

Chapter 1

Bruno “Burl” Touschek (1921–1978)



Francis Touschek

I was kindly invited to give a small contribution to this symposium which I gladly accepted, fully aware I was surrounded by the gotha of the physics world. So, I spent a long time brooding over what might be appropriate, my first instinct was to denounce the ugliness and brutality my father had to endure throughout his whole life. I finally decided on a softer approach, impromptu and recount some of the more amusing moments I was lucky enough to share and enjoy with him. He was an extraordinary man, with a vicious sense of humour. I have never met anyone quite like him.

In the inner circle of his family and friends, my father was known as **Burl**. He was born an only child, into a modest family, father Franz (after whom I was named) a retired officer of the Austrian army and mother, Camilla (née Weltmann) a talented artist who was struck by the Spanish flu and eventually died of it in 1931 when **Burl** was only 10. This had a huge impact on his future life and drew him closer and closer to his father.

The short, brilliant and tragic life of **Burl** can be broken down simply, into five stages. His childhood in Vienna, the war years, his time in Glasgow, Italy and finally his short spell in Geneva.

He was born in Vienna in 1921, in a city which was a cradle of culture (despite the ravages and consequences of the first world war). Camilla, his mother came from a very interesting Jewish family, with very close connections to the art and cultural world of the time. Klimt, Schiele, Kokoschka, Kandinski, Gropius, Kraus and Mahler (and his very interesting wife, Alma) to mention a few, were indeed known acquaintances to the Weltmann family. It is in this extraordinary environment that my father grew up. He must have gone through, what I refer to as the cultural osmosis of his time. He not only soaked the knowledge but most of all the spirit of

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his surroundings. He rapidly learned there were no borders to knowledge and thrived in this awareness.

I am not going to dwell into his biography, Dr. Pancheri and Dr. Bonolis will do this in much greater detail and with greater ability than I but, there are a few aspects that I did share with my father and which are beyond the boundaries of biographies or biographers. I am obviously referring to the period he spent in Italy. My brother (Steven) and I, were born in Rome, possibly during the happiest moments of his life. He came to Rome in the early '50s, met my mother (Elsbeth, a brilliant artist) in Naples. They got married in Glasgow right next to the well known Ballantine whisky distillery (there is a sense of foreboding). They then settled in Rome, I was born in 1958 and my brother Steven in 1961. The first 15 years in Italy must have been sheer bliss for both of them. A beautiful couple with a brilliant future.

Sadly, this moment came to a sudden end towards the end of the 60s. Two episodes were to change his life dramatically. The first event was the “caso Ippolito”, the second the global student revolution which, in Italy turned into a nasty political affair. One day he came home, with a photograph of a “graffiti” on the walls of the faculty of physics, portraying the phrase ‘Touschek=nazista’. After what he had endured during the war, this was the final straw. He started drinking heavily, he detached himself from the projects he was involved in. He sought employment at the University of Vienna. I went with him for his interview. We were met by Walter Thirring just outside the faculty of physics. I was left outside the hall where the interview was to take place, my father entered the room and came out a few minutes later, ashen. One of the interviewers was his torturer in the concentration camp where he was interned during the war.

Burl was never the same again. We returned to Italy with a sense of gloom, my father took to drinking even more heavily and after a series of hepatic comas died in 1978 (same year curiously, a few months apart, as Aldo Moro).

This brief synopsis is a gentle introduction to the life of Bruno Touschek and during this Symposium the details of his scientific life and his contribution to the world of physics will be better described by members of a much higher standard than myself.

There are though, quite a few amusing moments I recall, all of which took place during the “happy” years. Our flat in Rome was a Mecca for many friends and colleagues, I was privileged to meet some extraordinary people. I recall one instance, we had just moved into a new flat, Jerry O’Neill came to visit us, escorted by CIA agents together with Gersh Budker escorted by KGB agents. It was a surreal evening. After a few drinks the atmosphere became quite merry. My father noticed a hole in the ceiling (about the size of a 100 lira coin) and the discussion among the three rapidly became quite idiotic (or at least in my mind). They spent a long time discussing the possible solution to close the offending hole. Then one of them, I can’t remember who, came up with the idea of putting a post stamp adequately moistened on a coin and then proceeded to throw in the general direction of the hole in the hope that the stamp would remain attached to the ceiling sealing the hole. This exercise went on for hours, becoming rowdier and rowdier. My mother ushered my brother and myself rapidly to our room before things got out of hand. Being a pragmatic, rational

and logical person I was extremely perplexed and curious to see the result of all the combined efforts. So, early next morning I went into the sitting room and the hole was still there. For years I was haunted by the thought, "why did they not use a ladder"? I was not a physicist!

Professor Palma, of the University of Catania, invited my father to give a talk on AdA. We stayed at the hotel Jolly in Catania. One evening, in the hotel foyer, a "bunch" of professors, including my father, started assembling mini rockets made out of the local Italian matches, the "cerini". The exercise involved rapping the tip of the matches with silver foil (in this case using the rapping of a packet of cigarettes). You then splayed the matches in a vague semblance of a tripod and then lit the heads of the matches and these lethal objects would then start flying across the hotel foyer to the utter dismay of staff and guests. Inevitably, and I am convinced it was my fathers rocket that hit a curtain and set fire to it. As you can imagine, total chaos ensued. By some quirk of fate, 30 or so years later I was to stay in the very same hotel. When I checked in, I prayed none of the staff would recognize me as the son of the man who set the hotel ablaze!

The Touschek family always loved the sea, whenever we could we enjoyed the beautiful coastlines of Italy and not only. Finally, the day came that my father decided to acquire a boat. Heaven forbid. He bought a 15 foot "pilotina" and at this stage Prof. Touschek rose to the self appointed rank of admiral. Our life became hell overnight. As the boat was being assembled, Bruno decided he wanted a toilet on board, not a marine toilet but a proper ceramic one with all the amenities including a hand pump needed to clear the offending remains. Now you have to realize the very limited space that was available in the cabin, roughly two and a half square meters and the toilet stood proudly as a throne taking up much of the space. The builder suggested sheepishly, that it should be covered so as not to be seen during normal hours. My father rapidly agreed and the builder concocted something that looked eerily like a guillotine and turned out to be just that. In order to use the shameful object, you had to lift the cover, make sure you hooked it carefully or else, as you were busy pursuing your ablution the lid could swiftly decapitate you. Well, having achieved his lifelong dream of having a toilet on board a tiny boat, we set sail followed by the raucous laughter of the builder and the casual passerby. It was humiliating. The boat turned out to be bow heavy due to the ceramic wc. So, when we turned on the outboard engine, the propeller was halfway out of the water barely pushing the boat forward. Now any sensible person would at this stage have eliminated the offending object. Not my father, he persevered in his criminal intent and decided against all logic to extend the drive shaft of the engine by about ten inches, this way the propeller was fully submerged. The maiden voyage was something out of a play of Max Frisch and the theatre of the absurd. Admiral Touschek and his crew sets sail for the Argentario from the harbour of Civitavecchia a distance of roughly 30 nautical miles. Fully equipped making the boat even more bow heavy. We leave the harbour in a cloud of shame whilst my father stood proudly at the helm of what he felt was the sister ship of the Queen Elizabeth cruise ship. And off we go with a boat that defeated all standards of nautical engineering. Ten hours later we reach Porto Ercole at sunset, after a gruelling 10 h of navigation which had taken its toll

on the Admiral, use of the toilet on board proved to be impossible during navigation and at this stage my mother was definitely feeling uncomfortable and commenting on the mental instability of her husband, the Admiral. At this stage, the Touschek crew was faced with another gruelling prospect. Berthing the boat in the harbour of Porto Ercole. You have to understand my father was still convinced he had the sister ship of the Queen Elizabeth and would not take berth next to the other boats, he opted for a space in between two oil tankers. After having successfully moored the boat, my father realised there was a vertical wall nearly twenty feet high, how on earth would we get off the boat. Worry not, my father had a solution, by means of a series of pulleys..... Well, I leave you to draw the inevitable conclusion. After this experience, my brother and I were completely put off by the world of physics. Logic and good common sense eluded the mind of the Admiral.

My memories of Frascati were also happy ones. My brother and I enjoyed the hustle and bustle of the building of AdA and Adone. We frequently played in the building that was to house Adone. There was an atmosphere of excitement that permeated the whole establishment. **Burl** had a great gift, he was a catalyst, people were drawn to him and as children we enjoyed the limelight reflected on us. During lunch we would take the short drive to lake Albano and enjoyed swimming and snorkelling for a few hours. It was a blissful childhood until it lasted.

In his final years, I enjoyed a brief spell with him, when he spent more and more of his time at the Accademia dei Lincei. He came up with the brilliant idea of setting up "lectio magistralis" recordings. In the late 1970s video recordings were rare and expensive. The Accademia provided us with sufficient funds to buy video recording equipment. We set up the camera in one of the lecture halls of the Accademia and I recorded my father giving a brilliant lecture followed a few days later by Paul Dirac and many others thereafter. There are over a hundred recordings available to the general public.

I then returned to the UK to pursue my own studies in the meantime he moved to Geneva. He died a few months later. Aged 57.

My mother and I went to collect his remains in Innsbruck. They could not find his body. Together with an orderly we found his remains on the floor of the cellar of the hospital. And then began the ordeal of trying to obtain a pension from the Italian government. It took eleven years to obtain to 262 euro a month for my mother.

This short introduction of mine is dedicated to the extraordinary figure of my mother Elspeth Jennifer Yonge in Touschek who stood by his side in good and bad health and my dear brother who died prematurely, aged 48 of the same ailment that killed my father.

A very special thank you goes to Prof. Luciano Maiani who made all this possible and to two special ladies for whom I have a great deal of respect, Dr. Lia Pancheri (a former student of my fathers) and Dr. Luisa Bonolis whose kindness has become a rare commodity.

To conclude, my gratitude to all the organizing committee who have helped me metabolise the premature loss of my father.

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