arc.”* He insisted on his son acting fittingly. For example, one day when he caught him whistling in the house, he reprimanded him severely: *“Behave yourself. I don’t want you whistling like a stable boy”*,

Pierre-Gilles reported. *“I don’t know if we would have got on well, but I feel an enormous affection for him. His life was often sad, particularly in his final years. He was very lonely.”* Indeed, as soon as war was announced, his wife Alice had *“wisely returned to America”*. He spent all his days at the hospital and sent his son postcards full of false cheer, telling how he had brought home a big stray dog, which had made the governess Maria shriek, because there was nothing to feed him. Robert constantly repeated that the separation was necessary, because he needed mountain air for his fragile lungs, and would finish his messages with a kiss for his “chubby chap”.

Arrested

When the train reached Grenoble, Pierre-Gilles and his mother took a coach to Villard-de-Lans. Yvonne de Gennes had chosen to take up residence in this fashionable “health resort”, frequented by the Austro-Hungarian Empress Zita and King Hassan II of Morocco. In the coach, Pierre-Gilles could not tear his gaze from the mountains. The Alps would become his adoptive home.

Pierre-Gilles spent some very lonely months in Villard-de-Lans. Even in Paris, he had had no friends or playmates. *“I can’t remember any children being around. My parents were over 40 when I was born. I imagine their friends had older children”*, he speculated. At Villard-de-Lans, he had no companions either, and spent all his time in his mother’s company. However, she had to go to Paris to settle “matters”, such as the estate of her father, Paul Morin-Pons, who died in 1941, but also to make sure that there was no damage to her apartment, and was often absent. On these occasions, she left Pierre-Gilles in a children’s home, of which there were dozens in the town, places for children with tuberculosis to convalesce. There was a family atmosphere in the home, but Pierre-Gilles kept to himself and hardly mixed with the other children. He put a good face on things during the day, but felt afraid on some nights in the dormitory. *“I would sometimes get into a panic. Then the monitors, very sweet girls, would come running to comfort me”*, he confessed. They would rock him in their arms and hum songs. He would write to his

mother, asking her to come back, but she would stay as long as necessary, sometimes several weeks. Perhaps this explains certain traits he showed in later life. *“He needed to have people around him, he found it so hard to be alone”*, according to his wife, Anne-Marie de Gennes. Whatever the truth, he felt lonely in that children’s home and learned to look after himself. This feeling reached its height the day he was summoned to see the director of the home, a doctor who loved to pamper his young charges. The boy was nervous and curious: the director never brought children into his office. *“I have some bad news for you. Your mother has been taken by the Germans.”* Pierre-Gilles burst into tears: *“Is she going to be shot?”*, he asked. The director tried to reassure him, but the little boy was not convinced. Yvonne de Gennes regularly crossed the demarcation line without authorisation, but that night things had gone wrong. The guide had led her with others up an embankment, but on the other side they had run into a German patrol, which had arrested them all. The child lived in fear until his mother was released from prison a month later. Usually, their reunions were unemotional, but this time she hugged him for a long time.

“She had fought like a tiger, shouting at the Germans: ‘I’m not afraid of you, I was in the Great War, I was at Verdun’”, recounted Pierre-Gilles de Gennes, aware that the woman who raised him was a real mother courage figure. She stood fast against the Germans and then, from 1943, she would take risks to help the Jews. *“She was a dyed-in-the-wool Pétain supporter at the beginning of the war, but, like many people, radically changed her point of view when she became aware of what was being done to the Jews”*. She would carry sacks of food to Jewish families hidden in the mountains, passing the German guard posts without bothering to change her story from one week to the next: whatever the season, she claimed to be going to pick mushrooms. She was afraid of nothing, which was a cause for admiration, but sometimes of embarrassment too. *“She liked strolling around the old villages and, when she saw a fine looking house, she would say: ‘Let’s go and look, it must be very beautiful.’ Being a child, I was terrified at the idea of going into people’s houses, but she had no inhibitions”*, he recalled.

Not only did she lead by example, but she was as demanding on her son as on herself. She gave him an upbringing based on abnegation and self-denial, which could have a “*somewhat military side*”, he acknowledged. For example, she pushed him to finish what he started. “*She would get a bee in her bonnet. She had decided that we were to go on bicycle rides. I can still see myself crying away, trying to pedal my heavy bike up a hill, with the sun beating down*”, he remembered. It was out of the question to get off and push, so he reached the top in tears. In ways like this, she encouraged him to push himself to the limit in all circumstances, until the little boy developed a steely character and acquired a tolerance for hard work that would prove critical in his career, since it is often tenacity that distinguishes the exceptional scientist from the average.

An Unusual Education

Yvonne de Gennes also had very strict views on education. In Paris, and later in Villard-de-Lans, she did not send her son to school. “*I don’t remember having heard her criticise the education system. But she was so proud of her son, more than mothers usually are... Perhaps she thought that he needed a special education?*”, he speculated. Indeed, she quickly became aware of her son’s aptitudes, lively, curious, memorising everything with prodigious ease. At the age of three, he could express himself with astonishing maturity. “*I also know that I learned to read exceptionally early, because my mother constantly talked about it. But that’s nothing to boast about. It’s not a sign of profound ability. It’s a bit like people who can perform huge calculations in their head*”, he commented. In any case, he spent his childhood constantly being told that he was the best and his goal was to come up to the mark.

So Yvonne de Gennes undertook to teach him herself. In Paris, before the war, she had nevertheless sent him to the Hattemer school — “*very posh*”, according to Pierre-Gilles de Gennes — founded in the late 19th century by Rose Hattemer, “*a tutor in several aristocratic and upper middle-class families*”. The school’s former pupils included Prince Rainier of Monaco, Jean d’Ormesson and Jean-Paul Sartre, not to mention the physicist Jacques Friedel, who would play

a big role in Pierre-Gilles' life. From the age of six onwards, Pierre-Gilles attended a few hours of lessons every week at 52, rue de Londres, in the 8th arrondissement, but he did most of his work at home, under the guidance of his mother.

“She was very focused on my education. When she was around, lessons took up 100% of the time. She read me books aloud, for example the history of the Imperial Generals.” But the most important thing was for him to read himself, so that was his main activity. *“The other smart thing she did was to teach me English at the same time as French. Well, in fact, she didn't really teach me English, but she talked to me all the time in English and read me books in English, like Three Men in a Boat by Jerome K. Jerome, a very funny book that describes the adventures of three men rowing up the Thames. My grasp of English was a huge advantage to me in my work. When I went to Cambridge for the first time (as an engineer at CEA) in 1956, I felt completely at home. I found it just as easy to give lectures and talk to researchers as to understand their way of thinking.”*

However, as he approached his 10th birthday, his mother felt that it was time to look for a school. But instead of starting in the normal French class for his age, she thought that he should go straight into Year 5, with children two or three years older. She was turned down several times, in particular by the director of the Gap college, for whom it was inconceivable that a child who had never set foot in school, however gifted, could succeed in a higher class, but she refused to give up. In Barcelonnette, she went to see the principal, a Mr. Barrans, who suggested: *“Would you agree to him taking a little entry exam? Let's say, a French test and another in maths. Then we'll know where we stand.”* Although he answered the wrong question in one case (he described the mountains around Villard-de-Lans when the subject was: *“Describe your village square”*), the director accepted him into Year 5, impressed by his style. Pierre-Gilles was to experience his first taste of school, but his induction would not be without problems.

First School Term

In 1942, Barcelonnette was part of the free zone, under the control of the Italians. For this reason, the situation there was less tense than

elsewhere. The Jews enjoyed relative freedom, although they had to submit to a rollcall every midday in the main square. The town took in many refugees, and accommodation was scarce. Yvonne de Gennes had to make do with a small two-room apartment in the main street of Barcelonnette, Rue Manuel. The accommodation was modest: the room overlooking the street did service as Pierre-Gilles' bedroom, whilst the room with a mountain view acted as living room and bedroom for Yvonne de Gennes (she curtained off a corner for her sleeping space). A wood stove was used for heating and cooking. A small basin with a zinc jug stood in a corner for washing, and Pierre-Gilles and his mother took turns to fetch water from the house's communal tap. There was a wood parquet floor, on which Pierre-Gilles would amuse himself by making chalk drawings of the Napoleonic battles described by his mother. Yvonne de Gennes, used to more comfort, would grumble about the conditions, and made a scene when she discovered that the walls of her son's room were cracked and had pipes running behind them. *"She convinced herself that gas fumes were coming into the room and demanded that the owners repair them. She got in a state, as she was always 'unreasonably' worried about me, for example about the risks of tuberculosis"*, tutted Pierre-Gilles de Gennes. Similarly, when she learned that a polio epidemic had broken out in Bristol where, as a teenager, he was spending part of his holidays, she immediately made him leave the city, lambasting the host family for failing to notify her sooner.

In Barcelonnette, Pierre-Gilles was impatient to start school, but the early days were tough. *"I was a loner, and I didn't have the same habits as the local boys. I spent the first few months fighting, but it was character building"*, he suggested. He then joined the Gravier gang, rivals of the Peyrat gang, named after the town's two districts. At the age of 10, for the first time, he had schoolmates, and even one friend, Gilbert Signoret.

About the school, he recalls times in winter when he had to arrive early to light the stove in the class, before lessons, in order to thaw the ink in the china inkwells. *"I can't remember if I was a good student, I probably was, but the main thing I remember is that I loved learning."* He hung on every word spoken by his French teacher, Louis

Blanchard, “an archaeologist who before the war had worked on digs at Roman sites on the Black Sea”, living in exile in Barcelonnette. The teacher recognised the boy’s potential and became fond of him. He would play an important role in Pierre-Gilles’ life.

Yvonne de Gennes was not wrong about her son’s ability. Despite the three years difference in age, he got better grades than his classmates, except in maths. “*My mother knew nothing about mathematics. It was the only gap in the education she had given me. So she wisely arranged coaching for me with an elderly woman in Barcelonnette, Miss Lèbre.*” He quickly caught up and from then on his mother took no more interest in his grades, so insatiable was his hunger to learn. This was also the time when he began to draw, a skill in which he showed a certain talent. Yvonne de Gennes arranged drawing classes for him.

First Love

The rest of the time, he played like any other kid of his age. “*I spent hours playing marbles on Manuel Square, near an abandoned sand pile. I was pretty good*”, he boasted. “*From there, I would watch the Jewish rollcall, every day at noon.*” He also enjoyed firing his catapult at the glass insulators on the telegraph poles, and more rarely at the legs of rivals in the Peyrat gang. “*I was very proud of that catapult — a rubber band was not easy to get hold of then.*” In winter, all the children would ski together on Davin Field. They had to climb the slope on foot, skis over their shoulders, tie them to their boots with leather straps, ski down, then climb up again, and so on until the end of the afternoon. In summer, he loved going to the Chaup swimming pool, an old, more or less abandoned cement tank in the mountains. Every spring, it was filled by a small river that flowed nearby. Icy at the start of the season, the water would warm up as the weeks passed. Being stagnant, it would also be almost black by late summer. No one cared: it was a place where all the local youngsters went to play their favourite game of diving off a tree trunk that hung over the pool. Amongst the girls Pierre-Gilles met there was Martine Bour, who became a lifelong friend, and Dominique and Fanny, two nieces of Louis Blanchard, whom he would tease mercilessly by ducking

them under the water. But there was only one girl who really took his fancy, Marie-Thérèse Paret, “*very pretty, with her cute pigtails*”, he recalled. Alas, his sweetheart’s parents were not pleased to see this skinny lad, with his shapeless shorts and the catapult in his belt, hanging around their daughter. Deprived of her company, he had to make do with sending her love notes.

Yvonne de Gennes did not always give permission for him to spend his afternoons at the pool, but he would ignore the ban and swim in his underwear. “*Sometimes, it wouldn’t be dry by the time I got home, so I would put my shorts on over the top and cycle home. However, a big wet patch would make my disobedience all too obvious. I can still see my mother chasing me around the bed with an umbrella, and me trying to dodge the blows.*” The boy often found himself at odds with his mother. Although she exercised a steely authority, he was perfectly prepared to oppose her. “*Even back then, I didn’t necessarily do as I was told.*” For example, Pierre-Gilles would ignore the lights-out at nine rule and secretly read in bed, covering the bedside lamp with a sweater. One evening, the sweater caught fire. Nothing serious, but it earned him a severe ticking-off from his mother. He waited stoically for the storm to pass. It was an approach that he would adopt all his life in dealing with conflict.

One apparently minor incident began the little boy’s emancipation from his mother. On a walk one day, she and Pierre-Gilles came to a farm where a dog ran towards them, barking threateningly. Recalling his mother’s advice never to show fear when threatened by a dog, but to look it straight in the eyes, the lad continued to advance, staring it directly in the eye. However, after he had taken three steps, the beast sprang forward and bit him. It was a painful lesson that his mother’s rules could not necessarily be relied upon. From then on, he would seek to make up his own mind about things. What his mother lost in authority, he gained in critical thinking. “*I didn’t become independent simply to oppose my mother, but also because her upbringing itself encouraged me*”, stressed Pierre-Gilles de Gennes. “*I remember another episode that left a mark on me. I was around five or six. I had climbed a wall, not very high. When the time came to get down, I was afraid to jump. An old gentleman came up, a retired general type, and started*

to lecture me about how little boys should never be afraid. My mother didn't say anything, but I could sense that she agreed". He also had to look after himself when she left him once again to go to Paris, making arrangements for him to go to the teacher's family only at mealtimes.

When the Germans occupied the zone in September 1943, the atmosphere changed and the arrests began in Barcelonnette. The Jews took refuge in the mountains (this was the time when Yvonne de Gennes began to bring food to several families every week). In the spring of 1944, the resistance launched a major offensive and took control of the sector. There was jubilation in the town, with the inhabitants picking bouquets of flowers and decorating the streets. Pierre-Gilles joined a group at the edge of town, watching the partisans trying to dislodge the Germans from a manor house. *"The partisans surrounded them and the manor house was burned"*, he recalled. It was a scene that left a vivid impression on him. In the days that followed, large numbers of troops were parachuted in. *"We kids were very keen to help fold the parachutes"*, he remembered. Unfortunately, the Ubaye Valley where Barcelonnette was located was a strategic route between France and Italy and, three weeks later, the Germans sent a tank battalion to retake the town.

The reprisals were terrible. The Germans occupied the school. The resistance fighter Émile Donnadiou was arrested, tortured and then shot in the school yard. Louis Blanchard, the French teacher who was close to Pierre-Gilles, also a member of the resistance, had to go into hiding with his family. Every day, the Germans shot five people at random. *"One morning, I had a real fright. My mother wasn't there and I was going for lunch with the primary teacher's family. As I approached the school, two Germans saw me coming, pointed their machine guns at me and pushed me against a wall. I thought: "This is it: I'm going to be one of the five."* The soldiers held him against the wall like that, legs shaking, for long minutes. *"In fact, they were going to execute the five victims on the other side of the wall. They didn't want a little boy to witness the scene"*. He heard the shots and the soldiers let him go. Pierre-Gilles fled without further ado.

During these weeks of reprisals, the boy lived in fear, particularly the day when his mother, learning that the Germans had decided to

burn the resistance HQ, which was in fact the house of Gilbert Signoret's mother, went to the Kommandantur and enjoined them with raw courage: *"Don't burn the house, that poor woman and her child have nothing to do with it."* Back at home, Pierre-Gilles was convinced that she would be arrested and be selected as one of the five to be shot the next day. But in the end she came back safe and sound and the house was spared.

American Airmen

In August 1944, after the landing in Provence, the Americans arrived in Barcelonnette. Liberation had come. *"I was over the moon because, every morning, I would cycle over to see the Americans, who had set up camp around Barcelonnette. They were still shelling the forts occupied by the Germans. When they fired, I got out of the way."* He made friends and exchanged addresses with American soldiers from Brooklyn and New York, promising to write. He would lurk around the Piper Cubs, the U.S. Army's little spotter planes. Noticing his interest, one day the soldiers invited him up for a flight. Unable to believe his luck, the boy had his first taste of the air. *"Just a short spin, but I was very proud"*, he recalled.

The relationship with the American soldiers was tarnished by one unfortunate episode. Pierre-Gilles had got involved in trading. *"I used to find eggs in the surrounding farms and swap them with the soldiers — they were pleased to have fresh eggs — for rations or part rations, which contained chocolate and biscuits, things we dreamed about. We weren't starving, but we didn't have a lot to eat. In general, it used to work pretty well. But there was one occasion when it didn't..."* That day, no one wanted to do business with him and he found himself stuck with his eggs. The temptation was too strong, and he tried to steal a ration pack, but got caught. He was deeply ashamed, but a kindly soldier stepped in and agreed to make a trade, and he was let off.

Barcelonnette was free and it was a time of rejoicing, but also for a settling of accounts. The FTP (resistance fighters) would hunt down collaborators, beat the men up in the street and shave the heads of the women and put them on display. Pierre-Gilles was

shocked that the heroes of the Resistance should behave so cruelly. He talked about it to Louis Blanchard who, without condoning them, tried to explain their actions, but the boy was not prepared to listen. This sense of rebellion coloured his emerging political awareness, and was reinforced by another episode in 1946. *“My parents, who were so involved in the 14-18 war, were deeply shocked by the 1939 defeat. As a result, I thought that Paul Reynaud was useless, and was convinced that he would never be seen again after his contribution to the disaster; his failure to organise a defence. I was naive. After the war, he re-emerged, managing to get elected as an MP. As a result, I became very mistrustful of politicians and speeches. I had the impression that they were a house of cards and I was not entirely wrong.”* All his life, he would be wary of politicians in general and of the communists in particular, whose ideas, however praiseworthy, could provide a cover for dubious practices, as the FTP showed. At the time of the mass post-war student political movements, particularly in favour of the Communist Party, he would deliberately remain at arm’s length from the militants.

Return to Paris

Yvonne de Gennes closely followed every step of the progress of the Liberation forces. In September 1944, as soon as she learnt that the route from Barcelonnette to Paris was open, she decided to return. She packed their bags quickly so that Pierre-Gilles would be back at his desk at the beginning of the school year in October. She found a car, which dropped them off on the outskirts of Lyon. The city had just been liberated, and Yvonne de Gennes and her son crossed it on foot. *“There were still corpses in the streets. Many of the bridges had been destroyed and we couldn’t get through by car. We used a railway bridge that had been dynamited, but not entirely destroyed. It was tilted at a 45 degree angle. I can still see us with our suitcases, waiting to cross...”* There were many refugees heading home like them, and they had to take turns using the bridge. Certain sections were dangerous. Pierre-Gilles had to fend for himself, while his mother walked in front of him without batting an eyelid. The rest of their journey passed without incident.

Yvonne de Gennes was happy to return to the comfort of her apartment and her social life in Paris. Pierre-Gilles went into Class 3 at lycée Claude Bernard in October 1944, but the classes were transferred to lycée Janson de Sailly during renovation of the buildings at lycée Claude Bernard, which had been occupied by the Germans during the war. Once a week, he had lunch with his aunt Edmée Colomb de Donnant, who lived in a cosy apartment on Avenue Victor Hugo, not far from the lycée. He would chat easily in his aunt's lounge, and charm her guests with his wit and general knowledge. In this time, he re-established contact with the family he had not seen for five years. For example, he saw Lucien de Gennes, an eminent professor of medicine, who lived in grand style with his wife, Renata de Gennes, reputedly one of the most beautiful women in Paris. He went back to see his family in Switzerland and was delighted by the nylon stockings worn by his young cousins. A few weeks before, he had been splashing around in the streams of the Ubaye Valley, and here he was now, mixing casually with the cream of society.

In Paris, nevertheless, day-to-day life was still hard. *"It was still a wartime atmosphere. At night, we heard shots, guards firing at people who had come to steal coal from barges travelling up the Seine"*, he recalled. However, the insecurity was nothing like what he had experienced in Barcelonnette. Rationing was still in place, and meals were frugal. Already tall, Pierre-Gilles was almost thin. Little by little, though, life began to improve. On 8 May 1945, the German forces surrendered. At this announcement, Pierre-Gilles persuaded his mother to go to the Champs-Élysées. The street was awash with people. *"I remember an immense crowd and a sense of extraordinary joy"*, smiled Pierre-Gilles de Gennes. The war was truly over.

During his year in Class 3, the boy got very good results, good enough to go into Class 2. However, his mother thought that at 13 he was too young for the lycée. She took advice and reached a decision: Pierre-Gilles would take a "sabbatical year" and would only move on to Class 2 at the beginning of the next school year. *"It was a very bold move on her part, not at all the way most parents think"*, he

commented. In the meantime, she took her son and Gilbert Signoret, his friend from Barcelonnette, on holiday to the very chic spa resort of Perros-Guirec, in Brittany. At the seaside, the two boys could at last experience the carefree fun that they had missed as children of the war.