SERGIO SECCO

Sile S.p.a.

The Leader in the

Italian Heating Marketplace

Preface by Andrea Zanzotto

Translation: Richard Davison

Preface

The booklet presented here by Sergio Secco is of great interest since, while relating the history of his factory, he succeeds in giving us a picture of the general history of industry in the Veneto and elsewhere.
He uses the medium of autobiography to highlight the various significant moments, the highs and lows of society as a whole from the post-war period until today.
But for the reader it is as if a new form of knowledge has opened up in front of him: significant moments appear as magic revelations. The transition from the archaic boilers to the complex apparatus is guided by a clarity of vision which comes from the ability to convert new ideas into actual products, allowing the reader to take part in a whole series of intellectual adventures. One would never imagine how many tissues of facts interweave from different fields of knowledge, attracting renewed admiration for the human capacity to act under the input of research connected to the "drama of heating". Man has fought, since time immemorial, to make his environment inhabitable, and *Sile* provided a truly inspiring image for post-war development in the heating sector. It could be said that each step taken was the product of increasingly technical research. The problems connected to the "saving" of fuel and energy were quickly identified and solutions found which were, time after time, upset by the malign powers of the market. *Sile* managed to compete on a reasonable level by activating rapid changes which kept the boiler companies rightly alarmed, as they were aware of being both in the whirl of the market and at the same time responsible for these very changes.
While pure economism implied the idea of infinite development leading to relocation, it had not foreseen the enormous problems of displacement from the original areas where the development had taken place. This led to the loss of the cultural advantage of physical contact between labour and management, which was necessary to alleviate the inevitable conflicts.

The Marxist economy, which had degenerated into monstrous, though marginal* tyranny, left many questions unanswered. It is, therefore, essential to find a complete remedy to all the problems regarding the conservation of everything that is worthwhile in the socialist Left, and to define the roles of the managers and all the other component parts of the world of production. There is no point in deluding oneself that it will be possible to find quick solutions to these problems. It is, however, worth noting that the idea of democracy, the unalienable basis for human coexistence, may still be able to provide increasingly profound directions for the good of society as a whole.

Therefore, it only remains for us to realise that the residual *humanitas* is evaporating in the gigantism of which the best examples are provided by China and India, etc.. It seems that it is not Man who builds on a human scale. Rather, in the space of a few short years, it is the ancient kingdoms of misery who have, with their boundless, though necessary, strides, advanced to take up the top positions in the world. It is this very gigantism, now at a level of evident self-contradiction, that may mean the last hope has been lost for slow, balanced development - exactly the kind of development for which *Sile,* unobtrusively, continues to be a shining example.

Andrea Zanzotto

This story is for all those who are curious to know how **Sile** *was born*

It is dedicated to my wife, my sons, my grandchildren and my sister

The History of the *Sile Caldaie* Boiler Factory

Which Is Also My Story

Sergio Secco

The story begins on 24th March 1935. The house where I was born stood opposite the Church of St. Nicholas and the Bishop's Seminary in Treviso. The Secco family lived at No. 68: Grandfather Luigi, Grandmother Erminia and five children (three sons and two daughters). They were honest craftsmen dedicated to their work. The family already consisted of Francesco, son of Aldo, and Laura, daughter of my father Primo.

Grandfather Luigi had moved here from Venzone in the province of Friuli and had begun working as a blacksmith in a small workshop at No.26, *Via Collalto* in Treviso, where the restaurant "Alfredo" stands today. Here he worked wrought iron. With great foresight, he guided his sons into the trades: Primo, who was the eldest, became a plumber; Aldo, a mechanic; Tati, the youngest, became an electrician. He had basically marked out the trail for his sons, grandchildren and great grandchildren to follow.

The patriarchal family was composed of thirteen members and directed by Grandmother Erminia with great energy and self-sacrifice. This was the environment I was born into; they gave me the name Sergio.

My father and Uncle Aldo (Tati had died by this time) worked in the smithy, together with many workers from the villages around Treviso. We children used to go to play with the workers, who amused themselves by picking us up, dirtying our smocks with their oily hands. When we got back home we would be given a real scolding by our mothers, who would put us in the bathtub where Laura, the eldest of the sisters, washed us.

In 1935 we were right in the middle of the Fascist period and if Dad and Uncle Aldo wanted to have iron to work they had to go to the Fascist rallies on Sundays dressed in uniform and boots. Whenever Dad returned home he was furious : he sat on a chair and Mum struggled to take off his boots, making us children laugh. I really didn't have a clue about what was going on in the world.

I remember that we went to kindergarten with a white smock embroidered with a butterfly. Miss Rocchetti taught us to take our first steps in life. In summer, outside the school gates, there was the ice-cream cart which bore the name "Da Ico": Mum bought us a small ice-cream shaped like a little boat with ten "schei"* (the local dialect term for "lire").

Once Miss Rocchetti took all of us children dressed as "sons of the she-wolf" to the Fascist rally in the Cathedral Square. On our chests we wore a badge in the shape of an "M", which stood for Mussolini. That day Miss Rocchetti took me in her arms and presented me to the provincial party

secretary; I still have the photograph today. When I returned home I couldn't understand why everyone was making such a fuss of me.

In the meantime the war carried on and Uncle Aldo was considered the family genius because he had started producing vegetable slicing machines which he would sell to companies which dried them and packaged them in little sacks. They were then used to prepare the meals for the troops at the Front and for the starving population.

My father was a plumber: he fitted bathrooms in the houses of the wealthy and made the first heating plants which worked with cast iron coal-fuelled boilers. These were the first *Ideal Standard*, *Buderus* and *Necchi* boilers.

In 1938, Grandfather Luigi passed on to his children a lifetime's riches. My father's part consisted of money with which he bought the Treviso Aqueduct in *Via Lanceri di Novara*, where he moved the old workshop which had been in *Vicolo Risorgimento*. This was the start of a new life for the four of us – Dad, Mum, my sister and myself – a new life outside the patriarchal family.

Italy joined the war which, according to Mussolini, would only last a few months. Only a few Italians would die and the spoils of victory would then be divided with Germany. Things turned out rather differently. Dad had to

endure many sacrifices and run many risks to guarantee the distribution of water to the city.

The persecution of the Jews had begun in Germany with all the acts of brutality which it entailed. Race Laws were proclaimed in Italy, hitting the Jews especially. Even today, there is still a toothbrush and brush factory opposite the Aqueduct whose owners were the Krülls, of Jewish origin. Terrorised at the idea of being captured by the Nazi-Fascist hordes, the Krülls asked Dad if he could keep their extremely valuable furniture in our house. It was all brought to the house, including an antique collection of chairs, tables and dressers, where it remained until the end of the war. Mr Krüll expressed his gratitude by presenting us with the precious wooden staircase for the new house which Dad was building.

In the gardens of the Aqueduct there was a rather hastily- and badly-built air-raid shelter which served as a refuge during the Anglo-American bombardments. I recall with great clarity the famous bombardment of April 7th 1944: the Germans, after the Anzio landing, had barricaded themselves in the so-called fortified Gothic Line which divided Italy from the Adriatic sea to the Ligurian sea. The Anglo-American forces were aiming to conquer Montecassino, a battle which cost many lives and resulted in the destruction of the Benedictine Monastery. In order to break through the Line, they adopted the strategy of systematic ally

destroying the German supply lines. In the same way, the Treviso railway network, of considerable importance because of its connections with Germany, was also destroyed. At midday on 7th April 1944, an enormous number of bombers flew over Treviso at great altitude and carpet-bombed the station and the whole city. In the space of ten minutes there were two thousand victims, houses and palaces destroyed, countless examples of architectural beauty lost forever.

My parents and I found refuge in the shelter, together with many others: children, mothers and elderly people, who shouted and cried. Suddenly a bomb exploded near the shelter, causing a blast of warm air to enter which hit us and scared everyone. The bombardment continued for several minutes, before suddenly stopping. It was only then that we left the shelter. There was a great silence; the sky had become black and everyone looked up in astonishment. Dad went out dressed in blue with a few workers and a cart. He returned after many hours, perhaps days, and it was only later that I learnt that they had gone to bury hundreds of bodies in the cemetery of St. Lazarus.

After the 7th April bombardment , the great gauge which measured the pressure in the water network recorded zero: the bombardment had caused considerable damage to the network and water leaked out of the pipes without reaching the houses. The German command which

controlled the city had allowed father a car in order to guarantee the public water service. It was a *Fiat Balilla* with a gas generator placed in the rear which distilled the gas produced by the combustion of charcoal: there was obviously no petrol. I remember during the last months of the Occupation, before the Anglo-American Alliance sent them packing, the Germans had mounted the gas generators in their military vehicles. When even the charcoal supplies ran out, they began cutting down the trees around the town in order to make cubes which were more suitable for distillation in place of charcoal. It was a real ecological disaster for the town. I recall a friar with a horse and cart going around breaking up the roots of the felled trees with small charges of dynamite, before loading them onto his cart and selling them to the locals as fuel for the wood ranges and for heating during the cold winters. As well as sawing the trees, the Germans took away anything that was made of iron or other metals, like bronze, copper, tin, etc. . They even stole the bell from Treviso's Civic Tower, lowering it with ropes before taking it to be smelted down in order to recover the bronze.

At the end of the war, a group of determined citizens, after collecting money from the local people, had a bell cast at the foundry in nearby Vittorio Veneto, from where it was then brought to Treviso. It remained hanging for several months on a scaffold frame at the Aqueduct in *Via Lancieri di Novara*, where we kids went to ring it with hammers. One day

it was taken to the Civic Tower and hoisted up to be housed in the belfry, where its chimes still mark the time for the town today. It was called “La Gioiosa”. It was my father who organized this commendable action and his name is engraved on the bell. I have always hoped that people would remember everything that my father did, but that hasn’t been the case, which saddens me.

When Dad left for Dalmine in the *Balilla* to buy the pipes needed to repair the water network which had been destroyed in the bombardments, he loaded the car with sacks of charcoal and several tyres. The tyres were made from synthetic material and broke very easily. I used to get up at five a.m. to turn on the gas generator so that the car was ready for him. Travelling at an average speed of 30 kilometres per hour, he would get to Dalmine, load the material and return home. The whole operation could even take several days, as he often had to wait in line for his turn. He would get back home having used up all the charcoal and with all the tyres broken. Once, he returned home with the front tyres covered in straw. After a few trips, and the hard work of the workers, the water started to flow in the houses once more.

We kids used to play war games and engaged in furious battles with pea-shooters. For ammunition , we used “pomee”, the berries of the local trees.

While we played, the real war carried on. The Germans felt the pressure of the Anglo-American Alliance: together with the Fascists, they became increasingly cruel, taking revenge not only on the Partisans they managed to capture, but also on the local population. They routinely murdered innocent, defenceless people.

During the bombardment of the 7th April, several bombs, as well as hitting a bomb shelter, hit the "Stella d'Ora" Hotel, where Piazza Borsa lies today. They all died, both the guests and the family of the owner, who survived only because he had gone to get wine from the hotel cellar. Lamberto, a friend of my father's, wore a badge on his chest with nine stars, in memory of the members of his family who had been killed. One day, he asked my father's permission to park two of the cars which had belonged to victims of the bombardment in the Aqueduct's warehouses. He agreed immediately and the cars, a *Fiat 1100* and a *Lancia Aprilia* convertible, were put under a roof within the Aqueduct precinct . We kids were always playing around inside the cars.

After the 7th April bombardment, we were evacuated and went to live in the Vicarage of the Parish of Fontane with the priest, Don Angelo and his housekeeper, Carlina.

In the countryside life was great: we kids played joyfully in the fields, curious to explore new places. The irrigation canals, which drew water

from the *Canale della Vittoria*, which siphoned off water from the River Piave, had a system of locks which regulated the distribution. One summer I, together with some friends, who were children of local farmers, went to swim in one of the canals stark naked. A farmer, either the owner or manager of the fields, seeing us swim, stole our clothes, which we had left on the banks of the canal. When I got back home I got a good hiding from my Mum.

The shrapnel from the anti-aircraft artillery fell to earth after the bombs exploded. One day when I was standing on the Vicarage doorstep with the priest's housekeeper, we heard a hissing sound coming closer and closer, so we took a step forward and entered the hallway. Right at that moment a piece of shrapnel struck the ground, missing me by a few centimetres; if it had hit me it would have gone straight through my head, killing me instantly.

From Fontane it was possible to see and hear the Anglo-American bombers as they arrived from their bases in Apuglia. Flying back up the Adriatic, they flew over the River Piave, headed for the German cities. They were great clusters of planes which made a dull, heavy noise on their way North because they were loaded with bombs, while on their way back the noise was lighter because they had shedded their load. We knew which direction they were heading in by the noise alone, even

though they flew at considerable altitude. These were the famous flying fortresses: they could fly at an altitude of 10,000 metres without a fighter plane being able to attack them. The anti-aircraft cannons on the Piave fired frequently, tracing black tufts of smoke in the sky as the shells exploded. Strips of silver foil were fired to confuse the German radar and we kids used to go and look for them in the fields as they fell; it was great fun. I remember seeing a flying fortress being shot down once: it descended in broad circles until it finished up behind the church in Arcade. People said that the crew had survived by launching themselves with parachutes, which were very sought after because they were made of silk and could be used for making fine shirts.

One evening at the end of April a group of young German soldiers arrived in the field before the vicarage with pigs and *chianino* cows from Tuscany which they had probably stolen from the farmers. They were fleeing towards Germany and were stopping overnight before setting off early the following morning. When day broke a partisan armed with a machine gun was waiting for them, taking care of the situation from underneath the tree in the centre of the square in Fontane. Mum immediately realized that, if the Germans were fleeing, the Americans must be coming.

For me it was a great spectacle to see them going by along the *Strada Alemagna*: long columns of military vehicles, huge trucks, tanks, cannons

and jeeps. The coloured soldiers, while chewing on something strange ("ciungan"), threw us chocolates and sweets. Everyone cheered, forgetting that a year earlier it had been the Americans who had caused the death of 2,000 people in Treviso alone.

At last the war finished. In those days there was a headlong flow of Italian soldiers who were running away from the army in order to go back home. One of them, called Lorenzo, called on our house to ask Dad for a civilian shirt, which he was given, saying goodbye to everyone as he set off home. He lived in Sicily and for 30 years his father sent us a crate of oranges to thank us for helping his son.

In the meantime, we returned home from the evacuation. Dad started to earn a few lire by selling water and building wood boilers for bathrooms.

It was Professor Lucchetta, a painter from Treviso, who designed the *Sile* logo – the one which still today identifies the family business. In the same year, 1945, Dad and a few others founded the Treviso Association of Entrepreneurs.

In the 7th April bombardment, which also destroyed the old factory, a bomb "embedded itself" above the altar of the Madonna in the Church of St. Nicholas without exploding. It was hailed as a miracle and everyone went to the Church before the altar of the Madonna to pray and ask for forgiveness. There was a great need for forgiveness…

The first thing which the Municipality of Treviso did (at the time I didn't understand whether they were Left or Right Wing) was to bring the Aqueduct under municipal ownership. It was daylight robbery: with the money which he eventually received after two years, Dad rebuilt the old factory in *Vicolo Risorgimento* (now *Via Garbizza*). Shortly afterwards, we moved to the first floor of the building where the factory stood. Luckily, Dad hadn't given up plumbing or building wood-burning water heaters.

I would like to relate an episode which took place before we left the Aqueduct. One morning, a red Beetle arrived in the square. The driver and one of our workers got out with machine guns pointed and ordered my father to hand over the cars parked under the roof, saying that the order came from the Partisans. They were the so-called last-minute Partisans who just went around stealing. Dad handed over a car and they left him a receipt, promising compensation. I've never seen them since!

After Primary School, I attended Middle School at the *Collegio Pio X* in Treviso. I sat next to Giuseppe Caron, who I still meet up with. Although I was a disaster at Latin, I never had to repeat a year, perhaps partly because Professor Martini had seen other qualities in me.

Dad had gone back to being a plumber, to building wood-burning water heaters and to making the first electric ones. My sister Laura, who was older than me, helped Dad in the office. Like all Dads, mine had great

ambitions for me: he wanted me to become an experiments engineer, which at that time was a highly sought- after qualification. He therefore enrolled me at the Industrial Polytechnic in Padua, as there wasn't one in Treviso. I had to set off every morning at seven on the bus from the *Santi Quaranta* Gate in Treviso in order to arrive at *Eremitani* Square in Padua, then walk to the school in *Via Belzoni*. I got back home at 8 in the evening tired and depressed. The first year didn't prove fruitful: I failed in four subjects.

I told Dad that if he wanted to persist in sending me to Padua he would end up losing a son. The family realized the mistake they had made and enrolled me to study Surveying in the first year at the *Istituto Riccati* in Treviso, where I thoroughly enjoyed my five years. There were only thirteen students - friends who got on really well together. I sat next to Carlo Bellè, who was to become a great engineer in Canada. I was very sad to hear of his recent death.

I remember the pleasure it gave us to listen to our teachers, particularly Professor Mario Prevedello, to whom I am forever grateful for teaching me so much about life. In the fourth year my mind broadened and I started to think in a new, constructive way. I qualified as a surveyor with top marks. During the summer holidays I took an interest in the building of water heaters and the machines used in their construction.

At the factory, work lasted ten hours a day, including Saturdays, plus four hours on Sundays. *Vicolo Risorgimento* had become part of the factory.

We sold unpressurised copper wood-burning water heaters . One day my Dad had delivered a load of water heaters of this type to the *Innerhofer* firm in Brunick. The owner of the same name asked him if we were able to make pressurised water heaters instead in order to enable him to be directly connected to the Aqueduct network. When Dad got back home, he asked me if I was capable of designing a water heater of this kind. I immediately set about building a prototype which the client soon approved. It was my first project and its success was extraordinary. I later added an electrical resistance: the wood-burning water heater became both wood- and electricity-powered. I then added an internal exchanger so that water could be heated with the heating boiler, too. The product took off all over Italy, to the extent that competitors soon emerged and we were no longer able to satisfy the demand on our own. There are still companies producing this type of water heater even today.

Our clients were plumbing material wholesalers: *Simonetti*, *Bozzola* in Padua, *Maruffa* in Vicenza, the three *Bizzarini* brothers in Brescia, Venice and Bolzen, *Afis* in Brescia, *Perani* in Mestre and many others in central and southern Italy.

When they saw the truck belonging to the clients from Calabria, who lived at San Giovanni in Fiore, in the Province of Cosenza, loaded up with wood-burning water heaters, the kids came down from the hills to the roadside and climbed onto the truck, hanging onto it from all sides. The truck then made its celebratory entrance into the centre of the village, where all the clients were waiting. Each of them went off with his own water heater, paying the driver for it directly.

In 1955, I left school as a qualified surveyor. I was by now dedicating myself to the factory full time. The market demand for wood-burning and electric water heaters was now too great for production to satisfy, so we began to think about enlarging the factory by building outside the town.

In 1956, Dad and I had started eyeing up a series of warehouses including the one owned by the *Brunelli* company at Santa Maria della Rovere, an area just a kilometre to the north of the town walls, and the one owned by the *OMT* yard in Casier, a few kilometres south, which we preferred. Originally, the site used to build small boats which were launched on the River Sile to reach Venice by river.

The warehouses were in bad repair and the village of Casier was incredibly poor. Unemployment was terribly high and there was a feeling of great unrest amongst the local people on account of a series of brutal acts carried out during the War by Fascists and Communists alike. The

shipbuilding yards had gone bankrupt and the bankruptcy trustee was Maestrello, a lawyer. When we went to see him he asked us for the sum of seven million lire for part of the yards bordering the *Jesolana* road. We bought the second lot for sale, called “Isola”, at a later date.

Dad didn’t have any money because he had spent the entire sum received from the Municipality for the sale of the Aqueduct on building the house in *Vicolo Risorgimento* and financing the production of water heaters. So he decided to ask one of our clients from Trento, Filippo Zambiasi, for a loan. Zambiasi gave us an advance of 1 million lire as a deposit for water heaters and Dad took the cheque and put it under the car mat, for fear of being stopped and robbed. He took the million lire to Maestrello and concluded the purchase by agreeing to pay the outstanding amount in instalments.

At the height of the post-wartime rebuilding operation, blocks of flats were being built in the centre of Treviso which required heating systems. This set off a new demand for boilers, in addition to that for water heaters, so we started making small coal-fuelled boilers. 1956 was the year of the Winter Olympics in Cortina and the event was accompanied by a building surge which increased our sales in the Province of Belluno, too.

We received an order for 350 small boilers for installation in the houses set aside for employees of the *SADE* electricity company, which was

building homes in the areas around the electricity power stations under construction at that time. It was this important order, made by a company with a high credit rating, that convinced Dad and I that we would be able to honour the outstanding debt.

We charged the firm of *Agostini e Pelliciari* with the task of rebuilding the warehouse site along the *Jesolana* road. So it was, that on 19th March 1957, with hand-pushed carts, an old *Fiat OM Iupetto* van and boundless enthusiasm , we moved the company headquarters to Casier.

Together with Bruno Facchini we designed a huge boiler which was called “Marina”, because of the series of pipes of which it was composed. It was really a “half” boiler because it needed a brick support to be built at the installation stage, as the fuel at the time was coal. A cast iron grill, where the coal burnt, rested on the top of the little brick wall. It was not long before the first heavy oil for heating started to arrive. The boilers were converted to the new fuel by the addition of a low-pressure burner. It was necessary to pre-heat the fuel oil electrically, given its high density and high sulphur content.

The first specimen was delivered to the *Agostini e Pelliciari* company as settlement for the warehouse rebuilding work and marked the beginning of the production of ever larger boilers. Our only competitor in that period was the *Biasi* company in Verona.

Later came the era of the *Riello* company, managed by the engineer Pilade Riello, which made a killing, given the low level of competition on the market. Over time the situation changed with the arrival of new competitors for both boilers and burners.

Dad had agreed to take on the task of building the hydraulic and heating plant for the *Banca Cattolica del Veneto* in *Signori* Square in Treviso. The work also included the installation of two water- raising systems of 1,500 litres to provide water for the entire building. The design, building and installation of these were carried out entirely by us, despite our lack of previous experience in such plants. I was aware that a pump was needed which, by means of a complex hydraulic system, could be turned on and off by an automatic ignition system. I opted for a submerged pump which drew the water at a great depth. Every now and then it got stuck, leaving the Bank without any water. After racking my brains, I realized that the water-raising systems needed to take water in on the inside continuously in order for the cushion of air to remain constant. The intake of air was created by a special feeder which injected air every time the pump came on.

This first experience allowed me to learn from my mistakes and to design this type of plant with accessories included: it was the birth of the

complete water-raising system. Although it was an extremely simple idea, nobody had thought of it before.

In addition to tall blocks of flats in the town, hotels were being built, including ones in many seaside resorts where water shortage was solved with the very same complete water-raising systems.

The product's success enabled *Sile* to grow exponentially. We bought the pumps from *Marelli* in Milan and we used thousands of them. *Marelli*, in turn, bought the complete water-raising systems from us. I only stopped buying their pumps when I discovered that they were selling a plant which they had copied from ours: when I called on *Marelli* in Milan, I spoke plainly to the General Manager, telling him that we would no longer be buying their pumps.

So began our dealings with Mr. Goidanicic of the *Società Anonima Lombarda*, which produced licences for the German company *KSB*. I agreed terms for the purchase of their pumps on condition that they would never make plants like ours and the agreement lasted for many years.

A whole stack of competitors arrived subsequently and the market was divided up. *Sile* still builds these plants successfully today, forty years on.

In 1958, we decided to build a second large warehouse which would be especially equipped to produce water heaters, given the large number of sales all over Italy. The production of boilers and water-raising systems carried on in the old warehouse.

In a small warehouse in the part which still belonged to the original owners and which we named “Isola”, Mario Minute made heavy oil burners called “Anie”, in direct competition with the *Riello* company. The competition was also waged in the many advertising campaigns in the newspapers. We were afraid that a huge factory might emerge from that small warehouse on the “Isola”. A story at this juncture might help to explain how the situation evolved.

Just after the war had finished, *Cavaliere* Montini, who had a cast iron foundry in the village of Padernello, met Dad in *Signori* Square in Treviso and said to him in the local dialect: “Mr. Primo, what can I do with my foundry?”. Dad suggested that he produce cast iron bathtubs and this is how the *Poppea* bathtub factory came into being. The great demand for bathtubs through the construction boom was at the bottom of the Company’s success.

After the death of *Cav*. Montini, the factory was managed by his son Carpino, an engineer. However, following repeated union attacks, the ownership decided to cede the Company.

One day our agent in Catania, *Cavaliere* Calcara, who sold water heaters, came to Casier with his wife decked out in jewellery. We immediately thought that he must be earning a lot of money. Calcara asked Dad to intercede with Mr. Montini so that he would entrust Calcara with the sale of bathtubs in Sicily. At that time, when someone was given an important commission, like the one for bathtubs, the owner asked the future sales rep for a guarantee in cash. My father managed to arrange for Calcara to get the commission through the use of bills of exchange, which would be kept in the company safe, without having to provide cash as a guarantee.

That day, while they were walking down the factory avenues, Calcara suggested that my father also buy "Isola", thereby completing his ownership of the property. I was standing next to Dad, and elbowed him, whispering in dialect "tell him we don't have any money". Dad listened to me and, in a resigned tone, said: "Dear *Cavaliere*, we don't have the money to buy "Isola", at which Calcara immediately replied: "I'll lend it to you!".

So he lent us two million lire (a large amount for that time), without any formal written document. Probably, as an honest Sicilian, he wanted return the favour Dad had done him regarding the bills of exchange.

Anyway, we went straight to Maestrello and signed the Act of Purchase for “Isola".

It made everyone very happy because, not only did we now own the whole property but, above all, we had avoided the risk of some other big company getting there first.

Between 1958 and 1959, *Cav*. Calcara came to Casier again and, amongst other things, asked me if I was able to make an instant gas water heater, of the type which was greatly in demand in Sicily. I immediately set to work: the exchanger was made by *Sile* with moulds to form the exchangers, then the exchanger block was immersed in a bath of smelted tin and lead, to create a single unit. The most complicated thing was the gas valve: I ordered 2,000 of them from *S.I.T.* in Padua, a small, efficient factory which is now an international company. I went to Milan to order the exterior panel from the *Moneta* company, and so production started.

The first water heaters were sold in Sicily to *Cavaliere* Calcara. However, something unforeseen happened: both in Catania and in Palermo the buildings were built with many floors and the domestic water supply provided without pressure from tanks placed on the terraces on the top floors. At least 2 bars were therefore needed in order to open the gas valve and this is why the water heaters didn’t work on the top floors.

It was a tragedy for me: I decided, in desperation, to suspend production, which seriously damaged *Sile*'s finances. In hindsight, had I continued production, *Sile* could be a huge gas water heater and gas boiler company today.

My father observed me without ever making a scene, aware that I was still learning; I was only 23 years old. The remaining production was going extremely well, to the extent that I had to take on new staff.

In the meantime I had understood exactly how the water –raising systems worked and, in particular, I had perfected the technique of creating the air cushion at a constant level. I put a thick rubber film in the tanks which was designed to separate the water from the air. After repeated trials, since the system worked, I registered the patent on 7th October 1959. The system is still used worldwide today.

Although Dad was against it, I continued to take on new employees, including someone to look after the management of the storeroom, called Guerrino. This led to a real quarrel. Peace was finally declared at the "Ai Due Pomi" *Trattoria* in Treviso over two glasses of wine, the evening of the same day. Dad suffered from angina and had been to see the doctor on several occasions, being prescribed medicines and told there was nothing to get alarmed about.

The Sunday following the quarrel we went to Pieve di Soligo for the “Festa dei Osei” , or Bird Feast, together with Gianni Lazzarini, our sales representative. We ate great quantities of the famous “poenta e osei” (polenta with birds). During the night Dad felt ill, blaming the overeating, but the pain in his chest was actually a heart attack. I got up at four in the morning and rushed to get Dr. Banchieri, who opened the door in his underpants. When I had explained Dad’s symptoms, he sent me to get some medicine which I gave him immediately.

The following Monday morning I went to the factory in Casier as usual at 7.30, before returning to Treviso to see how Dad was. I had just sat down by his bed to read him the results of the football matches when he told me that he felt strong pains in his chest. He hadn’t finished saying these last words when I saw him open his eyes wide. I got up from my chair, and he died in my arms. He was only 54 years old. I closed his eyes, stunned. I couldn’t take in the fact that he was really dead. I left the room and told Mum.

It was a tragedy whose every scene I still recall as if it were a film. Two days after the funeral, I returned to the factory. Sitting down at Dad’s desk I said “Now what shall I do?”. I had just turned 24. There were hundreds of workers in the factory and we were snowed under with bank debts and

owed 2 million lire to *Cavaliere* Calcara. At that important moment my sister Laura's help was critical.

I had for some time been interested in and romantically involved with a girl called Anna, who had gradually won my heart. After my father's death, Anna came regularly to my house to console my mother and my sister. This worried Uncle Aldo and Anna's mother because at that time it was scandalous for a girl to go to her future fiancé's home. So one day they said: "Why don't we marry these kids?". So we got married, in January 1960, and spent our week's honeymoon in Cortina; perhaps we will celebrate our Golden Wedding anniversary there, too. We then returned to work. Two children were born from our marriage: Silvia and Luigi; our granddaughter Marta is the daughter of Silvia and her husband Angelo, while our other grandchildren Linda, Matteo and Davide are the children of Luigi and his wife Federica.

At *Sile*, the *Falck* factory had stopped supplying the sheet metal used to make the boilers and water-raising systems. It was only thanks to the intervention of Uncle Aldo (formerly a great entrepreneur), that the situation was resolved. He assured them that I was a good kid and that he would supervise me for a certain length of time. And so he did. Then I carried on by myself.

All the products made up to that time were proving so successful that I was considering further enlarging the factory. The first thing that I did was to drain the land in order to join the strip along the *Jesolana* Road to "Isola". The work took several years, because it was necessary to fill in part of the "fjord" which separated the two pieces of land. The canal was very deep, as it had been a quarry providing gravel for the building of shelters and small forts during the 1915-18 war.

The town of Treviso had been half destroyed as a result of the bombardments, so I made an agreement with some haulage contractors for them to dump the debris in the 30-metre-deep former quarry. Once the two strips of land had been joined I began to think of a new series of factory buildings.

Throughout Italy, small boilers were being installed in the new flats. These ran on both coal and heavy oil while, for domestic hot water, electric water heaters were installed with an internal coil which was used to heat the water. Thanks to these innovative systems, *Sile*'s sales went very well.

In the meantime, the construction industry was making extraordinary progress: blocks of flats were being built all over Italy; whole streets were being created. This exponential growth marked the passage from the independent heating plant to the centralised one. The boilers were placed

in the basements of the blocks of flats, from where a series of pipes distributed the heat into the various flats.

The entrepreneurs constructed their buildings leaving room for the boilers after the foundations had been laid. Indeed, the system depended upon starting up the boilers in the cellars in advance, because they were then buried with no chance of being removed later.

There was no shortage of work to be done, and it was in this period that other boiler factories, such as *Biasi*, *Belleli*, *Ferroli*, etc., were set up. These years were distinguished by the technological change in the construction of heating plants for blocks of flats.

While visiting a boiler fair in Lyon, I came across a Danish company which produced mixing valves which were designed to work alongside the boilers to send water to the flats at a temperature which varied according to the different seasons of the year. Until that time, the only regulation of the heating plants was by a thermostat placed on the boiler. This came on and off with a differential of only a few degrees, meaning that boiling hot water reached the flats, causing the temperature to rise so high that people were forced to open the windows. There was a huge waste of energy, but heavy oil was very cheap and, moreover, the system worked.

When I saw the Danish mixing valve, which was able to mix the boiler's outflow with its backflow, I immediately thought of adding the valve. I

asked for the manufacturing licence, which I was granted, and started producing valves which I called CN , *circolazione naturale* (natural circulation).

I designed a new boiler to which the newly-conceived valve was applied. Having a constant temperature in the boiler, I thought I would add a copper exchanger in the upper part for the production of domestic hot water; it was a thermo-accumulator. We called them *SILTA*, which stood for *Sile Termo Acqua* and we made them with a power output which ranged from 30,000 to 100,0000 calories per hour.

The boiler was designed by my late architect friend, Facchini: it was a masterpiece, and gave rise to a series of steel boilers which were the only ones of their kind in Italy. Later, we added an electronic system which, by means of an engine and external probes, meant that the temperature of the boiler liquid varied according to the external temperature. This method is now available to all, but I created it as long ago as 1964.

The *Silta* boiler revolutionised the plants used in blocks of flats, because it also meant that hot water was centralised, thereby eliminating the need for thermo-electric water heaters.

In order to satisfy the demands of a market which was interested in the product, I decided to construct a great new factory building where the

boilers would be mass produced. To do so, I needed capital: I have always preferred to take out bank loans rather than take on new partners with “fresh” capital. The relationship with the banks ends once the loan has been paid back, whereas a partner remains “forever”.

I asked the *Cassa di Risparmio* for a loan and they agreed to lend me 212 million lire (about 100,000 Euros) with the assets of my mother and sister Laura as mortgage guarantees, since *Sile* ’s assets were insufficient. It is well-known that banks are very careful and don’t “let go” of money if it is not covered with at least a ratio of 1 to 10. With the help of Mum and Laura, I immediately started work on the building of the new factory building.

One morning at 8 o’clock a chauffeur-driven *Lancia Flavia* presented itself at the *Sile* gates (the new offices didn’t exist at that time). Belleli, the engineer, got out of the car, accompanied by Milani, the accountant. They asked the guardian to call me. I was surprised by the visit because I knew Belleli’s character.

He made the usual small talk and told me that, as he was passing by, he would like to visit the factory. It came as even more of a surprise that such a character happened to be passing by Casier at 8 o’clock in the morning, but in my innocence I allowed him to enter and visit the factory

buildings. He particularly wanted to see where we made the *Siltas*, which were having such success on the market.

The *Belleli* company had also started to make boilers and we were a problem for them in their sales areas. Their boilers were simple *Marina models*. To cut a long story short, 6 months later *Belleli* were on the market with a boiler similar to the *Silta*. There was, however, a big difference in the way the heat exchanger for hot water was constructed: the *Silta*'s exchanger could be removed in order to allow the cleaning of lime deposits, while the *Belleli* version was fixed to the pipe plates and there was no way of removing it for descaling. It was clear that they had designed a cheaper system.

A fierce rivalry started. One day Castioni, *Belleli's* agent in the Alto Adige region, asked me if I could let him be *Sile*'s representative there. As I didn't have anyone in the area, I showed interest on condition that he gave in his notice to *Belleli*. A few days later, a letter arrived from *Belleli* announcing that Castioni had resigned and was free to go wherever he wanted. Castioni became a *Sile* agent for the Alto Adige and sales in the area increased substantially (there was no other product that could compete with the *Silta*, not even from abroad).

After six months, I realized that sales in the Alto Adige were falling. Castioni had gone back to *Belleli* without even bothering to inform me.

What a way to behave! One evening in Milan, during the Trade Fair Meeting, my staff and I went out to dinner at the “La Torre di Pisa” restaurant. Castioni joined us and actually sat near me. After a few glasses of wine he slumped on my shoulder and apologized. He suffered from diabetes and died shortly afterwards.

The Trade Fair Meeting took place annually at that time and *Sile* had a series of first class products to present. Our stand was large because there was a lot of material to be displayed: there were the *Sile* boilers of varying sizes, from the smallest, of 30,000 calories per hour, to the largest, of 400,000 calories per hour. All of them were fitted with the CN valve and the electronic control system had been adopted. The complete water-raising systems were also on display, together with the boilers and the little “Domus”; in short, a vast range was represented which was almost unique for both the Italian and European markets.

One morning, a certain Dr. Sonnino called me on the phone. He was the Head of the Trade Fair Meeting and had always had a soft spot for me. He told me that he had a stand of 600 m2 which was the subject of a dispute between *Rex* and *Zoppas*, and asked me to take it myself, in order to put an end to the dispute between the other two companies. I didn’t need to be asked twice. I was 28 years old at the time and I immediately turned to my friend Facchini, the architect, asking him to

make ours the finest stand at the Fair. He was very good and created a stand that was so original for those times that it left a strong impression on all the visitors. He had prepared publicity material for the products on paper, an innovation which had never been seen before in the boiler sector.

We had visitors from all over Europe and all of them were stunned by the technology and design of the products. Even the most important competitors, both European and Italian, were curious and interested to see such a display. I believe that a new era in the European heating sector began with that Fair.

On 7th October 1959, as I have already mentioned, I had registered the patent for the tank with film (No. 617576), and unfortunately my father died only four days later.

It was therefore many years before I took the patent in hand and, in 1964, I registered an alteration (No. 809311) where the small tank with film (25 litres) appeared. I designed this small 25-litre tank in order to be able to create a pressurization plant of limited size which met the norms in force at that time and for which the ANCC test would not be required. I wanted to add a little pump of 1 hp, but there weren't any factories in Italy which produced a pump suitable for my needs. There were only positive-

displacement pumps of 5,000 revolutions which made a terrible din; moreover, if a bit of sand got in they stopped drawing.

I heard that an American company called *Jacuzzi* built small 1 hp centrifugal pumps. My wife Anna spoke English and so we decided to go to America to buy the pumps. We flew over the Ocean in a DC8 which was one of the first jet planes which Italy had bought off *Douglas* and had put as a scheduled flight on the Rome to New York route. We went on to Little Rock in Arkansas where I met Candido Jacuzzi, his son, and many people who worked with them. The factory was extremely new and had been built in Arkansas because it was a depressed area. The main factory was in San Francisco: they transported the electric engines 3,000 kilometres to Little Rock by truck. Candido set off by plane from San Francisco on Mondays and flew back on Saturdays.

In the new factory they moulded the rotors which were assembled with the parts from San Francisco. At Little Rock they made submerged pumps and external centrifuges up to 1 hp. They were just the pumps I needed to complete my patent and make a small water-raising system with a 25-litre tank with film. I bought 200 of them; they were self-priming pumps which, with the addition of a special *Venturi* tube, enabled water to be sucked up from a depth of up to 30 metres.

Candido Jacuzzi and his colleagues were amazed to see two young people arrive deep in America to buy their pumps and they took to us immediately.

Candido took us around for several days, giving us as much information as he could about the places and history of the country. He also taught us how to make an American breakfast. He invited us to his small flat in Little Rock and one day, with great pride, showed us a very large black telephone, saying to me: “You know, Sergio, I can make automatic calls to anywhere in America with this phone” . It was the beginning of auto-dialling; we were in 1964.

He also told us about his parents’ American adventure. The Jacuzzi family had set off from Italy in 1907 with the famous ships full of emigrants. The family consisted of father, mother and seven children. They settled in Los Angeles and, being from the Friuli region, they were rather skilled woodworkers and set about making aeroplane propellers, one of which is on display today at the main entrance to the Little Rock factory.

They went from making aeroplane propellers to making small planes. This did not last long, however, as one of the brothers died during a test flight, so they started making the pumps for which they were to become famous.

It was August. It was very hot and humid at Little Rock and we had air conditioning in our small room. Whenever we ordered a Coca Cola an ice bucket arrived which contained a single can of Coca Cola. I began to realise that I had come to a country where electricity cost nothing, which led to an enormous waste of energy.

One day Candido suggested we go to his house in San Francisco by car. We liked the idea very much, so he hired a car for us. It was a two-door black *Impala* made by *General Motors*. He got hold of a map for us and showed us the route we needed to follow to reach our goal.

The first important town we came to was Oklahoma City, which was famous for its huge quantities of underground petrol. There were drilling platforms everywhere which made it look like a forest. Just outside the town we took a road where a sign written in English said: “Welcome to Route 66, the road taken by the colonists headed West”. There wasn’t a motorway like today, just a simple road with two lanes. We passed through the town of Amarillo in Texas, then Tuncari, followed by a visit to Santa Fé and the Indian village of Taos. We also visited Albuquerque, before continuing via Gallup and finally arriving in Flagstaff. We made a detour to visit the Grand Canyon, arrived in Nevada and booked a night in the famous town of Las Vegas, which was incredible even then.

Here we had a misadventure which happens to those who, like me, are entirely ignorant of the American rules for paid parking. I parked the car, took the ticket and put it in my pocket. When we returned to get the car, it was no longer there. We were desperate: our suitcases were in the car, and we thought it had been stolen. We asked passers-by for help, in vain, and finally a heavily-built policeman arrived who must have weighed about 200 kilos. He explained what happened to those who failed to display the parking ticket inside the car and accompanied us to the garage where the car had been taken. Despite the fact that he explained to his colleagues that we were from Venice and that our failure to display the ticket was born of carelessness, we were forced to pay 10 Us dollars for the tow-away service. It was 1964 and we learnt that parking tickets had to be displayed!

We crossed through Death Valley, another breathtaking spectacle and, after driving over the Rocky Mountains, we arrived in San Francisco at the Jacuzzi's home. The journey had taken fifteen days.

Here we met Candido's wife and their son who suffered from poliomyelitis. Amongst the other things we saw in the Jacuzzi's home was a fairly large concrete bathtub where a special pump was immersed in order to massage the boy. I can say that I was among the first to see a Jacuzzi hydromassage bath.

That was the end of our trip. We returned home in a somewhat bewildered state after seeing such a huge country with its incredible natural beauty. We had fallen in love with America! Anna began to get interested in American history and literature and graduated in Anglo-American Studies at the University of Venice. After that trip, my life took a new direction.

Before setting off for America, I had bought a new car: a *Jaguar*. It was August when we travelled by car to the American West and the thermometer showed 45° Celsius on the outside. The hired car was fitted with air conditioning, a commodity which had come out only recently and we were kept very cool. In view of the obvious benefits, I phoned my sister Laura as soon as I arrived in Las Vegas and told her to be sure to install an air conditioning system in the new car. Phoning Italy from Las Vegas at that time was a real challenge, because you had to wait for hours to be able to get through to Italy. My sister had air conditioning installed in the new car and when I arrived home I felt like an American, driving an air-conditioned car.

The system consisted of a compressor which revolved with the engine and with a single jet of cold air which was fitted on the passenger's side. I immediately discovered, however, that the poor soul who had to sit next to me literally froze. These were the first systems produced by the

Friggetti company in Bologna, who are the world leaders in this technology today.

Shortly after I got back home, the two hundred pumps also arrived. *Sile* was already building 25-litre expansion tanks and I had had some excellent rubber films; the caps were in steel and an iron ring was used to close them . It was easy to attach the pumps to the expansion tank and the result was a small, unique pressure plant: as it was 25 litres, it no longer needed to be tested by the ANCC. I remember saying to my colleagues: “This plant will revolutionise the systems of water distribution in homes and the tanks placed on the terraces will disappear”. And so it was. We had already started to sell the same expansion tanks for heating plants, making them watertight.

The American pumps soon ran out and I needed more. Importing them from America was very expensive, so I contacted Vecelli, the owner of *Vema*, which produced small 5,000 revolution pumps. I suggested that he copied a *Jacuzzi* pump for production. He agreed and we drew up a contract which stipulated that *Vema* would promise to manufacture the pumps and *Sile* the expansion tanks. They were to be sold with the two distinct logos.

At a certain point *Vecelli*, reneging on the contract, stopped supplying the pumps. Without the pumps, I was no longer able to sell the units. It was

extremely dishonest. We took on a legal battle which I unfortunately lost, because my adversary proved that a day before I had registered my patent, in October 1959, a patent had been registered in the United States for an agricultural pump which had a film serving as an air lung at its base, meaning mine had arrived too late.

I was so indignant about what had happened that, out of anger, I dropped the small plant sector, while continuing with the large plants and the complete water-raising systems. It was a great pity because, within a few years, pump manufacturers had multiplied and Italy became the biggest producer of pumps in the world. It was the same for the expansion tanks where, with the increased number of factories, Italy covered almost the whole of the international market.

I abandoned the pumps and dedicated myself to another of my passions: harnessing solar energy to produce hot water. I designed a small natural circulation plant with two panels and a 150-litre tank and presented it at the *Fiera del Levante* in Bari in September 1962. It was a great success, exciting curiosity as it was the first solar plant to be presented in Italy. For some years I didn't produce many of them; it was only when the national electricity company ENEL proposed loans for anyone installing solar panels that the market revived and, according to ENEL, *Sile'*s production output represented 8% of the Italian market. Once the ENEL loans had

finished, the market shrank and it is only now that energy has reached stratospheric costs that the market is picking up again. Taking into account our considerable experience acquired over many years, *Sile* focuses on large plants for hotels, communities and campsites, etc..

After returning from my trip to America, I had a meeting with Umberto Facchini. Together we had attended the five year surveying course at the *Istituto Riccati* and, after qualifying, he had enrolled in the Faculty of Architecture at Venice University, while I had started in the workshop. He had graduated with a First Class Degree and, together with another schoolmate, the late Paolo Bandiera, who had also graduated in Architecture at Venice, they had set up a Studio of Architecture in Treviso.

I told Umberto about the marvels I had seen during my trip to the United States saying, amongst other things: “Dear ‘Berto, you can never become a ‘great’ architect if you haven’t seen America.”

He stared at me in amazement and shortly after we decided to cross America from East to West, visiting the architectural works of Frank Lloyd Wright. My architectural knowledge was very limited, but I trusted his knowledge and we decided to set off with our respective wives. It was August 1966. The first stop was Montreal in Canada. We went to meet up with a surveyor friend and former classmate, who had emigrated to

Canada and was working in Labrador at 60° below zero. Over the years he had obtained three degrees in engineering and was an outstanding figure in the energy sector. His name was Giancarlo Bellè, the friend of my studies, who had since died.

While at his house we planned the travel itineraries for a whole month: we travelled thousands of miles to visit Wright's works. This time it was a completely new experience for Anna and me, one which was full of cultural stimuli: under Berto's guidance, we were able to see another America, from the perspective of architecture and art.

When we returned to Italy, the factory was under full steam and a new extension was required.

In the same period the building work for *Marco Polo* airport in Tessera, Venice, had begun. In order to raise the surface of the lagoon where the airport was to be built above the maximum level of the tide, they transported millions of metres cubed of material from north of Treviso. A hundred trucks, day and night, went to and fro Tessera and Treviso, loaded to the gunnels, making the walls of the old offices along the *Jesolana* Road tremble every time they passed. The employees were afraid that the building would collapse, and I trembled even more than they did at the thought of an accident.

Flushed with enthusiasm after seeing so many beautiful buildings in America, I decided to have the new offices built. I called my architect friend Facchini to present my ideas. Besides building the new offices , I wanted to provide a sort of structure plan to follow as the factory grew. For him, it was a unique opportunity to carry out such interesting work and he started designing immediately. When he presented me with the project I was enthusiastic and told him I was all in favour. I only asked for two things: that the offices had a tower which conveyed the Company's image, with the word *Sile* lit up, and that the River Sile were visible from the *Jesolana* Road. Work began in 1967with the *Zavan* company, which took loving care of all the details of the reinforced concrete structure.

'Berto was on the spot every morning at 7 a.m. with the ever-present cigarette and a copy of the *Il Corriere* newspaper under his arm: he checked up on the progress being made, then returned to his studio to have another look at certain details.

They were wonderful days! The excitement of seeing my dream of building new offices from nothing fulfilled - offices which represented the increasing importance of *Sile* in Italy. And at the same time to feel the calm that came from the knowledge that I already had an enlargement plan in reserve if it were needed.

I really wanted to have a sundial represented on the tower. After waiting patiently for ten years, I managed to get the sundial done by the famous *Maestro* Toni Benetton, designed by Flora, the surveyor. It is built in galvanised steel and says “sine sole sileo”, which means “I don’t work without the sun”. It was inaugurated with a wonderful party and Andrea Zanzotto, the poet, gave a charming description of the sundial.

In the winter of 1966 I went to America for the third time, this time with a group of German technicians, to visit the *Carrier* factory. I had a feeling that the market was ready to receive plants for the production of cold air and not just boilers. There couldn’t have been a better opportunity. There were only another two Italians in the group: Manini, who was later to become the importer of *Grundfos* pumps, and Beppe Schmidhammer, the owner of *Termo Clima* in Brunick. We became friends and discovered many things in the air conditioning sector. Carrier invented the first systems of air conditioning in America, and they were undoubtedly one of the most important technologies in the development of the country, because they enabled areas of the country to be inhabited whose climate would otherwise have been too inhospitable.

On my return, I started producing a series of air-cooling machines and had great success: there was practically no competition. I decided to build a new building to separate the two sectors. The new factory was situated

at Lughignano and was called *SILE CONDIZIONATORI*. I took the production of the water-raising systems there, too, in order to free up the other sections of *Sile* for the building of boilers and tanks.

One evening I took part in a meeting in a restaurant in Verona with a group of boiler constructors including the engineers Pillade Riello and Belleli, together with Dante Ferroli and others whose names have slipped from memory. I was the youngest of the lot of them. The meeting had been organised to talk about problems relating to boilers. To our great surprise, at a certain point Riello declared, in Veneto dialect: “I’m going to start making boilers”. We were all stunned by this outburst and tried to persuade him to abandon the idea, saying: “We should do what the Germans do and keep the various production sectors separate; there will be specialised boiler-makers, burner-makers, etc ..However, we were unable to convince him – indeed, Riello grew angry and banged the door as he left the room.

A few days later we heard that he had started up a line of newly-designed diesel boilers in Piombino Dese which produced up to 30,000 calories an hour and looked like washing machines.

My immediate thought was: “Things are changing here. In time, the burner-manufacturers will become boiler-manufacturers.”.

I had three solutions:

1)To build burners. This solution was very difficult because we would have had to change our methods of production and sales. In order to sell, burners-manufacturers needed a sales assistance network, which *Riello*, for example, had already got well-organised; to sell only boilers, on the other hand, one only needed good salesmen.

2) To go and sell boilers to the burner-manufacturers.

3) To do nothing and wait for events to unfold.

At that point I tried selling boilers to the burner-manufacturers. They were not equipped to produce boilers and, to imitate *Riello*, they were looking for producers prepared to sell boilers with their trademark. I made the first contract with *Oertli San Andrea* for the supply of 5,000 boilers . Unfortunately, all hell broke loose with my salesmen, who found themselves on the market with identical boilers with two trademarks. All the salesmen came to a meeting at the factory and gave me an ultimatum: “Either we sell the boilers or *Oertli* does”. I took the side of my salesmen, on condition that they sold 5,000 boilers. They did so without any difficulty. I realised that selling boilers to burner-manufacturers was out of the question.

Between 1967 and 1968 there was a great evolution in the design and construction system for medium- and high-powered boilers. All the boilers, both those made of steel and those made of cast iron, were

designed so that the waste fumes were disposed of through suction, in other words, by means of uptake through chimneys. The average yield of boilers fuelled by combustible oil was of about 10,000 calories per hour per square metre of surface exposed to the flame and the fumes. A Swiss company sold boilers with a superior yield, of around 30,000 calories per hour per square metre, exploiting the speed of the waste fumes from the combustion, thereby accelerating the exchange coefficient between fire and water. The burners had to be boosted, so the burner fans were changed in order to obtain the above benefits. The boilers also underwent alterations. The Swiss company *Ignis* offered a boiler with a single smoke bend, in which the flame turned round in the combustion chamber and the fumes were slowed down and created greater pressure in the combustion chamber. This type of boiler worked well with the light diesel oil by now to be found in Switzerland but it was not the same when it was imported to Italy, due to the heavy oil used which was still dense and had many unburnt particles. All the Italian manufacturers copied the *Ignis* boiler without bothering about the fuel problem, with the result that the boiler pipes which contained the dynamic turbulence brakes became obstructed and caused many problems; as a result, they were removed with the ensuing release of fumes at very high temperatures, which affected the performance of the boiler.

As a result of these experiences, at *Sile* we designed a pressurised boiler without dynamic turbulence brakes. It was, however, larger and more expensive. I presented this project to the Lombardy section of the *Associazione Termotecnica Italiana* in March 1968 and the President of the meeting, the engineer Franco Palmizi, who was considered a luminary in the sector, approved our project with great enthusiasm, stating that when the dynamic turbulence brakes were removed from the boilers they were usually “heaps of burnt scrap metal”. There were thus two boiler models available on the market: one cheap and another more expensive. I am certain that Palmizi always recommended the boilers without dynamic turbulence brakes for his projects. *Sile* made thousands of these boilers for both civil and industrial projects, many of which are still working even after 30 years.

One day I invited Pilade Riello to lunch at my house. It was the Easter period and Anna, like a good cook, had prepared lamb for him. The engineer arrived with a bag of bread which he placed on the table, before saying, in Veneto dialect: “Forgive me but I only eat the bread that I make at home. It’s bread which has been double-baked, which is good for my stomach-ache”. “Don’t worry, Mr. Riello, go ahead” – we replied. Amongst other things, he wanted to tell me a story which had happened to his friend Enrico Mattei. The two had been friends from the time when they were both Partisans and had fought the Nazi-Fascists on the mountains.

When the war finished Riello began working with burners and Mattei went into politics. As is well-known, one day Mattei drew up a fat contract with Persia for the purchase of crude oil. The contract was very advantageous for the Persians and Mattei brought upon himself the ire of the Seven Sisters, as he had broken a cartel. However, Mattei said to his friend Riello in dialect: “Dear Piade, as long as I am here, black heavy oil will be burnt in the boilers”. So Riello made burners and we made boilers suitable for burning heavy oil. There came a day when Mattei’s plane crashed and the engineer died.

After a few months the light oil which could also be burnt in the boilers was decontrolled. The combustion of diesel is simpler than dense heavy oil combustion and so the burners became simpler.

Mr. Lamborghini returned from America with diesel burners and began producing them immediately, calling them silent burners.

This was a revolution because the boilers had smaller furnaces and the burners were simpler. In addition, pollution in the towns, which had by now become serious with the intolerable dense heavy oil, dropped considerably.

After petrol had been decontrolled, many foreign competitors were able to enter Italy easily and sell their boilers, because they were already predisposed for diesel combustion. Riello hurried to repair the damage

and made a magnificent series of diesel burners, together with a newly-conceived small washing-machine-type boiler which produced heating and domestic hot water. He called it “Robbi”, after his son Roberto.

While the Company progressed a great new problem arose which threatened to change the course of *Sile*’s development.

1968 was a terrible year because a sort of revolution had broken out in Italy which would, according to the ”sixty-eighters”, change Italian society. I don’t know, and I don’t even want to know, who it was who championed such a commotion. But everyone was in on it: Communists, Christian Democrats, Socialists, etc.. All were intent on chasing this dream of renewal. Maybe it was even true that renewal was necessary, but the method used to achieve this aim, at least as regards *Sile*, was a disaster. At that time, *Sile* was perhaps the most important iron-working company in Treviso and the unions rounded on the Company. The orders to strike arrived directly from Rome, and they were destructive strikes: four consecutive days of strikes, for example, or interruptions in work every five minutes or even acts of sabotage in the factory. There was no chance of reaching agreements. The aim of the unions was to destroy in order to create something new. They were the parties’ drive belt. At *Sile*, the CISL (the Democratic trade union) was in command, while in other

factories it was the CGIL (the Communist trade union). They competed to see who could cause most damage to the factories.

I tried sending a letter to my employees explaining that if things continued in the same way the factory risked bankruptcy. The only reply I got was a thorough telling off from the *Unità*, the official Communist newspaper, in which an article declared that owners were the worst of all evils. Maybe the aim really **was** to make the Company bankrupt, because I heard that there were already some characters ready to replace me and the management class at *Sile*.

Over the course of the strikes, enormous hatred for the owners welled up. One morning I found the word “exploiter”, written in whitewash outside the gate of my house; I remember telling the strike leaders that the rain would wash it away. At the height of the strikes I decided to move the family to a hotel because it was too risky to live near the factory.

It was the same story at all the factories, even at *Fiat*.

By now, production was down to zero and the Company’s problems continued throughout 1969. On 11th November of the same year, when I saw that *Sile* was on the edge of bankruptcy, I decided to halt production at 3 o’clock in the afternoon. I called all the employees and the trade unionists to explain that we had now reached the end. After asking the unionists what they wanted from me, in a moment of anger born out of

desperation, I took off my jacket, took out my wallet and hurled it at them, before collapsing in hysterical tears. Someone took me home where I cried away my anger at seeing the Company go bankrupt.

It was the mother of all scenes, but it bore some fruit: the strikes continued, but at least they were conducted more decently.

However, following these events, I stopped speaking to all my employees, workers and directors alike, and left all the decisions concerning the running of the Company to them.

The Company went from bad to worse and costs rose. Our competitors had not been targeted and, as they didn't have any problems with the unions, they competed against me unfairly. I have never been able to understand why certain companies were targeted for strikes while others weren't. Or perhaps I had understood too much; whatever the case, I cut myself off from any attempts at dialogue.

At that time I was busy with another sector, still connected to heating, while *Riello* started to sell the "heat package", which consisted of a boiler, a burner and accompanying radiators. It was an astute business move. *Sile* didn't have radiators and so I decided to buy a small factory in Fossalta di Piave which made foliated steel radiators. They had been invented by a French company called *Finimetal* and were also in great demand in North Italy.

Baggio from Bassano del Grappa had obtained the manufacturing licence and the radiator was called “Lamella”. The company in Fossalta had copied it, producing it with machinery designed in Italy which was completely different from that used by *Biaggio*. Some of my salesmen were *Biaggio* representatives, so I thought that, by forming a company with them, they would stop representing the “Lamella” radiator and I could do a smart piece of business.

I constituted a public limited company in which I held 56% of the shares, while the remaining 44% was spread around my salesmen. I began shuttling between Casier and Fossalta every morning and, with the purchase of new machinery, it didn’t take long for production to reach a good level of profit. I had decided to devote myself to selling the radiator in France, competing with the French radiator, while the director of the time looked after to the German market. In Italy, the radiators were sold through the boiler sales network.

I started contacting a lot of distributors in France and I triggered a form of advertising which was later to prove successful both for our Italian clients and for tourism in Venice.

I knew that the French people loved Venice, perhaps because Napoleon had come to visit the city, incidentally stealing many works of art (something which French schoolbooks fail to mention). So I decided to

invite all the clients of a French distributor to visit Venice. Setting out from Casier in a large boat, we visited the islands of Torcello, Burano and Murano before landing at Venice to admire the city's beautiful treasures. We then continued in the boat to Tronchetto. The tour lasted two days - Friday and Saturday - and was an unprecedented success: ten times a year, in the summer months, I became a tourist guide. By now I had acquired about twenty French distributors.

The other director, the one who was in charge of the sale of radiators in Germany, chose not to follow my diversification strategy, relying instead on a single important client.

In the meantime, things at *Sile* were getting even worse; we had reached the point where, in order to streamline production which had now become too costly, we would have to lay off at least fifty people. There was an outcry; I was accused of hiding the money, of incompetence and whatever else they could think of.

Then we had a lucky break: the German client doubled his radiator order for 1977.

The factory in Fossalta had an overproduction of moulded parts and lacked staff for welding. In view of the size of the order, I formed a welding line at *Sile* and every morning a truck took the parts to Fossalta to be finished. In this way I solved the problem of the dismissals for the

short-term. I asked the *Cassa di Risparmio* for a loan to buy the iron in order to increase production and the Bank granted me 800 million lire (about 400,000 Euro). The first deliveries were supposed to take place in the first week of April 1977, with 16 truckloads a month continuing to be delivered for the whole year.

The first truck had just set off when we received a call from the client cancelling the following deliveries because he had enough stocks in his warehouse. It was a real shock: I had to stop production immediately; I had taken on 80 workers in Fossalto; the Bank asked for the loan to be returned; the 50 redundant workers at *Sile* now had to be laid off. I rushed here and there trying to compensate for the loss of the order from Germany.

Things got worse by the month; the debts increased. At the end of the month of October, while I was in Algeria selling a good batch of radiators to the state company, *Ecotec*, I was informed over the phone that the director and accountant had gone to the banks to declare that *Sile* was practically insolvent and should be declared bankrupt.

I took the first plane for Europe, landing at Nice, where my chauffeur came to pick me up, and returned home at full speed.

It was chaos: all the banks were pressing to recover the money which they had loaned. I didn't have any more money for national insurance or to pay the workers.

The Unions held meetings, the mayors of the local villages argued, newspapers published article after article on the *Sile* crisis. Finally, one day, Campanati, the Director General of the *Cassa di Risparmio* at the time, summoned the creditor banks and made a fine speech, stressing that they had to save *Sile*. At that point I had a great idea: I told the bankers that, if they extended credit to me once more, I would leave 5% of every discount package in the accounts to repay the Company's debts .

To my great surprise, the banks and the Unions both accepted my proposal. I returned home having decided to carry on with the Company. I sent the clerk to the *Cassa di Risparmio* with a package of drafts to be discounted, but she phoned me to tell me that Sergio Campanati had changed his mind.

At this point, with my back to the wall, I had another idea: I went to my surveyor friend Bruno Frate ,who was at that time the administrator at the *Leis* Company in Spresiano, and asked him to guarantee the drafts which Campanati no longer wished to discount. Bruno immediately said

he would and I returned to the bank with the drafts guaranteed by Bruno Frate. They gave me the money.

Our products continued to sell and so, since things had gone well the first time, I asked my industrialist friends to guarantee the drafts each time *Sile* issued them. They included Baciglieri from *Faram*, Aldo Tognana, Guzzon, Secco and many others. Basically, I was able to keep going thanks to the guarantees provided by the town's best-known industrialists who were my friends. I can say that *Sile* was saved by the industrialists because, if everything had depended on the banks, the Company would have had to shut down.

Our customers continued to buy, and in the meanwhile our production department had redesigned all the products, making them simpler and less expensive.

During this period I reached an agreement with the unions, possibly the first of its kind stipulated with a company after the upheaval of '68. After ten years of non communication, I signed an agreement according to which the workers promised to work. At last the passionate madness of those years came to an end. Only after four years did the famous march by the Fiat middle management take place which brought the '68 period to an end.

In the first months of 1978 there was a petrol crisis and there was a shortage of diesel for heating. People were looking for a type of boiler which ran on both diesel and wood. By chance, the *Sile* technicians had, amongst other things, perfected a new kind of boiler which could run on both types of fuel. I found I was the only one making this type of boiler and sales were very successful. Profits were good and within a year I was able to repay all my debts to the national insurance, banks and suppliers. I thus managed to keep the Company and its three hundred employees afloat. The banks gradually stopped contacting me: they honoured the Sile portfolio without asking for any more information about the Company's state of health. At the end of 1978, everything returned to normal. It had taken ten years of suffering, but in the end I had hung on, while other, less fortunate industrialist friends hadn't made it.

I stress that in order to reach that famous agreement with the Unions I had to give up the air conditioning sector which had started off really well, because the unions said that it did not have a future. We al know how the conditioning sector has developed since!

During the ten years of turmoil, the production department had developed, among its new products, stainless steel water tank. It was, and still remains, a quality product. Owing to the big increases in the price of diesel and the fact that it was difficult to control the consumption of fuel

in the boilers, the idea of an autonomous plant which could be controlled, enabling money to be saved, started catching on. The single heating unit was rediscovered.

Italy had, in the meantime, devised a plan for the importation of natural gas from various countries: from Russia (Siberian gas), Algeria (with the famous pipeline that stretched from Algeria through Tunisia, before reaching Mazara del Vallo and carrying on until North Italy), from Holland and from France. Recently, we have transported gas from Libya in special ships at low sub-zero temperatures before gasifying it and using it in the national network. There is also Italian gas from the Padania plain and the Adriatic.

Faced with a such a well-structured plan it was easy to imagine that it would be quick and feasible to have autonomous heating in houses.

At *Sile*, the idea of building a gas wall boiler was taking hold. We had already had previous experience with standing gas boilers, but we had never tried building a gas wall boiler. All the boilers on the market were of the instantaneous type, whether foreign or Italian, but no one built wall boilers with a tank.

I aimed to build a gas wall heater with our metal working department and the project took shape around a steel boiler containing a 316 stainless steel tank. We had to build all the equipment needed to execute the

project and we built a boiler which caused quite a stir at that time. It had two faults, compared to the other instant boilers: it was heavy and bulky. On the other hand, it offered some great advantages: it produced a large quantity of hot water, could feed two taps simultaneously and was so simple to maintain that it could even be serviced by a plumber .

After twenty years, we were finally able to sell boilers with their own burners and therefore compete at the same level as the burner producers.

At first, our competitors looked on the product with amusement, incredulous that a boiler made that way could be successful; later, however, sales increased to the point where they even partially put the instant boiler market in the shade.

Many of our competitors slowly set about producing gas wall boilers until, from being the market leader, I had to settle for a secondary position. The current market quota of tank boilers is around 20%. We therefore decided that we should also build a series of instant gas wall boilers in order to to be more competitive. This gave rise to the famous “SupeRapida” boiler. It was, and still is, a fast, innovative boiler because, through an ingenious electronic system, we managed to avoid lime deposits in the heat exchanger which, in conditions where there was particularly hard water, became scaled up in a short time. Thanks to this

innovation we entered the market for fast boilers with an interesting new product. We have sold thousands of “SupeRapida” boilers up to the present time; the boiler now has a modern design and excellent performance for the production of hot water.

The cost of fuel, as everyone knows, is constantly on the rise, including that of methane gas. Moreover, the greater the number of boilers installed, the greater the pollution produced. All this has led to the creation of a new innovative gas boiler with up to 98% efficiency whose emission of polluting gases, such as nitrogen oxides, has been reduced to almost nothing.

The technology for this new so-called condensing boiler came from Northern European countries and, given its enormous advantages, is spreading throughout the whole world. Five years ago at *Sile* we started studying the technology of these innovative condenser boilers and today production is at full steam. The new boilers are replacing the old ones; I believe that all gas boilers will be condensing boilers within a few years.

Lately, a new mixed system of heating in apartment blocks is being rediscovered. It involves multiple unit centralised condensing boilers and small heat exchangers in each apartment, where the heat is measured using electronic systems.

This system can work well, but it should be borne in mind that, in calculating single units of consumption, there is always a quota which has to be paid by everyone living in the apartment block.

There follows a brief history of heating plants for apartment blocks:

1945 – 1955 autonomous plant with small coal boilers and wood-fuelled water heater for domestic hot water , initially without pressure, then with;

1955 – 1960 replacement of coal-fuelled boilers with heavy oil boilers or, in some parts of Italy (e.g. Venice), gas boilers, and with electric water heaters for domestic hot water;

1960 – 1970 centralised plants with heavy oil burners and thermo-electric water heaters in every individual flat;

1975 – 1980 centralised plants with centralised burners, 4-direction valves and centralised hot water with heat metres;

1980 – 2006 first independent systems with gas wall boilers;

2006 onwards mixed centralised systems with multiple unit condensing boilers and heat exchangers in every flat with a central heat metre.

Sile has followed and led these transformations over 50 years of history and product renewal.

The history of single plants is different, but it has followed the change in fuels, efficiency, regulations and the installation of solar panels.

When I was two or three years old, my grandmother accompanied me to the seaside in Jesolo and we stayed at the Aurora Hotel. Built by the Scattolin family, who had arrived with horses and carts to build this first attempt at a hotel , it looked more like a wooden hut.

In the mornings, armed with a bucket, we went along the beach as far as the lighthouse to collect scallops. It was all deserted: there were only great sand dunes which have since been swept away by the hotels.

I looked at the sea and often saw the distant smoking chimneys of the ships, which ran on coal at that time. They would disappear slowly over the horizon leaving me wondering where they went.

I think this was the birth of my passion for the sea and its limitless water basin. As an adult, I began sailing on a small “beccaccino” along the Jesolo coast and persuaded my girlfriend, Anna, to sail with me. We had great fun.

Amongst the various sailing boats which I have had, I recall the “Escapade”, a 51-foot American-built sailing boat which I purchased, just

as it was, in Fort Lauderdale, Florida and which I got completely refurbished in order to bring it to the Adriatic. The boat arrived at Monfalcone towards the end of the eighties. I had to change the American flag to an Italian one and this cost me a fortune in VAT.

For a few years until 1991, I sailed with the family in the Adriatic. Then the war began in the Balkan peninsular. Croatia was at war with Serbia and it was dangerous to sail along the Croatian coast.

In 1992, the 500th anniversary of the discovery of America, I decided to make an Atlantic crossing. I read the programme of a regatta organised for the occasion in an English nautical magazine and signed up. Together with another 140 sailing boats, we set off from Porto Palos, the city from which Christopher Columbus had set out. It was August and our departure was saluted by the King of Spain, who had come to celebrate the anniversary.

The first stage was Madera, then the Canary Islands; and for three days we sailed with a crew made up mainly by members of my family. The boat was moored for three months off Lanzarote, in the Canary Islands.

On the 15th November, we set off for the final stage, San Salvador in the Bahamas, the regatta's destination, where Columbus saw land.

For the crossing, the crew comprised seven people, including myself, as cook : Giangi – skipper, Tony – sailor, Luigi Secco, Marco Busatto, Fausto Riva – doctor, Umberto Knycz. It was a very calm crossing and lasted three weeks. We had great fun and covered 3,300 nautical miles at an average of 6.38 miles per hour. On departure from the Canaries, a palm tree was delivered to each boat, which was to be planted on arrival in San Salvador. We planted ours alongside all the others, forming an avenue along the beach.

This crossing satisfied all the curiosity I had had since I was a child. I fully understood what was on the other side of the sea which had so stimulated my imagination. There was another land, then another until you ended up back where you had started from. It was obvious, given that the Earth is round.

Ever since I first started thinking, I have always wondered about the nature of Man and God. The evolution of human beings, from apes to homo sapiens right up to us today with our developed brains, is full of incredible and stupefying passages .

I would not be able to judge today if, in some ways, the level of human evolution has advanced or regressed. I have always thought that Man's life on Earth came from a single stem, evolving subsequently in order to adapt to different environments.

I believe it is very important for the various human races to meet and measure themselves against each other, in order to develop their minds and allow the evolutionary process to continue. But you need peace between men here on Earth, not war.. .

The evolution of our brains is comparable to that of personal computers, which are ever more sophisticated and with ever-larger memory capacities.

I call the man who is born and who says new things “the God man”. And I try in this way to give a definition of the figure of God.

I don’t know if, at the end of my life, I will also be able to contribute in some way to a take human evolution a step forward, but one thing is certain: I have two children and four grandchildren. This could already be seen as a concrete contribution to evolution. Those who live will see if this is so. My four grandchildren will see.

The reason for our success on the market in all these years is also the special attention we have paid to the choice of our suppliers. Thanks are therefore due to the following firms: *Giannoni*, who have always followed the evolution of the market and created particularly efficient heat exchangers; *Polidoro* of Vicenza, who have supplied us with the best burners in the world for over forty years; *Bertelli*, who have provided the high quality electronic cards for the boilers; *Honeywell*, etc ..

I would also like to offer my heartfelt thanks to our sales representatives and assistants for their positive contribution. I am also extremely grateful to all our loyal customers who have believed in us by buying our products.

I must not forget the workers who have worked at *Sile* with skill and professionalism and all the *Sile* pensioners who will live, like me, off memories.

Special thanks to all the banks in our town who have always extended credit to us, even in the most difficult of times.

After fifty years of working I ceded *Sile* to my son Luigi, who became president and administrator, while my daughter Silvia and I are company advisers. At the same time, I also ceded ownership of the Company shares to my children and my wife.

After I had done so, fate decided to play a nasty trick on me: I had a heart attack. It was only the alertness of Silvia, my daughter, and her husband Angelo, who live in Pennsylvania, USA, which saved my life. They made an emergency dash to get me to Doylestown hospital, where a team of cardiologists fitted me with four coronary bypasses, no less.

A Chinese proverb says:

"*Carry a grain of wheat to the same place during your life and in the end you will find a mountain*" .

I don't know how high my mountain is, but one thing is certain: it is not a plain.

VARIOUS MEMORIES

...Sergio De Pieri

At the beginning of the sixties, the Municipality of Casier was truly poor and *Sile*, by employing local people, had begun to spread a bit of wealth around, although poverty remained great and many villagers emigrated. One morning in spring, my friend Sergio De Pieri, the son of a family of smallholders from Casier, came to see me in my office. A music lover, he had studied organ and piano at the Venice Conservatory . He came to say 'goodbye' because he was setting off for Australia in the hope of being able to build a carer Down Under. He set sail on a ship that took over a month to reach its destination. I lost sight of him and heard nothing more about what he was doing in that faraway place. He returned to Italy in 1972,came to see me and told me about his experiences. He had gradually made a name for himself in Australia as an organist had

become organ teacher at the Melbourne Conservatory. When he returned to Italy he was taken on as Professor of Composition by the Venice Conservatory, where he taught for 18 years. He gave many concerts in practically every church in the Veneto region, Italy and Europe which had precious organs. He composed many pieces for organ and his piece entitled "The 7th April Bombing of Treviso" is usually requested at the end of the concerts. In the years following his retirement until today, he has spent half the year in Italy and half the year in Australia, continuing to give concerts and organise music festivals. Recently he had the honorary title of "Sir" bestowed upon him, which is the most important recognition with which the Australian government honours deserving figures. I'm telling this story to give an idea of the kind of figures the Municipality of Silea has produced. We are still friends and we often get together to remember the years which have gone by and the sacrifices they entailed. We are proud of our success, but we never forget the poverty of fifty years ago.

... Tokyo

In the sixties, I made a trip to Brazil. At that time people were starting to talk about solar panels: *Rex* and *Merloni* had begun to produce them, exploiting the technology of aluminium working already used for the

condensers in domestic fridges. I didn't like the panels, finding them ugly - too long and narrow. For me, the panels needed to extend horizontally in order to adapt better to being fitted on the roofs of houses. On my return from Brazil, I heard that there was an exhibition of solar panels in Japan. So, without wasting a minute, I caught the first available plane and flew to Tokyo with Air France – a 14-hour flight, with a stop- off at Moscow.

On my arrival at the airport, my interpreter, a pretty Japanese girl, was waiting to accompany me to the exhibition. I was curious to see if the solar panels on display extended vertically or horizontally, and discover what material they were made from. The Fair was not a large one and only a few companies were exhibiting solar panels, but they were all horizontal and in stainless steel with copper tubes. I stayed overnight in a hotel but couldn't sleep through jet lag. Flicking through a newspaper, I discovered that the Fair had ended that very day. Luckily, I had been able to see what I was interested in. The following morning, when my interpreter came to pick me up at the hotel, I decided to ask her to take me around Tokyo. I then returned to Italy with a stopover "rest" at the Seychelles, where I decided that the *Sile* panels would be made to extend horizontally and would have copper tubes.

... cast iron

The first heating systems in Europe and the United States were built in about 1865. Indeed, in the same year the *SMIT* cast iron boiler factory was founded, and it is still producing today. *Ideal Standard* later spread its trademark throughout Europe, except in Spain where the predominant trademark was *Roca*, while in Germany it was *Buderus* and in Italy *Necchi* and *Bongioanni* and later also *Biasi*, *Ferroli*, *Sime* and others. Even the radiators, built in cast iron, later spread throughout the world. This method of smelting metal was used owing to the fact that rolled steel sections were as yet unknown, as were moulding and welding systems. It followed that cast iron was commonly considered to be heating material. The fuel used was fossil coal, the boilers were bulky, heavy and the high thermal flywheel enabled heat to be released by the radiators even when the flame was dying down. No account, however, was taken of the fact that, while it was true that the radiators cooled down very slowly, they also needed the same amount of time to heat up.

The cast iron radiators had other qualities: they did not corrode on the inside and lasted almost indefinitely. One of my clients from Cortina told me that in the heating plants for villas and hotels he never used steel radiators, preferring cast iron ones because he was worried about corrosion since the plants were emptied for fear of frost, given that there was no winter tourism at that time.

After the war 1.2mm thick sheet metal radiators began to be installed, assembled with unions; electrically-welded steel boilers were built and circulation pumps fitted, so the plants worked more flexibly. Later plants began to be built with water-tight tanks for which different calculations were required.

... Beirut

As early as 1955, *Sile* was producing small steel boilers which competed on the market with those in cast iron. One day in the seventies, at the Frankfurt Fair, Mr. Mohamed Beidun (the eldest of three brothers who owned a company which produced heating and air conditioning plants in Beirut), asked me if *Sile* was capable of producing small steel boilers which were able to withstand 5 bars . I said we were, as I realised that cast iron could not withstand such pressure. They were building very tall blocks of flats, even 40 metres high, and the boilers were installed in the basements. There were between twenty and thirty units depending on the number of flats. It followed that the boilers which served the flats on the upper floors had to be able to withstand pressure as high as 5 bars.

It was a fine deal and we built hundreds of small boilers. The word "*Sile*" appeared all over Beirut and our trademark is still to be found there. Steel boilers had found their exclusive place in the installations, too. Beirut was a magnificent city and was known as "the Switzerland of the Middle East".

Then the civil war began which still rages today, with destruction and death marking the end of our sales in Beirut.

... Russia

One September day in 1998, a Russian delegation sent by the Municipality of Treviso came to visit *Sile*. It was composed of a former general of the Russian Army and his assistants, who were interested in visiting a boiler factory. The former general was a small, decisive type, undoubtedly used to being in command. He visited the factory and immediately decided that they needed to build a factory like *Sile* in Russia. I had been hoping that a similar opportunity would present itself for years. After a few days, my son Luigi and I set out for Moscow with an interpreter. On our arrival at the airport, the General came to pick us up in a brand new blue Audi. The temperature was 25° below zero and it was already dark. We went to Salinograd, which was 70 km from the airport, followed by a chauffeur-driven car bearing a tall, blond gentleman who followed us for all the time we were in Russia and who was said to be a member of the KGB. We stayed in the same hotel as the one the party heads stayed in during conferences and parties. We were also treated like important officials: the room with en suite bathroom also had a living room and kitchen. At night the temperature had reached minus 37°C. The following morning they came to pick us up in two black cars and we went

to the factory where the General was waiting for us. It was a large factory, which numbered 10,000 workers before the fall of the Berlin Wall; it produced arms and household appliances, but the most interesting thing was that it had built parts of the MIR space station. Production at the factory was practically at a standstill and work was continuing only in a few sections, probably thanks to the state contributions made available for the MIR project. The General was very complimentary toward us. His office was very warm and he regulated the temperature by opening and closing a small window. It had been 140 years since the thermometers had last touched the temperature on that day: minus 40°C! The air came from Northern Siberia and was freezing. The smoke which came from the central chimneys was white with condensation. My first thought was for our poor soldiers of Armir: there were so many victims of the cold during the battles on the Don and the famous retreat of the 100,000.The city of Stalingrad had been built from scratch by Stalin in memory of the place where the Russians had halted the Germans. Many factories rose up, providing work for as many as 200,000 people. The General took us on a tour of the factories where he wanted to set up the production of boilers. I had already decided to build the SILGAS model, which produced up to 60,000 cal/hour, since it was the most suitable for installation in far-off places, as it did not require assistance. That evening they took us to the Bolshoi theatre, then we dined at the General's house and everything

went smoothly. We returned to Italy and prepared the paperwork needed to sign the contract, happy that the deal could be concluded in a short time. We returned to Moscow to sign the contract and found the General dressed very elegantly waiting for us. He told us that, before signing the contract with us, he would have to obtain funding of 10 million dollars from the minister, for the maintenance of the MIR production and the setting up of the new boiler factory. Unfortunately, on his return, the General said with great regret that he had been unable to obtain any funding. And so, regrettably, the Russian affair ended. We had experienced real cold on our skin and realised that, after the fall of the Wall, Russia had a great desire to pick herself up from where communism had left her, but did not dispose of great financial means to do so.

... Iran in the Seventies; how *Ferroli* "stole" 2,000 boilers

In a mountainous area in East Iran, there is one of the most important copper mines in the world. At that time, it was in the hands of American companies who were developing the mine in order to increase production and were planning to build 2,000 houses for the workers. The specifications for the construction were drawn up in America and provided for 30,000 calorie cast iron boilers. I was in contact with an Armenian architect who lived in Tehran who asked me for an estimate for

the provision of 2,000 boilers. With his contacts, he would manage to help me get the order. We were taken aback as we did not build cast iron boilers, only steel ones. I turned to the *Sime* company which produced cast iron boilers to buy the boiler shell and then build a sample with hot water tank. The boiler shell came clad in a fine red cover and we added the instruments and the *Sile* trademark before sending the boiler to Iran.

Unfortunately, the order was “pinched” by the *Ferroli* company which made a better offer and so the story of the Iran boilers also came to an end.

... Iran, solar panels

In 1978, Iran was ruled by Reza Pahlavi and the country’s society began to become more Westernised. Everything appeared to be going well and banknotes in any currency could be exchanged for gold. I was in contact with an Armenian architect who asked me to provide an estimate for the supply of solar panels for fifteen buildings intended to provide accommodation for the imperial guards and their families.

It was a supply worth 1,500,000 US dollars: an interesting deal for *Sile*. I went to Iran several times until the order was perfected and received at *Sile*. We nearly jumped for joy, for an order of this kind in those years was almost a dream. We had just got ready to begin production when we received the news that Reza Pahlavi had fled, leaving the power in the

hands of Khomeini, who had far more serious problems to solve and thus neglected the solar panels for the imperial guards.

... Alleghe and *Sile* boilers

The sale of boilers in the Trentino Alto Adige region was difficult, as they mainly speak German, and Italian products are looked upon with mistrust by the inhabitants. I decide it would be opportune to launch a well-targeted and incisive advertising campaign in order to stimulate people to choose an Italian boiler.

I made the acquaintance of the engineer Nilo Riva from Alleghe, who asked me if I was interested in sponsoring the local team,“Hockey Alleghe”.

Alleghe is a small village of around 1,600 inhabitants situated at the end of the Agordina Valley. It has a beautiful lake which formed in the last century, following a landslide which blocked the course of the river Cordevole on its way down from the Marmolada glacier. The hockey team played in the First Division and its opponents consisted of many clubs from little towns in the Alto Adige.

I took up the offer of sponsorship for no fewer than eight seasons, before the defeat in the final against Bolzano, a town of 200,000 inhabitants, which was playing against a team from a small village with a tiny

population. It was an unequal match made more so by a few refereeing errors.

Sile has, nevertheless, remained in the hearts of the local population. I would like to thank the Riva brothers for the great commitment which they have always shown for the team.

... Luxottica

Anna and I went to see all “Hockey Alleghe’s” matches and Mr. Del Vecchio, the owner of Luxottica in Agordo, was always sat near us. We did not speak to each other much, but when Alleghe scored we cheered together. One day I learnt that he was going to replace the two 2,000,000 calorie boilers at his factory in Alleghe with ten boilers of 500,000 calories per hour.

This was the fruit of a new concept involving “the dividing up of the power of the large plants” in order to save on fuel consumption.

I thought to myself that he was a great entrepreneur and that he would have great success, which proved true in the following years: Luxottica is, indeed, the best-known glasses factory in the world.

... De Longhi

The history with Bepi De Longhi is different from the others in that it sprang from the friendship between our fathers, which went back to military service and their excursions in the Dolomites. Both were mountain lovers with photography as a hobby. I remember Dad developing photos in the darkroom where the images appeared as if by magic.

One fine day Bepi was born and he was baptised by my parents, while Bepi's parents were my godparents at my confirmation.

His mother called me "Sergietto". I have never had problems with the installation of boilers with Bepi and his companies and even today, now that he has become a great industrialist, when we speak on the phone, he always answers, even if he is extremely busy - maybe hurriedly, but he answers.

... Luciano Benetton

1968 was a historic year for diesel fuel boiler combustion: the combustion process no longer took place through the suction of fumes, but through pressure: that is, the diesel fuel combustion was premixed with air and fired forcefully into the boiler furnace. We did not waste time at *Sile* and immediately studied special solutions regarding furnaces and fume discharge: this was how the range of pressure boilers came into being, with models for both hot water and steam .

One day, a director of the Benetton company came to *Sile* and ordered a diesel fuel pressure boiler for the production of steam. It was intended for the wool-dyeing plant, for jumpers which came off the looms white ready for dyeing.

We eagerly prepared the boiler but, just at the crucial point, at the moment of delivery, they cancelled the order and chose one of our competitors in the province, who also provided the installation of the plant. I heard the competitor's boiler, once installed, often stopped working, forcing the dyeing plant to stop work at a time when Benetton was expanding rapidly. One day Mr. Aluppi, the same director who had cancelled the order, turned up at *Sile* and asked me to make an offer of a 12 bar central boiler system with three boilers of 1,200,000 calories, as they wanted to develop the wool dyeing plant. At this point , I replied that I would only carry out the study and make my proposal as requested if Mr. Luciano Benetton in person came to ask me.

It was summer and Mr. Luciano Benetton, who was the same age as me, turned up at *Sile* in a pair of kaki coloured jeans, a t-shirt and sandals without socks. We looked each other in the eye and he told me that he was the head of everything and that there would be no problem regarding any provision of boilers. Thus began a business relationship which

continues today with the installation of *Sile* boilers in *Benetton* companies.