Mapei presents

1937 - 2017 A LONG HISTORY IN 18 TOLD TALES



"Work and art are linked by passion and never to be separated" ${\bf Rodol fo \ Squinzi}$



1937 - 2017 A LONG HISTORY IN 18 TOLD TALES

By Fabio Longhi Illustrations by Carlo Stanga



About these stories

These 18 tales sing of Mapei: the ideas and the products the company has developed for major construction projects they have helped to complete throughout the world. The stories traverse a time-line of eight decades whose characters include by turns buildings, infrastructural works, Mapei products, famous people, even passers-by and, occasionally, eyewitnesses.

Each tale regales a snippet about Mapei, sending one's curiosity for details and fuller portrayal to the end notes. Each story has, of course, an imaginary voice, yet all are prompted by facts and real events. And all are written primarily to underscore one certainty: the high quality of Mapei's products.

A good read awaits you.

adione Sparli



Niguarda Major Hospital, Milan⁽¹⁾

The duke with a flair for the finishing touch

If you want to know what I looked like, visit the Pinacoteca of Brera Art Museum. There you'll find my portrait painted by Bonifacio Bembo. It's a profile, much in vogue at the time. My curly hair and prominent nose are ushers to an intuitively melancholy gaze. I was a valiant leader of men in my day. My cohort of mercenaries served the cause of several Italian princes. I later lay down my arms at the court of the Viscontis in Milan, taking up the reins of duke and diplomat. Machiavelli always had a good word for me and for the Treaty of Lodi I largely helped to broker between Venice and Milan. Behind me were many battles, much bloodshed and suffering. Perhaps that explains why I wanted a hospital for Milan. The city had only a few small infirmaries. It needed a large building, a major work, to replace them all and provide free medical care to its poor.

It was I, Duke Francesco Sforza, who built Milan's Major Hospital. It was 1456. It's still my pride and joy. It was a major undertaking and the Milanese were much obliged. Even today they call it Ca' Granda, Casa Grande. It instantly became a model for other hospitals. Yet, as time passed, a building designed for 288 patients could simply not keep pace with the growing population of Italy's most industrialised city. By the late 1800s they moved my hospital to a building beyond the Naviglio canals.

And I followed it all, keeping watch as silently as I was invisible. It was a good show, even if I say so myself. No word has ever been uttered about the Duke's ghost haunting it. Very

discreet, thank you. So, I've seen my prodigy grow, expanding in wards and specialist care.

There's one thing, though, that hasn't been mentioned. Most people know all about my valour in arms and artful diplomacy. Few, however, speak about my passion for building and its techniques.

Even as the blueprints of the hospital took shape, I wanted only the best craftsmen and products involved. I must confess, too, that I always tried to influence the decisions of engineers and suppliers all through the following years, say, breathing on the neck of foremen, dropping a sheet of paper that reveals a cost estimate...little things, really. So, when Mapei started renovations in 1938, you might say I had a hand in it. It was a young company then, but I recognise quality when I see it. After all, I've got more than 500 years' experience.

The façade needed new fire-resistant skin. Silexcement was ideal for the job. The steps needed a decorative plastic coating. Quarzolite, invented by the company's fabled founder Rodolfo Squinzi, was just the thing. And time has proved me right.

Since then Mapei has become an industry leader. And it still takes care of all the work my hospital needs despite the fact they now call it Niguarda. The other day Mr Giorgio Squinzi, who now heads Mapei, came to the Pinacoteca di Brera. He stopped in front of my portrait. I winked. He blinked. Wonder if he noticed.



Villa Reale, Milan⁽²⁾

Ere he saw Waterloo

Napoleon Bonaparte, as everyone knows, was quite a character. More volcanic than irascible, one might say today. He erupted easily even with his closest aides. But when they told him about the Villa, his curiosity was piqued. Off he went by carriage. They escorted him across the gardens. When he stepped down, there he stood before the façade in silence, right hand in his jacket, the iconic pose we customarily associate with his grandeur. He nodded. That was enough. The Villa would soon become his residence in Italy. He stayed there at intervals from 1802 to 1805, whenever circumstances brought him to Milan. Years later, when his mood turned melancholy during his exile on St Helena, they say he liked to recall it. A Neoclassic jewel, lavishly appointed, was perfectly attuned with the soaring music accompanying the magnificent balls reflected in its sumptuous chandeliers. 'Oh, my Villa Belgiojoso', he was heard to murmur. He would then recall the ladies, a passion he cultivated as much as he did his battles. But that's another story. Needless to say, Bonaparte might not have been pleased to learn that his Villa became the residence of Field Marshal Radetzky when the Austrians marched back in to the city a few decades later. But that's another story. When it came to art, though, Napoleon eschewed second thoughts. Instantly he recognised the expressive force and value of art as vessel for projecting imperial power. We can reasonably assume that he would have nodded in approval yet again when the city of Milan decided that Villa Reale would become its Gallery of Modern Art in 1921. GAM, as it came to be called, needed a face lift at the end of World War II. Its eyes had seen it all but were beginning to fade. The company the city of Milan awarded the contract to had no second thoughts either. It ordered Mapei's Silexcolor, its silicate-based mineral paint for external use. The system fit the façade to a tee. A legend soon grew up around the new skin.

It seems that it started with one of the Villa's elderly custodians. He was seated late one night after supper before a bottle of wine at a seedy tavern in the Navigli District. As usual, the fog was so thick you couldn't see more than two paces ahead. He said it would appear on nights just like this. Napoleon's ghost would stand erect before the Villa, right hand in jacket, its gaze cast on the renovated façade and nod in approval.



Pirelli Skyscraper, Milan⁽³⁾

Run, Johnnie, run

It's a pastime. They also say it's a drug. It's my thing. I like jogging, by myself. I'm no loner, have plenty of friends and like being with them. But when running, I like being on my own, feeling my body, the way it gladly strains as I take in the scenery. Uphill is the best. True, others see it tearing their muscles, heart and breath beating out of control. When you get to the top, though, what you see below is exhilarating.

Sure, sure, finding uphill runs in Milan is no mean feat. This is where I was born, grew up and now work. I'm an architect. Ever since my student days I've had a hero: Gio Ponti - architect extraordinaire, eclectic, severe. Italian design since World War II is much in his debt. Indeed, when you say Gio Ponti here in Milan, you say Pirellone. It was built sixty years ago, and for much of that span it was the tallest reinforced-concrete skyscraper in Milan and Europe. And when talk turns to Pirellone, I think of my father. As a quantity surveyor, he was part of the construction crew that built it. Dad retired long ago. But his memories of building the Pirellone are quite distinct still. When it was begun in 1956, he was young and full of enthusiasm. Every day before going home he'd wander round the site to see what techniques were being

used and how the work was progressing. He would always talk about the floating floor. The first in Italy, it's eighty-thousand square metres of linoleum and Pirelli rubber bonded to Masonite panels with Mapei's Adesilex 3. Dad also speaks highly and often of Mapei. He says that had it not been for that adhesive, even Gio Ponti might have run into hard-to-solve problems.

The Pirelli Skyscraper is close to my office. Ever since I started running and took to uphill courses, I've eyed it. Running to the top was my dream. So, when they held the first vertical sprint up the Pirelli Tower a few years ago, I was the first to sign up. These up-the-stair-races started in the U.S., home of the skyscraper, and later arrived in Italy. I wore a runner ID of No.1 on my chest the day of the race. I was thrilled. A run to the top of a building designed by my professional hero. It doesn't get any better. I didn't win, but that's beside the point. Mine was a run for the history of architecture. Unforgettable. When I came down after finishing, there were only a few onlookers still in the square before the Tower. To one side, a few paces away from them, stood my dad. Glancing upwards, his gaze was fixed on the Pirellone. A thin smile crossed his lips. "Let's go home. We've done it".



MM1 Underground Line, Milan⁽⁴⁾

They're laughing down below

Though now it's my cousins who work in the underground, I was the first. Then they called me Plastigum 56, now they say Planicrete. My date of birth was printed on the bags. Had it been up to me, I'd have attached something like a vehicle number plate too: MI for Milan. What a town Milan was in those days, the roaring '60s. The postwar years had yielded to an economic boom reverberating everywhere. What a place! It was a real pleasure to see the factories pumping iron from morning to night. Not for nothing do they call our town the country's motor. The fog was a lot thicker then than it is now. Me and me mates in the factory used to say the city 'was a jot greyish'. We worked at Mapei in the Cafiero headquarters. We enjoyed working the night shift. Saturdays were best 'cause no one worked on Sundays. We had fun and went as often as we could to the Derby for a few more laughs. No, no, not the football match that's still played regularly twice a year. I'm talking about the cabaret of that name.

The Derby was a famous night-spot. A host of comics and entertainers started out there. One laugh after another, it was. After the set on the way home at night, we'd talk about a lot of things. Even about travelling beneath Milan's streets. By the underground, the metrò.

That was my turf. I knew all about it. I told them that the idea was already in the air by the early 1900s when only horse-drawn hackneys plied the city's streets. The first real projects got to the drawing boards in 1920s, I said, explaining that the initial construction sites started in 1957. That was the work on the Red Line, the central Underground line of Milan. I kept saying to my friends "They're still digging now and don't need me yet. But you'll see, when the time comes to the screed admixtures...to the coatings for the ceiling and walls, that's when they'll call on me." I took my leave one night, saying something they've never forgotten: "I'm going home by metrò. I don't need a lift!"

And what a site it was down there. What a job! What fun we had! I knew all the punch lines the comics used in their acts at the Derby by heart. I repeated the jokes every day. Everybody laughed. A festive, curious crowd gathered to take the inaugural ride the day the Red Line opened on 1st November 1964. Some still remember seeing a small group in side-splitting laughter, their ears glued to the walls of the subway passage leading up the Cordusio metrò station stairs. It was my fault. Just couldn't resist it. I was telling them a joke.



Montreal Olympic Games, Canada (5)

How a Laplander won gold

They've always treated me well here in Montreal even if I don't look Canadian. I really look more Native American but have nothing to do with their history. When I've met some and we looked at each other and then in the mirror, we decided that the scholars who delve into these things are right. It may well be that Native Americans originally came from Lapland, my home.

I'm an expert when it comes to laying building materials. It's all about precision. That's why I got a call from the company contracted to build the track for the athletics events at the 1976 Montreal Olympics. What a thrill...the Big Games!

What races! Four years of gut-wrenching sacrifices and training play out in a matter of seconds or a few minutes. My job is to do things right the first time and fast. Luck had it that Mapei's Adesilex G19 made its debut at those Games. It's a two-component red adhesive that today is used for athletics and sports rubber flooring throughout the world.

I led the crew that laid the track for two weeks. Day and night, the work went on non-stop. We laid 400 metres of track in gruelling shifts. Straightaways, bends, everything had to be perfect. Adesilex G19 was always there and we counted on it. Opening day finally arrived and I was go-

ing off to attend the ceremonies. But that wasn't enough for me. I wanted to see how the track responded to the stress the runners put it to. I was given the opportunity by a fellow countryman...sort of...a Finn. We Laplanders are a bit Finnish, also a bit Norwegian, Swedish and Russian. We're a people but not a country. That's why we don't have an Olympic team.

The Finn was Lasse Viren. We'd met one night in a pub. He was very blond and friendly. Viren was also very famous. He won the gold in the 5,000 and 10,000 metres at the Munich Games in 1972. He wanted to repeat the performance for another 'double gold' at Montreal. No one thought it likely.

When I told him I'd built the track, he gave me tickets for both his finals and made a promise. "Tell me where you're seated in the stadium. I'll wave to you if I win. Some of the merit will be yours for building the track."

It never got a mention in the sports pages or annals of those Olympics. But, when Lasse Viren grabbed the gold again by winning both races, he glanced up to his right after he crossed the finish line each time. He was trying to catch my eye. Then he looked down, nodding at the track, and bowed towards me: me, the first and only Laplander to win two Olympic gold medals!



Financial Plaza, Phoenix, Arizona⁽⁶⁾

The Great Spirit will bring the waters

It's one of the few stories connected with Arizona's Valley of the Sun that Native American elders still know and tell their grandchildren. This is a place where the Salt River once flowed and today is the site of a big city non-Native Americans call Phoenix. Anyway, legend has it that, among the homes and big buildings, with the elderly enjoying the warmth of the sun and young careerists climbing the corporate ladder, there's a new spring flowing from the ground. There's no end to the water spouting forth... cool, refreshing, clear, sweet. It's a gift of Nature after years of drought and torrid temperatures. That was the story his grandfather told him the night before and he was still mulling over the next day. Nyol, not yet a teenager, was already lanky with gait to match, his jeans worn low below the waist, baseball cap reversed. He also has a penetrating gaze bespeaking the pride he feels for the Navajo blood that runs through his veins and colours his skin. The genes of his forebears are unmistakable. Nyol loved his grand-dad. He was Navajo through and through, spokesman for a people that sought to keep their heritage alive and hand down their customs and traditions. But he was just as thoroughly American, perhaps more so than many of the pale faces he knew and had met in his young life. He was full of vitality and grit, wanting to make the world his own. Later that day Nyol was walking by Fiesta Mall across the street from Mesa Financial

Plaza in downtown Phoenix. It wasn't one of his usual haunts. Big money and big business meant there would be few kids like himself. Not much fun in that. But Nyol had gone there on an errand. He crossed the street. That's when he saw them. He stood still: in front of the building were two beautiful fountains. It was obvious that they had just been completed. The construction site hadn't been fully cleared yet. The colours of the finely glazed tiles instantly reminded him of the colours of his ancestors. Bright, cheerful, strong. All in an instant. The legend was alive before his eyes. The water spouted forth. He bent over. It was cool and tasted sweet. No mistake about it. He ran home and told his grandfather in a torrent of words. Grand-dad Naalnish ('he who works') smiled. "No, Nyol, what you saw is a beautiful fountain not the spring of our story. I know because I was the foreman of the crew that built it. It's really a work of art because we used only Mapei materials: Kerabond and Isolastic for installing the porcelain-glazed tiles and Keracolor and Fugolastic for grouting tiles". It wasn't what Nyol wanted to hear. He nodded and left, wordless. What a shame, he thought. Then he stopped a second and wondered, "Why did Grand-dad tell me the names of the materials he uses on the job? He's never done that before. Those names he mentioned sounded like Indian words. Grand-dad is hiding something... That fountain is our legend!"



Zaventem Airport, Brussels (7)

The Principality of Building Materials

Inspiration began shaking our timbers the minute we saw the blueprints for the site. The area planned for the expansion of Brussels Airport was the perfect place for our enterprise. Create a free-trade entrêpot, a veritable country, within the airport. We'd call it the Principality of Mapei Products, like Liechtenstein, only more renowned, less snobbish. French, English, Flemish and Walloon would be the official languages. The population would be the more than twenty-million passengers that transit through the gates, and the national dish would be potatoes and mussels. The very Italian Mapei and the famed Belgian mollusc in proud nationhood. The future was ours. Joining the European Union would be our first step, of course. Then we'd negotiate the first policy decisions with Germany, France and the other member states. And so we did. We deployed our forces strategically. The elite Mapefluid N200 corps was assigned the foundation work. The specially trained Mapecem units took the screeds. While the Ultraplan contingent handled fast underlayment, the sappers Granirapid, Adesilex P25, Kerabond and Isolastic led the adhesives. The Ultracolor no. 10 and Keracolor shock-troops took care of the grouts. It was quite a campaign. The job site was exceptional: some 500,000 m³ of earth-moving, 240,000 m³ of concrete, 80,000 m² of granite, 27,000 tons of steel, 20,900 m² of windows. So, too the result: a new terminal built, the original renovated. A great place to take off and land in the centre of Europe. Beautifully finished, convenient, a pleasing air about it. It was a dream come true. And it was our downfall. The dream of seizing power vanished. Instead, we seized the day, wandering through the terminal, having coffee in the bars, stopping for purchases at the duty-free shops. We were carefree, even chatting up the hostesses as they passed by. The principality, statehood, wasn't even a blip on the radar screen.

All for the best, really. We can still see our people happy to fly off and land here at Zaventem. It's a just reward. Then there's that little big favour the airport authority granted us. The two notes you hear in overture to every public announcement in the airport introduce the anthem of the Principality of Mapei Products. So, the next time you go there, put your boarding pass on a chair, stand at attention and place your hand on your heart as they sound. It'll make our day.



Gallery of the Vatican Apostolic Library $^{(8)}$

The Vatican Musketeers

It was a day like any other. Some 15,000 persons tread on us. The same routine, day in, day out. But it's never boring. We know by the sound whether the footfalls are those of men, women, the young, the elderly.

Some of us are so adept they can even tell you their nationality: 'She's Japanese. That's easy, part of a group'. 'Now this one's from the U.S., a Native American by the soft tread". Real pros, no argument there. Our best friends are the clavigers, from the Latin for keepers of the keys. When they open the doors in the morning and close them at night, they stop to chat a while. Their sound is unmistakable: it's a metal-flourishing clinkity-clank. They let us in on the latest curiosities, gossip and even palace leaks. We all know the Vatican as a magnificent but also a bit mysterious place. One curious tidbit we've learned is that it takes 2,797 keys to open and close its doors! Forgive us, St Peter, but you're an amateur by comparison... Oh, by way of introduction, we're the floors of the corridors you walk down to the Vatican Library. Confidentially, we call it the VAL. The path we lay takes you to the entrance of an extraordinary collection, the 'Books of the Popes,' arrayed over 1,700 square metres of floor space. The atmosphere? The artistic and religious apogee of the 1500s. Those were the days! Now, the linoleum that covered us was laid down in the 1950s. The beating it's taken over the years since is, quite frankly, rather unbecoming of such a place to say the least. Steps had to be taken. Quick, sure-footed, efficient. That's how we became friends with Mapei's products - Mapecem, Granirapid, Ultracolor, Mapeflex PU21. A fearsome foursome. Confidentially, of course, we call them the Musketeers. We once heard them arguing about who was to be D'Artagnan. Then a Swiss Guard appeared and they fell silent. They didn't want anyone to hear them. Nary another word. But we can say that the job Mapei's products did with a bit of help from the master tile layers was nothing short of fantastic. It took a mere 40 days. 'Too quick' someone said. 'What's all the rush' piped up another. The chorus grew. It was the furniture. The pieces have been there for 500 years. They're not used to change, sudden or otherwise. What a sight it was when they opened the doors to the public again. Satisfaction all round. Thousands looked down as they walked through the corridors, ignoring the elegant coffered ceiling. We, the new flooring, were the star attraction. The frescoes, you say? They complained a bit but then took it in stride.



Three Gorges Dam, China⁽⁹⁾ I slowed time

You make lots of friends on the shelves in warehouses when you travel widely like I do. Having a truly exotic and fascinating tale to tell doesn't hurt either. They make me repeat all the time.

It all started when NASA calculated that, with a little help from me, the spin of the Earth slowed down. A day is now 60 billionths of a second longer since they built the dam...

That rather astonishes my listeners and they often start thinking about what to do with all that saved time on their hands...not quite the right attitude, really.

Then they want to know about China and the Yangtze, Asia's longest river. I have to tell them that never again have I seen so many people working together to build something. Over in China, there were a few superstitious people. They kept saying it wasn't right to build something bigger than the Great Wall. The ancestors would be horrified. But the job needed doing. The Chinese had been toying with the idea since 1919. They even said that the 'Great Helmsman,' Mao Zedong, drew up sketches and planned projects when camped for the night during the Long March. It's no secret that China's hungry for energy. Clean if possible, thank you.

What could be cleaner than 84,700 GWh a year generated by a dam 185 metres high and more than 2 kilometres across? This is where my story gets moving ...anticipa-

tion is the thing. Everyone's attention is riveted on what comes next.

There was a problem to solve at the job site. A big one too. It had to do with the dam's spillways. A formula had to be found for high-performance concrete. It had to have high resistance - just think of all the stones and debris a river like that drags along - and high, fluid consistency. A lot of trials were run on admixtures here at our company. At the end of the day, I, Mapefluid X404, was the best. It was great. I was ready to pack and head to China. Not so fast, they told me. The Chinese wanted to run some trials of their own just to be sure.

So, they formed a committee to run tests on other products. Let me tell you, it was like the finals for the world championship of admixtures. The competition was edgy, the stakes were high. But when the going gets tough, the tough get going. That's how I played it. Even the Chinese pegged me the winner.

A few years have passed since then and a lot of water has gone under the dam with my help. Proud is but a word. My colleagues treat me with all due respect, consult me on technical matters and, naturally, ask me to translate words on the signs of Chinese shops here in Milan. I've even become the leading expert on spring rolls in Mapei's warehouses. It's part of the job now too.



Teatro alla Scala, Milan⁽¹⁰⁾

Butterfly in Milan

My mother put the passion for opera in me. Ever since I can remember, our home was always full of music and lyrics floating in a language that always seemed sweet and beautiful to me. And a night in early December was always something very special in our family. The table was set with our finest dinnerware and the dishes of sashimi, sushi, ramen, udon, soba and all the rice you could eat kept coming from the kitchen. So too did the saké flow. The music and song of an opera fluttered through the house. Verdi and Rossini were mamsan's favourites, The Barber of Seville most of all. I wondered why.

We were the only Japanese family that celebrated the season-opening night at La Scala. So, now you know why my relatives felt little surprise when I started singing lessons and became an opera singer. Nor did they bat an eyelid when I decided to depart for Milan to study voice at 18.

When I first arrived, everyone always smiled coyly when they met me. I wondered why. Kaori's a common name in Japan. No mystery there. The revelation came later. They told me a young actress then appearing in a TV commercial for a well-known brand of cream cheese had the very same name.

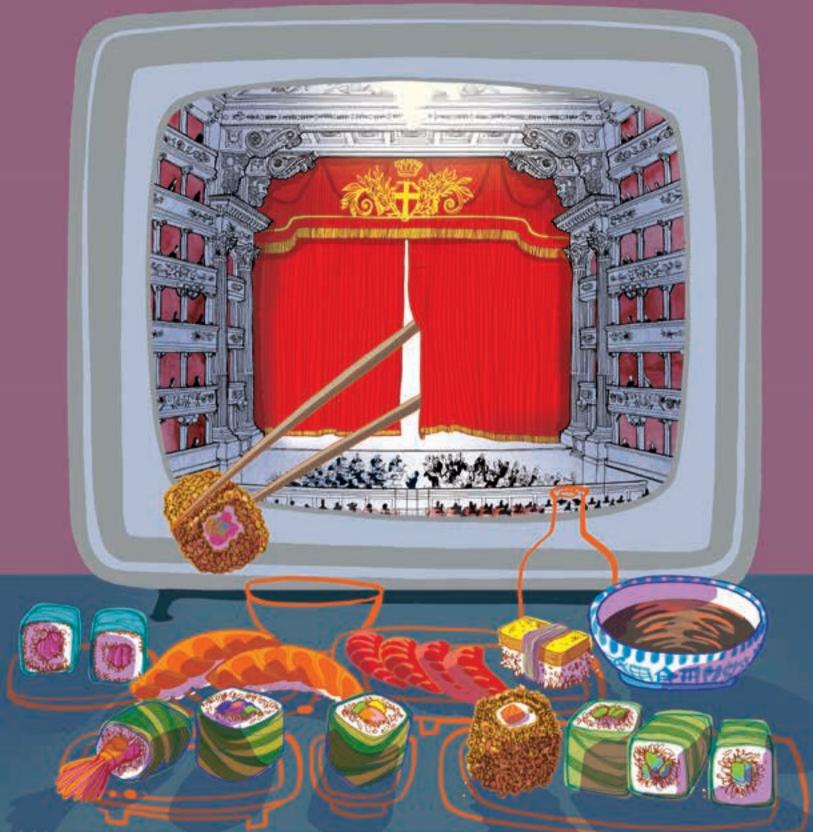
My years in Milan have been very happy ones. I learned the language and became a professional soprano. The city and its landmarks are mine now too, part of me. I married an Italian and we have two children. Yet there was one thing I'd never done until recently - enter La Scala. You probably think it's crazy. But it is so. La Scala's like a temple to me. Something sacred, requiring reverence and meditation before approaching it. And even then... Just think, I've performed in every opera house in Italy but never set foot in La Scala.

Then one day, passing by the square the opera house stands on, I saw a construction crew dismantling some scaffolding. Curious, without thinking twice, I walked over to read a big sign next to the building. It transpired that one of the main suppliers engaged in renovating and restoring Teatro alla Scala had a name pronounced just like a Manga character's - Mapei.

I soon learned that Mapei is very Italian and very international. And that it's very important. And that, incredibly, 40 of Mapei's solutions were needed to complete such extensive, complex work. It seemed like the sign of fate. A serendipitous link to my life in Japan.

Then it dawned on me. I suddenly realized what day it was. I ran home, made a few phone calls, and a close friend with connections in high places got me a ticket.

There I was, walking into La Scala on opening night. Mapei did a magnificent job. I called my mother in Japan later. It was early morning there but she was already up cleaning the kitchen after her La Scala dinner the night before. It was wonderful, she said, just like every year.



Solomon R. Guggenheim Museum, New York (11)

Walls speak, too

We began suspecting something else was amiss early in 2006. When it was closed to the public in the evening, a group of people would ever more often be standing there without as much as a glance our way. They kept touching the walls, taking small core samples, inspecting the building's structural parts, noses even wrinkled every now and again.

We started worrying. So, a couple of Kandinskijs called over two custodians, the ones with the sullen look that makes you think they sing Ochi chyornye at Christmas. Anyway, Russian emigrès always see eye to eye. They were nearly speechless when they found out. So were we.

The Guggenheim had problems. Little they were not. The six-storey building on Fifth Avenue Wright designed with its signature spiral ramp - you know, the museum even non-art lovers go to visit in New York - was not at all well. Cracks caused by seeping penetration of carbon dioxide, oxygen and water had formed, deteriorating even its skin.

Something had to be done. We all got together that night, as we're wont to do when on for a chat. This time was different.

The Rousseaus, Braques, Picassos, Légers, Mondrians, Klees, Pollocks and all the others were worried too. Each showed it in a different way. Colours flared, lines swelled. But no one had yet come up with an idea when canvassed.

Then the Modiglianis and Burris spoke up. "We know of an Italian company. It's got a subsidiary here in the States called Mapei Corporation. We can count on them. They're Italian too. Let's get them in."

The decision to hire Mapei was approved by the museum's board and foundation and by New York-based Integrated Conservation Resources. The work was soon under way. The task was formidable. Mapei brought in Planitop X, Elastocolor Rasante, Mapefer, Mapelastic, to name just the big trouble-shooters.

The upshot? Amazing. Two years of work ensued and by 2009 the museum was as good as new. You're probably wondering how a collection of paintings managed to convince the Guggenheim's board to award the contract to Mapei. Easy. Art communicates. It's always got something to say. It speaks to everyone. People have ears, too.



Global Seed Bank, Svalbard Islands, Norway (12)

Interstellar admixtures

We were doomed. Climate change was killing all life on our planet. Our water reservoirs and all the other natural resources needed to sustain life as we knew it were nearly depleted. Our scientists saw no relief. They said that within the next two generations the planet would no longer be habitable. That's when we started observing Earth. It's a planet that's a mere 100,000 light years away, much like ours but inhabited by rather strange creatures. Most have four limbs and a brain housed within a sphere-like object in the upper part of their bodies. Curious, really. We've seen them evolve quite a bit in the last 500,000 years or so. We've watched them light the first fires in the savannah and send rudimentary craft into space exploring their tiny solar system. However, one morning here, which lasts approximately ten Earth years, we learned something new. One of our youngest researchers reported something that had escaped our notice. It instantly aroused our interest. The earthlings had just completed building something we found quite extraordinary in a northern part of the planet they call Norway. It was a seed bank. They designed a huge underground, vault-like structure as a repository for as many as two billion seeds that could eventually grow plants. It combined both the history and the future of food and other crops. It was a bolt out of the blue, so to speak, and sparked a lively debate among us. We wanted to know, of course, how they managed to build such a complex structure that appeared to be so well adapted to our ever-colder climate. It was suggested that we make ourselves visible. Unheard of. Something we'd never done before. Even if we did, seeing us would surely scare the very short daylights out of them. They would also have proof that what they've been calling 'aliens' for a century on their blue planet really do exist. The young scientist who made the discovery came up with an idea to resolve the dispute. He said there was no need to 'go public'. The answer was the UTT, Mapei's Underground Technology Team. It was decided: we had the means, they had the know-how. Our galactic transporter beamed all 40 members up. What a great squad. Once the initial shock wore off, they told us how they managed to overcome the problem permafrost poses in that area on Earth and revealed the techniques they employed to construct the enormous underground vault. Admixtures for concrete, alkali-free setting accelerators, liquid retardants, and all the rest Mapei produces. We listened and took notice. Then we set about producing the same materials. But they weren't the same. That left only one option. Make them on Earth. We've been running a manufacturing plant at the North Pole in a joint venture with Mapei for some years now. Our spacecraft shuttle back and forth every week to deliver the products to our planet. They're invisible, like us. The air around the craft shimmers slightly on take-off and landing. It's the only trace they leave. No one's ever noticed. I'm one of the pilots ferrying the cargo we'll use to build a phytogenetic vault that will save our people. Every time I leave Earth behind and head for the stars a feeling of pride and melancholy grips me. I envy you. You've got the most beautiful aurora borealis in the universe.



Marina Bay Sands, Singapore (13)

At your service, Miss

I'd just flown in from Cambodia after a photo reportage job on diamond prospectors working the pipes in north country mines. It's a hard-scrabble life for the Khmer miners. They've got to wriggle down in to the narrowest of tunnels where they dig through dust-belching red earth on ten-hour shifts for a meagre wage. Singapore's airport is spacious and posh, and my connecting flight to Paris was still hours away. So, I grabbed my mobile and started tweeting, always putting the hashtag #singapore on every post. Sorry, forgot to mention that I've got quite a few followers, both at home in Italy and around the world. I'm young, attractive and roam the globe on freelance assignments. I've got friends scattered here and there on every continent. Routine. What wasn't was the tweet received from the Marina Bay Sands resort. It was an invitation to visit and have lunch as a guest in one of the many restaurants it features. It surprised me at first. Then it dawned on me. This was sophisticated marketing. They monitor all the #singapore tweets posted and pick out those for influencer targeting. They see who you are and send an invite if your profile fits. They hope you'll take a few pics of the resort and then tweet them to friends. It's free publicity, or nearly so. Not bad. Congratulations. I accepted. It was crazy. I went to the Air France desk, turned on one of my most-charming smiles, got the attendant to book me on a later flight and grabbed a cab. It was a one-off chance to see a masterpiece of Moshe Safdie, the architect who also designed the Holocaust Memorial

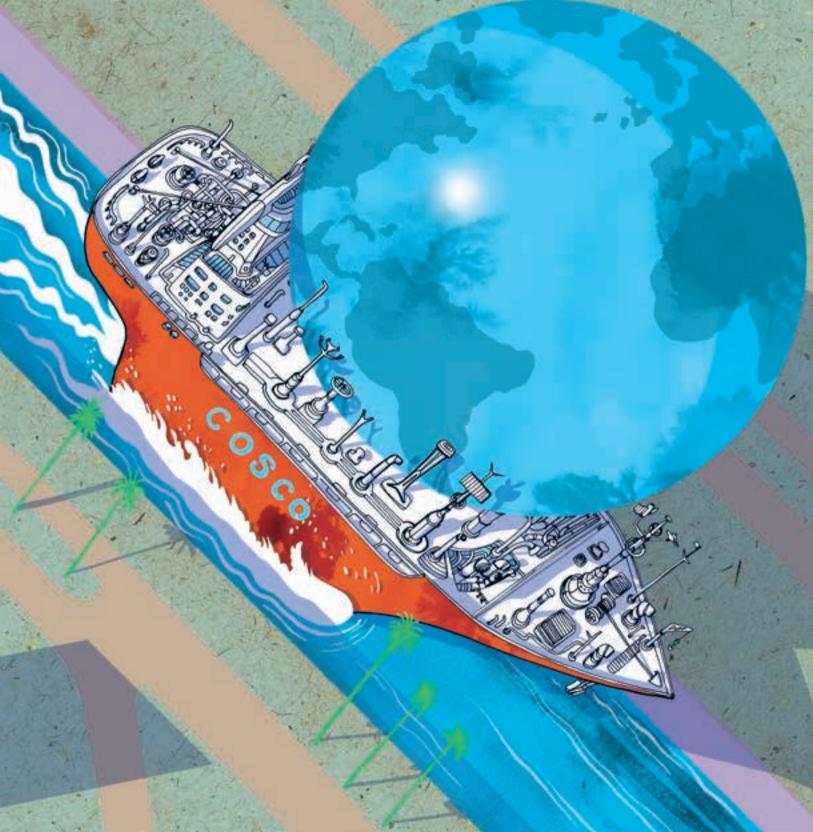
and Museum in Jerusalem. I knew it was going to be an extraordinary sight and couldn't wait to see it. Eye-opening is not the word. Even as we got close, I was dumb-struck. There they were: three 55-storey towers linked atop by a 10,000-square metre Sky Garden perched 200 metres above street level. The terrace held tropical gardens, jogging paths and 150-metre Infinity Swimming Pool. The pool was my target. The receptionist greeted me with a warm welcome. Then I asked to go up and take photos of the pool. So sorry, Miss, but the pool is for registered hotel guests only. I'm sure you'll understand. But you could book a suite now...I look at the prices, not for me, and smile. That was definitely not anticipated. A unique opportunity lost forever. I was about to say thank you and turn on my heels when the flash hit me. A friend once told me that the resort had been built using a lot of Mapei materials for waterproofing, for the walls and floors covering and so on. Behind all the marble, Ardesie and bamboo was Mapei. The business diary that always travels with me is from Mapei. That friend gives me one every year. I took it out of my bag and non-chalantly let the receptionist see the logo. Miracle. His expression changed instantly, as if he'd seen a diplomatic passport. He escorted me up to the pool, winked and said, 'Miss Mapei, stay as long as you wish and see whatever you want'. My friends have called me Miss Mapei ever since. Now, whenever I'm between flights in far-flung airports while continent-hopping, I expect an invite. So, what are you waiting for?



The New Panama Canal⁽¹⁴⁾

Stowaway

It's easy to hide in a container ship that's 300 metres long and nearly 50 wide. The hard part is getting on. But that's my secret. I can tell you, though, that I did it in the Marshalls, a group of islands in the Pacific between Oceania and the Americas. I didn't just hop on any passing freighter. No, indeed. As planned, I boarded the Cosco Shipping Panama, a vessel flying the flag of the People's Republic of China and bound, as its name suggests, for Panama. It was all about a bet with Pedro to see who'd get to sail on the first ship through the Canal's new sea lane and locks. The voyage took a few weeks. I'd taken some stores and books, mostly engineering volumes, to keep me company below deck. I'm a student, and major hydraulic construction works intrigue me the most. I'd been following the new Panama Canal extension closely ever since starting university. This project was really gripping. Even before it became operational, it would be the most ambitious of its kind the world has ever seen and its import is of such magnitude as to change global trade as we know it. The numbers speak for themselves: seven years of work, a thirty-thousand-man construction crew, a \$5 billion investment budget. The bet with Pedro went back several months before my stowing away. I started by contacting Mapei, the Italian company that won the contract to supply the builders with the admixtures for concrete and the synthetic membranes for waterproofing the auxiliary lock chambers. I exchanged various emails with the R&D office and technical-specs staff. I wanted to know what they were doing and how they were handling the challenges that cropped up day after day. They were always very courteous and helpful, replying to all my queries. Pedro was the best contact. He's a Mapei engineer who works in Panama. The bet started when I wrote that I wanted to be on the first ship that sailed through the new lane when it opened. Pedro wrote back saying it was impossible. Not for me. Want to bet? It took Pedro a couple of days to answer. But when he did, I quickly hatched my plans. The morning the ship started approaching the Canal's new lane I climbed up to the foredeck. The crew members were so busy getting everything ready they never noticed me. I went over to the railing and waited. The hour of victory was at hand. The ship and I were the first to cross the new Canal lane at 7:48 am on 26th June 2016. Pedro was standing on the dock. Months before, he'd sent me a Mapei brochure to wave as the signal. When he saw me, he was as incredulous as he was exuberant. He'd lost the bet but gained a co-worker. The stakes were a 6-month internship at Mapei prior to attaining my degree. My dream had come true. The sound of the ship's horn lasted no longer than 2 minutes as it sailed through. The sweet taste of victory is still with me.



Hamad International Airport, Qatar (15)

Shiva and Ganesh in overbooking

There are more than half a million of us from India here. We're the biggest ethnic community in Qatar. I come from Rajasthan in North India. I've been here with my family for many years now. I grew up here and will marry Pranet in a few hours' time. I fell in love with him at Hamad Airport in Doha, the country's capital. I'm employed at the airport. It's a beautiful place. A genuine architectural jewel. I'm a receptionist at the information desk. I'm fluent in a number of languages and can manage a lot of others. Pranet's a pilot with Air India. He often used to stop over in my airport. That's how we fell in love, more or less. Things didn't go all that well at the beginning, though. You see, most Indians must ask their parents for permission to marry. The problem was that our parents didn't want to give it. It's a long, involved story and, even if I explained it, you still wouldn't understand. Not really, believe me. It all has to with caste. It's something that officially doesn't exist in India any more but continues to hold sway over the lives of millions of its citizens. So how did we manage to convince our parents to consent to our marriage? We took them on a tour of the airport. Pranet's mum and dad had never travelled outside of India and mine, though they live in Qatar, reside a long way from Doha at Al Jumaliyah. Pranet and I spoke with our parents about the airport, describing it as a temple. A beautiful Indian temple that's dedicated to one of the many divinities that accompany all Hindus like us through our earth-bound existence. Sorry, I was about to forget two important details. Both our fathers are con-

struction workers. They're very good at what they do and take a lot of pride in their work. The other detail is that I met a person in Doha who's become a friend. Her name's Veronica Squinzi. She's one of the top executives at Mapei, the group's global development director. That's the company that supplied a great many special building products that went into the construction of the airport. My airport and hers. Veronica acted as the tour guide for our families. Veronica showed them how beautiful the terminal is, carefully explaining the construction details and how the materials employed achieved such an extraordinary result. It worked. Our fathers came around and our mothers were happy. So were Shiva and Ganesh. I keep them on a shelf at home. When I returned that night, they smiled too. I'm beginning to get ready for the ceremony. I'll put on the traditional red and green bridal sari and then off to the airport. I can hear you saying 'What'? Yes, that's where we'll be married. Veronica got permission from the airport's management to hold the wedding and reception festivities in the Arrivals Hall. That's where Pranet and I will complete the 'seven steps' round the holy fire. It's the rite that, as tradition commands, will make us husband and wife. Then what? Music, arms raised high, dancing and a lot of fun for everyone. Tomorrow's the big day. Let me suggest that when you arrive in Doha tomorrow, follow the sound of the music. It will transport you in to a Bollywood film. Join in, don't hesitate. Indian marriages are unforgettable. Take the word of your friend Amrita.



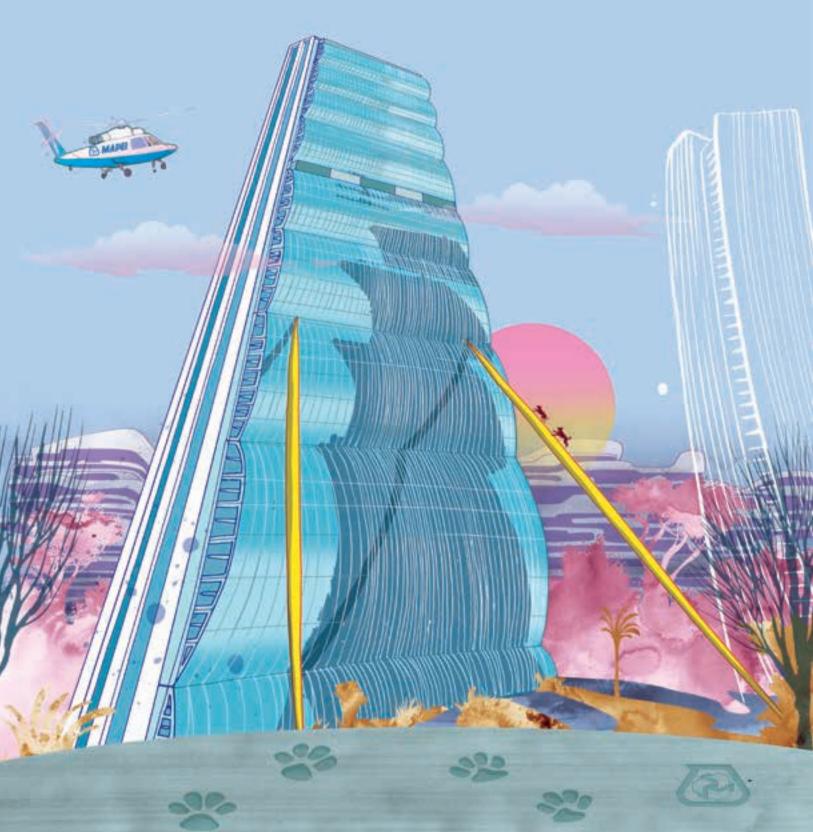
Isozaki Tower, Milan⁽¹⁶⁾

The sign of love

Her name is Kira, and a beautiful lass she is. It was love at first sight. I'll never forget that day. We were in the lawns over there, by the old Milan convention centre. I watched her prance in, elegant, dreamily, it seemed to me. She looked around for a quiet corner. I approached her, no sense in wasting time, put on my debonair smile and said, "I'm Jpeg, a pleasure. What's your name?" A burst of laughter was all I got. "Jpeg! What kind of a name is that?" "It's what the kid at the shelter called me. He's a computer freak. What can I say? Go on, it's not bad when you come to think of it. By the way, not a bad laugh you have either..." We've been together ever since. Time for introductions. We're both dogs, medium build, pure mongrel, strays and friendly. The street's our home and world. We're well liked in the neighbourhood. And, like everyone who prowls the streets, we've always got our ears to the ground. The shop-keeps, other dogs and even a fair-minded cat bring us up to speed on the latest doings in town.

Come to think of it, there's been a lot news lately here in the Portello district. The area's up for urban renewal and some real smart buildings have already gone up. They call the project City Life. Nice name. I've got a strong weakness for construction sites. Always have. Don't really know where it comes from. I'll sit for hours at a stretch watching a crew at work. Having an opposable thumb is a wonder in itself. You can do all sorts of things with it. Guess it's just envy... Of all the new City Life buildings, one in particular caught my eye. It's the one designed by

the Japanese architect, Arata Isozaki. A while back I overheard some of the site crew talking and realised that just laying the foundations for that skyscraper would be no mean feat. It needed a special kind of concrete: a mass concrete mix that was cast in one continuous pour. Thanks to Mapei trucks. I heard a new noise, looked round and stopped worrying. A string of Mapei cement mixers were pulling up loaded with a new admixture devised specially for the job. Some days later I heard them talking about a night shift. The first pour would take 35 hours non-stop. The cement would keep flowing under the lights. It was going to be quite a show. Raw power packed with muscular efficiency. No time to waste. The set-up was perfect. I told Kira this was going to be our night, just for us. I took her to the site, the moon and the stars were more than cooperative. I'd even taken along a couple of spare ribs 'donated' for the occasion by the butcher in the next street over. There we were, watching the cement being poured in with Mapei's admixtures. That's when I caught her eye. I asked Kira to marry me. She let out a yelp of joy and I started wagging my tail into a spin. Now you know why we think the world of the Isozaki Tower. Tall, luminous, rising forever is the impression you get. Kira and I visit often, keeping out of the way so we don't disturb anyone. We go there, though, to look down. We want to see the paw prints we left that night in the fresh cement by the Tower's north corner. They're a sign of our love. They're still there.



High-Speed Rail, Base Tunnel of the Mountain Pass Deviation, the New Badia Nuova-Aglio Tunnel⁽¹⁷⁾

Tenderloins and tiles

I was there in 2001. Not alone, mind you. We'd gathered here in the Chianti district for the funeral of 'Florentine'. It's our celebrated tenderloin. The authorities had just banned its sale. It was the time of the mad-cow disease scare. Imagine how we Tuscans felt that day! Indeed, we'd made it an art and celebrated it for a century or more in a pagan rite over the glowing coals of fire. Then it was gone, almost as quickly as it had appeared. They call me Maestro here in Barberino del Mugello. People come from everywhere, far and near. I still serve the best tenderloin for miles around. My restaurant's up in the hills hugging a major mountain pass. That reminds me. They were talking about the Mountain Pass Deviation even then. A fantastic project! A new link between Bologna and Florence to speed up the motorway traffic over the Apennine hump that was becoming an endless queue because of all the heavy-duty vehicles that downshift to a slow 30 km/h to climb up to the tunnel through the pass. More than a few of my guests were knowledgeable about it. I learned a lot listening to them. Engineers, members of the skilled crews, quantity surveyors and others working on the job used to eat here. The finer points, the technical specs, and the challenges were the key topics of their conversations. There was one part of the job that intrigued me the most: the Badia Nuova-Aglio link. It's a twin-bore tunnel. Tunnels usually get a few coats of paint inside. Not this one. It was to be finished in porcelain-glazed tiles. That kind of skin has more than a few advantages, at least on paper. Lower maintenance costs - it needs only periodic washing - and brighter in-tunnel lighting to begin with. Yet there was one big drawback. You

needn't be a construction expert to see that tunnels are convex structures. Finishing one with tile-faced slabs is a great idea. But it's easier said than done. You need to come up with a special adhesive. He'd been coming to the restaurant for a few weeks by then, always sitting at a table in the back, always lost in thought, whether alone or in company. We'd developed a familiar rapport. The routine banter between owner and customer about a news item, a one-liner, a laugh that puts people at ease. It's part of my job. When he walked in one night for supper with colleagues, his usual pensive-drawn expression was gone. He was smiling, eyes bright, at ease with the world. I didn't say a word. It might have broken the spell. I knew he was working at the tunnel site but never dared to ask him about it. He and his companions stayed late. There was a round of toasts to something or other. A few minutes later they got up, said their kindest good-byes to all the staff and me and left. I was curious. I turned to Gino, my longtime head waiter and foremost customer expert, "Do you know anything about that young man who's been coming here lately and was partying with his colleagues after dinner tonight?" "Boss, you mean you don't know? He's Marco Squinzi, the head of Mapei Company's R&D team. He and his group devised a way to lay the tiles in the tunnel. It's a strong, slip-resistant yet flexible cementitious adhesive called Keraflex Maxi S1". I was stunned. I ran to the kitchen and asked what the diners at the back table had ordered. "Florentines. Tenderloins, nothing else, they said. The very best. And they ate every morsel. The funeral rites were duly observed. Not a scrap on their plates. A good sign".



2017...

Place de l'Hôtel-de-Ville, Vincennes, Paris (18)

Watermelon first

My brother had it all figured out right away. He realised after finishing his studies he could make a go of it on Tinos, the island of the Cyclades archipelago where our parents live. Close to Mykonos, Tinos is as beautiful and wild as the former but somewhat less touristy. My brother Takis lives like a king. He fishes for squid in winter, rents scooters to tourists in summer when he's not chasing German girls, and savours a glass or two of ouzo with cucumbers when the sun goes down. Not a bad life. Not for me. I wanted to see the world. I managed to build a small forwarding firm with a little luck and a lot of hard work. My 5 heavy-duty vehicles criss-cross Europe's roads carrying all sorts of goods we export from Greece - yogurt, fish, ceramics, produce. Whatever needs to travel, Vangelis & Moras Trans delivers it where you want it. It all happened in July 2016. The caller said it was an emergency. 'There's a construction site at Vincennes on the outskirts of Paris. The work's been halted because the quartzite slabs ordered from Greece are still in the Port of Piraeus. They tell us they can't be loaded. See what you can do'. I'm the curious sort. The first thing I did was to ask for more input about the site. The town-hall square was being repayed. I put the phone down and went to see a couple of engineer friends. They told me the quartzite can only be properly laid with Mapei's Mapestone system. The name Mapei made me sit up. It's an Italian company and has an office right near my warehouse. It's the best in the business. Then, too, Italians and Greeks are nearly cousins, a bit removed maybe, but still... I called back and was off to Piraeus to see about the quartzite. If you know anything about it, Pireaus is not exactly the place you'd

recommend for leisurely tourism. It's a sprawling Tower of Babel and not without a dangerous corner or two. Anyway, with not a little help from friends, I finally managed to pull strings and locate the quartzite. A Customs officer told me what happened. Watermelons were causing the delay. They're green like quartzite but a lot more perishable. The Port authorities had decided that the melons had loading priority all the way through September. The catch was that they never issued an advisory warning. I was on the phone in a second. I located my trucks, had our customers advised of a slight delay in deliveries, got our vehicles in, had them loaded and hopped in too. We were on the road to France in a couple of days. The caravan was carrying a hundred or so quartzite slabs ready to be laid with Mapei's Mapestone. It took us only 4 days to get there, including a pit stop at a bar in the 20th Arrondissement for a glass of its famed pastis. When we arrived, everyone was gathered at the edge of the square to greet us: the builder, the architect and Mapei's mixing silos. It was July the 30th and the heat was unbearable. I got out of the lead truck and walked slowly over to the welcoming committee, saying "Who do all these watermelons belong to?" The look on their faces instantly hardened, their eyes directing a flash of anger at me. It turned to a smile almost as quickly when they saw the quartzite slabs being unloaded. They thought they knew I'd been kidding. Not quite. My timing was perfect. I went to a small fridge in a truck, took out a watermelon, a knife and gave everyone a slice. Even to the mixers full of Mapestone. They're mad about watermelon.



End-Notes

1.

Mapei has been a supplier for major works undertaken at the Hospital since the end of World War II. The latest was the construction of the helipad for emergency air rescue completed in 2013.

2.

Mapei has been back more than once to Villa Reale. The latest works have been carried out in 2003/2004 and 2012/2013.

3

Mapei has been a frequent visitor to the Pirelli Skyscraper since 1956. It took part in the complex restoration works needed to preserve and upgrade the building's structure after a light aircraft struck it in 2002, causing the death of 3 people and injuring 70. Mapei was again at the site in 2005 to restore the glass mosaic façade, and to work on the internal and external floors and for the static upgrading of the reinforced concrete structure. Redoing the tower's interior flooring was a major job of its own. The primary requisites were preserving the features of its 'historical character', refurbishing the chromatic scheme to its original sheen and upgrading durability. Fundamental to the entire job was the laying of the rubber flooring that Gio Ponti had so painstakingly designed in the 1960s.

4.

From the first Red Line in 1960s to the Yellow in the '90s and the Purple today, Mapei has always supplied the products the contractors who have built Milan's Underground could count on. Indeed, Mapei has been a site-partner for the construction of underground systems throughout the world, devising specific approaches and supplying special admixtures needed for tunnelling.

5.

The Games proved to be a prelude. It was from Canada that Mapei began to extend its operations around the globe in 1978. It established the first of its foreign manufacturing facilities at Laval, a suburb of Montreal, that includes an R&D laboratory for resilient floor and wall coverings and for products for the installation of ceramics.

6.

Arizona's a key arm in Mapei's international reach. The Phoenix suburb of Tempe became the headquarters for its continental expansion. It too has one of the 18 R&D laboratories the company operates throughout the world.

7

The Liège suburb of Grâce-Hollogne is Mapei's Benelux warehouse and, since 2016, the site of a training facility for its materials.

8

Mapei was the recipient of the prestigious Coverings and Installation Award in 1977 for this job. The Vatican has been the site of other efforts undertaken by the company over the decades before and since. These have included Redemptoris Mater Chapel in 1996, The Fountain of the Mint in 2000 and the Fountain of the Vatican Gardens in 2010. Rome has become a focal point of Mapei's business interests because it is the capital of Italy's government and home to its major construction companies. The headquarters of Mapei's Rome offices includes a Specification Centre for designers, installers and industry firms.

9

Mapei decided to acquire a Chinese company for local materials manufacture and even more efficient supply and services for a project of such magnitude. In doing so, Mapei also wanted to make sure that the ethical principles underpinning its corporate philosophy regarding personnel safety and environment concerns would be firmly installed along with its products and know-how.

10.

The ties binding opera and Mapei are in the company's DNA. Founder Rodolfo Squinzi was a true music lover. Today the company is a founder and permanent member of La Scala subscribers and current head Giorgio Squinzi sits on its Board of Directors. The family tradition is a work in progress as every year Mapei invites friends, customers, employees and influential personalities to be its guests at La Scala per-

formances. It's the company's way of transmitting the credo Rodolfo Squinzi was fond of repeating: "Work can never be separated from art and passion".

11.

Mapei was established in 1937 for the manufacture and installation of wall coatings. It initially began exporting products and know-how to Spain and France and then landed in North America. With its pioneering firms in the use of reinforced-concrete for the building trades, the latter is one of the most important and coveted markets in the construction industry.

12.

Sagstua is a town not far from Oslo, Norway's capital - it is also the headquarters of Mapei's operations in North Europe, including the Baltic States. A spearhead of this effort was the acquisition of Rescon AS, an industry specialist in the research and manufacture of underwater materials. A state-of-the-art, high-tech plant for special mortars and many other products, an R&D department for underground and underwater projects and a cutting-edge training facility have made Mapei a go-to company for the industry throughout the area.

13.

A strategic move for product manufacturing in the Far East where local legislation can often be an insurmountable hurdle to outside businesses, the Singapore plant has enabled Mapei to secure hundreds of contracts throughout the Orient since it opened in 1989.

14.

When the first shipment arrived in 1993, Puerto Rico became the first of Mapei's export partners in Central America for its tile-installation products. Even today Adesilex P22 is the best seller in the countries of the Caribbean. The increasing pace of development of the building and infrastructure trades throughout the area have since has made it necessary to open a new plant and distribution hub in Panama. The expertise gained over the years on major construction jobs all over the world helped Mapei supply a formidable range and volume of products for the new Panama Canal Lane and other big projects elsewhere. The Canal job required a reliable local base for materials manufacture and the on-site technical services

the team of experts it sent from the home office provided day and night during the years of construction. Panama proved to be a watershed for Mapei. It enabled the company to consolidate its business in Central as well as in North America to the point where it is now the industry leader in adhesives for floorings, coverings, special mortars and coatings.

15.

Mapei opened its Doha offices in 2014, following in the footsteps of the Dubai operations in 2007 that led the company's entry in the Middle East markets. Mapei has since extended its reach beyond local confines, securing procurement contracts for major works throughout the area.

16.

The Isozaki Tower was the first of the City Life skyscrapers, which now include those designed by Zaha Hadid and Daniel Libeskind, to go up. Mapei has been a key supplier for the entire City Life project, from tower foundations to residential complexes. As the first, the Isozaki was a real showcase for the expertise and ambitions of Mapei. The company set up a mobile laboratory whose team of technicians worked day and night with the construction crews, providing innovative materials that made continuous, high-volume pouring of the concrete possible.

17.

The headquarters of Mapei's R&D Division is based in Milan. The expertise gained in the field and in the 18 R&D laboratories scattered throughout the world provides Mapei a global vision for devising high-tech solutions that are always at the cutting edge of the industry.

18.

Mapei France S.A. established its headquarters in the country at Saint-Alban, Toulouse, in 1989. The facilities include administrative and sales divisions, a training school and, most importantly, a top-notch R&D laboratory. Mapei France S.A. also opened a production plant at Montgru-Saint-Hilaire, a suburb north of Paris, and one at Saint-Vulbas, not far from Lyon, in 2014. Not far from the Mapestone square, it recently began operations of a Specifications Centre, the latest addition to the other Italian training centres in Milan, Rome, Lecce, Sassuolo and to the one in London.

Index

1937-1946 Niguarda Major Hospital, Milan, Italy	2
1947-1956	
Villa Reale, Milan, Italy	4
1957- 1966	
Pirelli Skyscraper, Milan, Italy	(
MM1 Underground Line, Milan, Italy	
1967-1976	
Montreal Olympic Games, Canada	10
1977-1986 Financial Plaza, Phoenix, United States	12
1987-1996	
Zaventem Airport, Brussels, Belgium	14
Gallery of the Vatican Apostolic Library, Vatican City	10
1997-2006	
Three Gorges Dam, China	18
Teatro alla Scala, Milan, Italy	20
2007-2016	
Solomon R. Guggenheim Museum, New York, United States	22
Global Seed Bank, Svalbard Islands, Norway	24
Marina Bay Sands Resort, Singapore	20
The New Panama Canal, Panama	28
Hamad International Airport, Doha, Qatar	30
Isozaki Tower, Milan, Italy	32
High-Speed Rail, Base Tunnel of the Mountain Pass Deviation, the New Badia Nuova-Aglio Tunnel, Italy	34
2017 Place de l'Hôtel-de-Ville, Vincennes, Paris, France	30
End Notes	39

EDITOR

Mapei S.p.A. Via Cafiero, 22 – 20158 Milan (Italy) Tel. +39 02-37673.1 – fax +39 02-37673.214 www.mapei.com – mapei@mapei.it

EDITOR-IN-CHIEF

Adriana Spazzoli – Mapei S.p.A. a.spazzoli@mapei.it

ARTISTIC DIRECTION

Lidia Mandelli – Mapei S.p.A. mandellil@mapei.it Marco Manzoni – Mapei S.p.A. m.manzoni@mapei.it

EDITORIAL COORDINATION

Francesca Molteni – Mapei S.p.A. marketing@mapei.it Nicoletta Balocchi Franceschini – Mapei S.p.A. communication@mapei.it

GRAPHIC DESIGN AND LAYOUT

Jack Blutharsky www.jackblutharsky.it

AUTHOR

Fabio Longhi, Jack Blutharsky

TRANSLATION

David Verzoni

ILLUSTRATIONS

Carlo Stanga www.carlostanga.com

PRINTER

Galli Thierry Stampa s.r.l. www.gallithierry.it

Our thanks also go to all Mapei Group's Subsidiary companies and collaborators who kindly contributed their ideas, images and documentation to help make this monograph possible.

Mapei Monograph | April 2017 Mapei SpA | All rights reserved





