



The Eiffel Tower

Press Kit

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SOCIÉTÉ
D'EXPLOITATION
DE LA
TOUR EIFFEL





Preamble

Look, object, symbol, the Tower is all that man puts in it, and this all is infinite. A spectacle looked at and looking, a useless and irreplaceable edifice, a familiar world and a heroic symbol, the witness to a century and a constantly new monument, an inimitable and endlessly reproduced object, it is the pure sign, open to all times, images, and senses: the unbridled metaphor. Through the Tower, men exercise this great faculty of the imagination, which is their freedom, since no history, however dark it may be, has ever been able to take it away.

Roland Barthes, *La Tour Eiffel*, 1964



Société d'Exploitation de la Tour Eiffel, guardian of the monument's longevity

SETE (Société d'Exploitation de la Tour Eiffel) is a local public company, with 99% of its capital owned by the City of Paris and 1% by the Métropole du Grand Paris. Its board of directors is chaired by Jean-François Martins, Councillor of the City of Paris. It is made up of elected representatives of the City, Department and Métropole du Grand Paris. Managed by Patrick Branco Ruivo, SETE employs approximately 400 people and had turnover of €118 million in 2023.

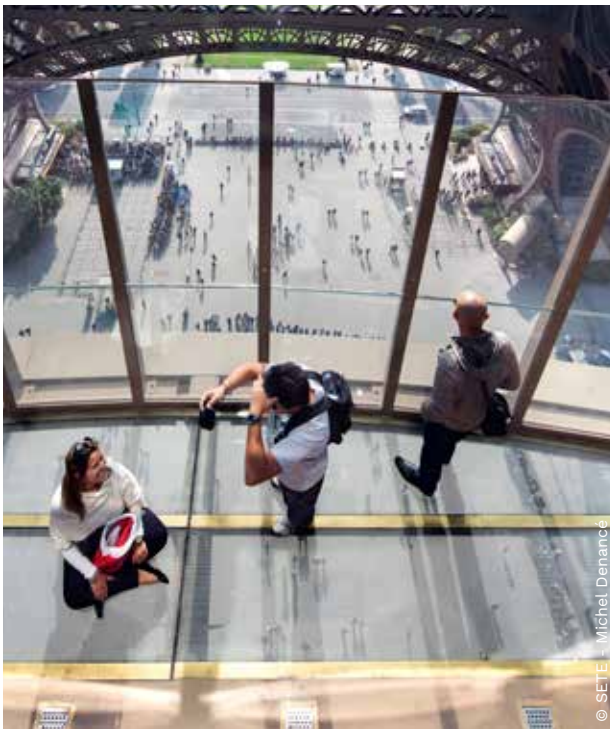
A scope of action defined by a public service delegation contract

Created in 2005, SETE (then called Société Nouvelle de la Tour Eiffel) was chosen by Paris City Council to maintain and run the Eiffel Tower. With over six million visitors to the Tower every year, SETE's objective is to modernize the facilities, reception spaces, and services offered to visitors while upholding a principle of sustainable development and maintaining a high level of security.

SETE's missions under its public service delegation contract are defined in an agreement signed with the City of Paris, which owns the monument. The most recent contract was signed in November 2017, for a period of 13 years. Following the signature of an amendment in the spring of 2024, the public service delegation contract was extended by one year (until 2031).

Visitors are at the center of SETE's priorities

SETE's mission is to create a far-reaching program of transformations, structured around three areas:



Enhancing the visitor experience

Extending the Eiffel Tower's perimeter to the gardens located either side of the monument, increasing online ticket sales and revising visitor itineraries.

Maintaining the monument

Development work, including increasing safety and accessibility (protective partitions), redesign of the second floor, and other maintenance work (North elevator, 20th painting campaign, etc.).

Boosting the monument's national and international reach

Attracting local visitors by creating new services and content (smartphone tour guide, kids' tour, official guided tours, etc.), participating in major events with the City of Paris (Olympics and Paralympics), organizing its own events and supporting the Tower's heritage online through digital community management.

Nearly **800 people** are involved in making the Eiffel Tower operational every day. One half are employed by SETE, the other half by concessionaires (boutiques, buffets, restaurants, telescopes).

A few figures

More than a monument, the Eiffel Tower is the symbol of Paris and France! It is undeniably one of the most well-known works of structural art in the world and most frequently depicted silhouettes.

Below are a few key figures about the Tower.

1,665

The number of steps from the esplanade to the top, via the staircase in the East pillar. More specifically, there are 345 steps from the esplanade to the first floor, 359 from the first to the second, and 932 between the second and third floors.

336

The number of lightbulbs (sodium-vapor lamps) with 600-watt power that give the monument its lovely golden glow at night.

20

The number of years it was originally intended to exist for. It was saved by the science experiments encouraged by Gustave Eiffel, notably the first radio transmissions, then telecommunications.

6.6

Elevator speed, in ft/sec.

5

Number of elevators from the ground to the second floor: 1 in the East pillar, 1 in the West pillar, 1 in the North pillar, 1 (private) in the South pillar serving Le Jules Verne restaurant, and 1 goods elevator in the South pillar. From the second floor to the top, 4 elevators operate in pairs.

20,000

The number of lightbulbs that make the Tower sparkle.

2.5 M

The number of rivets (small components used to assemble two metal parts) on the Tower.

10,100

The weight of the Eiffel Tower in tonnes, including its installations.

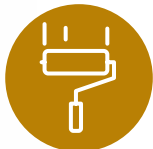




2 years, 2 months & 5 days

The time it took to build the Tower, a true technical and architectural feat!

The first sod was turned on January 28, 1887. The Tower was completed in record time on March 31, 1889, marking a high point in the industrial era. "Utopia achieved" in the late 19th century: a display of French engineering as embodied by Gustave Eiffel.



60

metric tonnes: the approximate weight of paint used during each campaign.



6 M

The average number of annual visitors, with 75% from overseas, **making it the most visited ticketed monument in the world.** Over 330 million visitors have come to explore it since it opened to the public.

1083

Its current height in feet, including the new 20-foot antenna installed in March 2022.

1889

The year it was built. For the World Exhibition of 1889, a year that marked the hundred-year anniversary of the French Revolution, a major competition was launched in the French government's *Journal Officiel*.

7

The number of years, on average, between painting campaigns.

800

The number of employees, both of SETE and the concessionaires, who work at the monument every day.

Visiting the Tower: let's climb!

Exploring the Eiffel tower will stimulate all your senses: a giddy ascent via the elevators or the stairs, stunning and unique vistas over the City of Light, the surprise of stepping onto the glass deck on the first floor...

The perimeter of the Eiffel Tower includes the side gardens. Visitors can enjoy over two hectares of historic gardens listed as Classified Wooded Areas (EBC). Hundred-year-old trees, ponds, some 2,000 shrubs and 20,000 perennials, belvederes, a rocky waterfall...

It is certainly worth taking time for a stroll before (or after) your visit!



Upon arriving on the esplanade, visitors enjoy a spectacular view of the Iron Lady. From underneath the monument, they can admire its elegant puddle-iron structure, counterbalanced by the strength of the four pillars: North, East, South and West. Solidly anchored at these four points, the Tower overlooks Paris from a height of 1,083 feet.

The 1899 elevator machinery: technical prowess at the time

The machines used for the Tower's East and West elevators are over a century old.

Located below ground, recently restored and computerized, the impressive hydraulic machinery continues to carry visitors up to the second floor.

Online sales: towards a new digital era

Travel habits are evolving and wait times are now an important criterion of visiting a tourist site. To respond to visitor needs and make it easier for them to organize their day, time-stamped tickets are available via the website (www.toureiffel.paris). The popularity of these tickets has steadily and significantly increased and they now account for 50% of online ticket sales.

Let's stop at the first floor.

Standing on the glass deck at a height of 187 feet, visitors have the unique sensation of hovering over the void. The first-floor platform showcases a **section of the historic staircase** that once connected the second floor to the top, and was used by Gustave Eiffel to get to the office he built for himself there. The staircase later became obsolete and was dismantled in 1983.

The Ferrié Pavilion is home to a 1,076ft² boutique with cultural items for sale, while Le Bistrot and the Madame Brasserie restaurant, with two-Michelin-star Chef Thierry Marx at the helm, complete the offer. One-off seasonal events are also organized on this floor, such as themed terrace decors, DJ sets, etc.

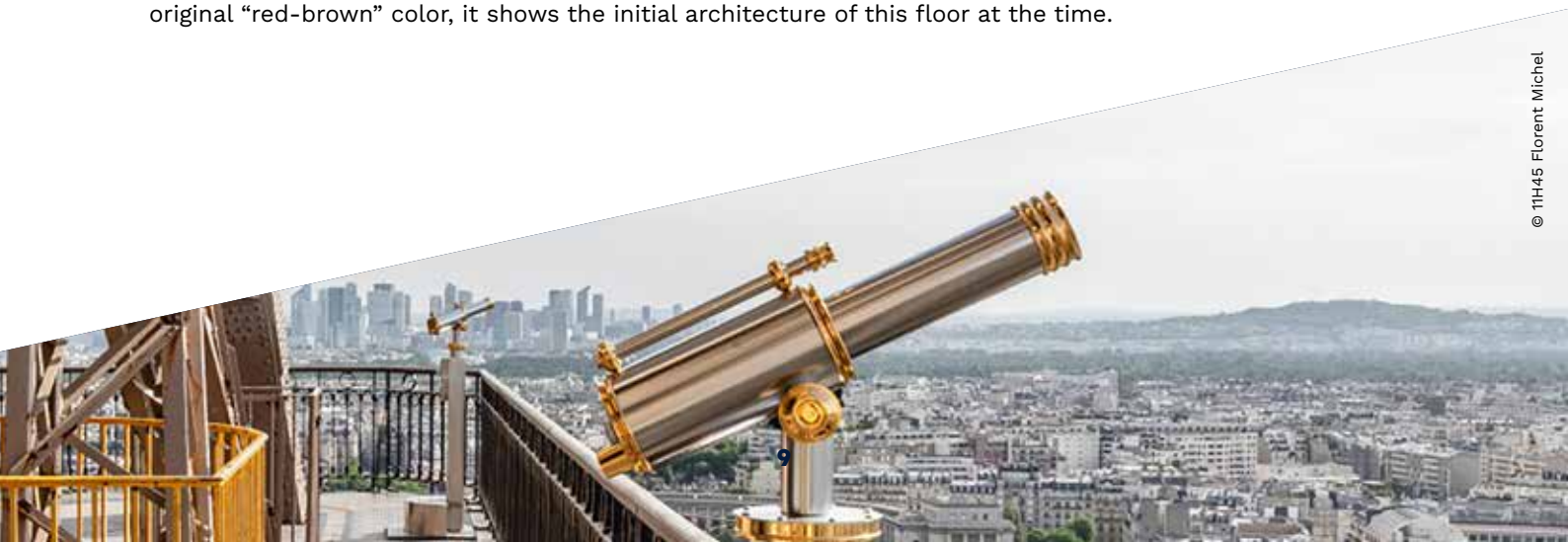
Your arrival at the second floor promises stunning sights and mouth-watering treats. This is where the Michelin-starred restaurant, Le Jules Verne, is perched, as well as a macaron bar, the Gustave cafe, and other boutiques.

Final destination: the top, 906 feet high! Here, visitors can stroll around two levels (one indoor, one outdoor) and enjoy the view while sipping a glass of champagne.

The **third floor** is also an opportunity to travel back through the monument's history by visiting a **reconstructed version of Gustave Eiffel's office**. This space houses realistic wax figures of the genius constructor and his daughter Claire receiving a visit from celebrated inventor Thomas Edison. It also houses the phonograph he gave to Gustave Eiffel, among other things.

The orientation panels at the top allow visitors to get their bearings and see the directions of and distances to the great cities of the world. They also show the silhouettes of these cities' iconic monuments. The geographic location (country flag, name of the city) and the building's height are marked for each one.

The platform also features a **1:50 scale model of the top of the Tower in 1889**. Painted in the monument's original "red-brown" color, it shows the initial architecture of this floor at the time.





Gustave Eiffel, a genius inventor

The Tower is not Gustave Eiffel's only creation. This passionate, authentic genius strove to go beyond his own limits and left behind a legacy of monumental works, including the dome at the Nice Observatory, the metal structure of the Statue of Liberty, the metal framework of the Le Bon Marché and Crédit Lyonnais buildings in Paris, and the railway bridge in Bordeaux. It is thanks to this extensive experience that the Eiffel Tower still dominates the Parisian landscape today, as it was initially only built to last 20 years.

A passionate engineer

An engineer by training, Eiffel founded and developed his own company specialized in metal framework, with the Eiffel Tower its crowning achievement. He then dedicated the last 30 years of his life to experimental research.

Born in 1832 in Dijon, he graduated from the École Centrale des Arts et Manufactures engineering school in 1855, the same year that the first major World Exhibition was held in Paris. After spending a few years in the south-west of France, where he supervised construction work for a large railway bridge in Bordeaux, he started his own business in 1864 as a “constructor”, i.e. an entrepreneur specialized in metal framework.

A legacy of international heritage

Gustave Eiffel, whose life and work was commemorated in 2023 on the occasion of the 100th anniversary of his death, left a legacy of hundreds of metal structures of all kinds. While bridges - particularly railway bridges - were his area of expertise, he also excelled in structural framework and industrial facilities. His career was marked by a long series of projects and structures, for which he gave free reign to the inventiveness of his company, including “portable” bridges sold as kits all over the world, the structure of the Statue of Liberty in New York, and, of course, the Eiffel Tower.



Wax figure of Gustave Eiffel at the top of the Tower.

The Panama Canal: a large-scale and risky project

In 1887, Eiffel agreed to construct the locks for the Panama Canal, a major project that was poorly managed by Ferdinand de Lesseps and led to the biggest financial scandal of the century. It was the biggest and riskiest contract in the entrepreneur's career. In return for the risks involved, he obtained enormous financial advantages and solid guarantees, which ensured him that he would receive his pay-out as soon as works started. Despite Eiffel's diligence, the liquidation of the Panama Canal Company on February 4, 1889, led to him being charged and condemned for fraud alongside Lesseps and his son, despite the fact he was simply a contractor.

He retired from the world of business. The ruling was later annulled by the Court of Cassation, invoking the statute of limitations, which put an end to any further legal action.

Scientific research, a return to the essence of things

Eiffel dedicated the last thirty years of his life to academic work. First of all, he aimed to find a use for the Tower, notably through air resistance experiments, a meteorological observation station, and, most importantly, a giant antenna for the burgeoning radio industry. As well as collecting meteorological data at stations set up at his various properties, he continued his research on aerodynamics and built a wind tunnel at the foot of the Tower, then a bigger one on Rue Boileau in Paris in 1909, which is still in use.

Gustave Eiffel died on December 27, 1923, at the age of 91.

The creation of the Eiffel Tower

For the World Exhibition of 1889, a date that marked the hundred-year anniversary of the French Revolution, a major competition was launched in the French government's *Journal Officiel*. The challenge was to "study the possibility of erecting an iron tower with a square base on Champ-de-Mars, 410 feet wide and 984 feet high". Out of 107 projects, it was a proposal by entrepreneur Gustave Eiffel, engineers Maurice Koechlin and Emile Nouguier, and architect Stephen Sauvestre that was selected.

An unusual project

The assembly of the pillars started on July 1, 1887, and was completed 21 months later. All the components were prepared at the Levallois-Perret factory just outside Paris, the where the Eiffel company was headquartered. Each of the Tower's 18,000 parts was designed and dimensioned before being traced out in the minutest detail and assembled into approximately 16-foot sections.

50 engineers and draftsmen made 5,300 drawings and over 100 workers prefabricated more than 18,000 different parts in the workshop. On site, between 150 and 300 laborers, supervised by a team of highly experienced workers who had taken part in major metal viaduct projects, assembled the giant Meccano-style construction.

The monument was inaugurated on March 31, 1889. On this day, Gustave Eiffel climbed the Tower's 170 steps to raise the tricolor French flag at the top.

The Eiffel Tower was the tallest building in the world until 1929, when it was overtaken by the Chrysler Building (1,047 feet).



Instant success for the tallest tower in the world...

The 1889 Paris World Exhibition received millions of visitors, of which **nearly 2 million visited the Eiffel Tower - almost 12,000 per day!** The Tower was a huge success from the outset.

In the first week, before the elevators were in operation, **nearly 30,000 visitors climbed the 1,710 stairs to the top.** At the time, the Eiffel Tower was the tallest tower in the world and people from across the globe flocked to the heart of Paris to admire this architectural gem. The public wanted not only to experience the giddy climb but above all, admire the hitherto unseen panorama of Paris.

...but a controversial beginning nevertheless

Like many major architectural projects that are now a part of our heritage, the Tower had its share of detractors. During its construction, there were violent protests from multiple personalities. On February 14, 1887, *Le Temps* published an open letter signed by around 50 artists and writers who opposed the construction of the Eiffel Tower.

This missive was addressed to Mr. Alphand, Curator of the 1889 World Exhibition, to protest against the construction of a 984-foot tower on the Champ-de-Mars. Gustave Eiffel defended his project tooth and nail, but the controversy continued. Some would later publicly apologize.



Extract from the letter* published in Le Temps on February 14, 1887

"We, writers, painters, sculptors, architects and passionate devotees of the hitherto untouched beauty of Paris, protest with all our strength, with all our indignation, in the name of slighted French taste, in the name of art and of French history threatened, against the erection, in the heart of our capital, of the useless and monstrous Eiffel Tower, which public malignity, often marked by common sense and the spirit of justice, has already named 'Tower of Babel'. Without falling into the exaltation of chauvinism, we have the right to proclaim that Paris is the unrivaled city of the world. Above the streets, the widened boulevards, and the magnificent walks, rise the most noble monuments that the human race has produced. The soul of France, creator of masterpieces, shines amidst this august flowering of stones. Italy, Germany, and Flanders, so justifiably proud of their artistic legacy, possess nothing comparable to ours, and from all corners of the globe Paris attracts curiosity and admiration. Are we going to let all this be profaned? Will the city of Paris go on to associate itself still further with the eccentric, mercantile imaginings of a machine builder, to become irreparably ugly and dishonored? For the Eiffel Tower, which the commercial-minded America itself would not want, is, doubtless, the dishonor of Paris. Everyone feels it, everyone says it, everyone is deeply aggrieved by it, and we are but a weak echo of the universal opinion, so legitimately alarmed. Finally, when the foreigners come to visit our Exhibition, they will exclaim, astonished: 'What? It is this horror that the French have found to give us an idea of their taste, so much vaunted?' And they will be right to make fun of us, because the Paris of the sublime Gothic, the Paris of Jean Goujon, Germain Pilon, Puget, Rude, Barye, etc., will have become the Paris of M. Eiffel.

It suffices, moreover, to realize what we are doing, to imagine for a moment a vertiginously ridiculous tower dominating Paris, as well as a gigantic factory chimney, crushing with its barbarian mass Notre-Dame, Sainte-Chapelle, the dome of the Invalides, the Arc de Triomphe, all our monuments humiliated, all our architectures shrunken, disappearing in this astonishing dream. And for twenty years, we will see, stretching out over the entire city, still quivering with the genius of so many centuries, we will see the odious shadow of this odious column of bolted sheet metal stretching out like an ink stain. It is for you, those who love Paris so much, who have embellished it so much, who have so often protected it against the administrative devastation and vandalism of industrial enterprises, the honor of defending it once more. We leave it to you to plead the cause of Paris, knowing that you will deploy all the energy, all the eloquence that must inspire the love for what is beautiful, what is great, what is right in such an artist as yourself. And if our cry of alarm is not heard, if our reasons are not listened to, if Paris persists in the idea of dishonoring Paris, we will at least, you and us, have heard a protest that honors it."

* The long list of signatories included the names of such personalities as Charles Garnier, architect of the Opéra, and writers François Coppée, Alexandre Dumas fils, Charles-Marie Leconte de Lisle, Guy de Maupassant, and Sully Prudhomme.

Gustave Eiffel's reply

"I will tell you all my thoughts and all my hopes. I believe, for my part, that the Tower will have its own beauty. Because we are engineers, do we believe that beauty does not concern us and our structures, and that at the same time as we make things solid and durable, we must not strive to make them elegant?"

Do not the true conditions of force always conform to the secret conditions of harmony? The first principle of architectural aesthetics is that the essential lines of a monument are determined by perfect appropriation to its destination. Now, what condition have I had, above all, to take into account in the Tower? Wind resistance. Well! I claim that the curves of the four edges of the monument, as calculated, starting from a large and unusual thickness at the base, tapering to the top, will give a great impression of strength and beauty, for they will translate to the eyes the boldness of the design as a whole, just as the many voids in the very components of the structure will bear testimony to the perpetual desire not to unnecessarily deliver to the violence of storms, surfaces dangerous for the stability of the building.

There is, furthermore, in the colossal, an attraction and a particular charm, to which theories of ordinary art are hardly applicable. Would you say that it is through their artistic value that the Pyramids have so powerfully struck the imagination of men? After all, are they anything but artificial hills? And yet,

what visitor remains unmoved in their presence? Who has not returned from visiting them filled with irresistible admiration? And what is the source of this admiration, if not the immenseness of the effort and the grandeur of the result? The Tower will be the tallest building that man has ever built. Will it not be so grandiose in its own way? And why would that which is admirable in Egypt become hideous and ridiculous in Paris? I search and I admit that I cannot find the answer".



Did you know?



Royalty, international personalities, artists... The Eiffel Tower has attracted many famous visitors including French actress Sarah Bernhardt, the Princess and Prince of Wales (future King Edward VII), George I of Greece, the Shah of Persia, and Prince Baudouin, plus several more surprising figures, such as William F. Cody, better known as Buffalo Bill.

The Eiffel Tower was at the origin of the postcard's rise to popularity in France. In 1889, the monument's management started to sell the famous "Libonis" cards, named after the famous engraver, at the request of visitors. The oldest postmark found on an Eiffel Tower postcard dates from August 21, 1889.

The elevators, key parts of the Tower

As soon as the Eiffel Tower opened for the 1889 World Exhibition, visitors could already access the floors of the monument by elevator. These elevators were a true demonstration of technical prowess for the time, as never before had such heights and loads been taken on. They offered hundreds of thousands of visitors the possibility of ascending the structure to admire Paris in complete safety, right from the start of the Tower's operation.

While elevators may be taken for granted today, at the time, this was a major feat. Some of the historic elevators are still in operation, representing pieces of industrial archeology. This incredible, carefully preserved heritage attests to Gustave Eiffel's visionary genius, even today.

The elevators of the past...

The four pillars were fitted with either one or two cabs between the ground and the second floor. In June 1889, five hydraulic elevators for visitors were brought into operation. The nature of their fledgling technology led Gustave Eiffel to modernize these means of ascent for the 1900 World Exhibition.

Between the second and third floors, visitors could ascend via an "Edoux" elevator, a hydraulic machine like none other at the time. The upper cab was pushed by a 266-foot hydraulic jack, with the lower cab forming the counterweight. Visitors therefore had to change cab halfway up, by crossing a bridge that also offered an impressive view.

In the North and South pillars, "Otis" elevators were installed, but dismantled in 1910. In the East and West pillars, the elevators to the first floor were installed by the French company Roux, Combaluzier et Lepape. Lacking efficiency, they were replaced in 1889 by hydraulic elevators built by Fives-Lille.

... and present

From the ground to the second floor, there are three lifts for visitor use in the North, East and West pillars. Another serves Le Jules Verne restaurant, located in the South pillar, which also houses a service elevator (goods lift). From the second floor to the top, two sets of twin cabs are available for up and down trips.

The cabs, electrics, computer systems, and historic machinery that operates them are regularly checked, repaired and greased.

They are regularly monitored by the monument's technicians, who start them up early in the morning before the first visitors arrive and keep an eye on their operation throughout the day. They are manned by the Tower's staff.



© Maud Chazeau

A few figures

64,000

the number of miles traveled by the elevators each year, i.e. two and a half times around the Earth.

3,500

the average number of visitors transported per hour by all the elevators.

6.6

elevator speed, in ft/sec.

Elevator throughput and capacity:

North
920
people/hour

East
650
people/hour

West
920
people/hour

Duolifts
1,140
people/hour

Jules Verne
10
people/ascent

Spotlight on the renovation of the historic elevators

Launched in October 2008, the modernization of the West elevator was completed in 2014. It was a lengthy operation, involving teams of 10 to 45 people of many different professions.

A unique prototype

The elevators, which date back to 1899, are equipped with a mechanical system like none other in the world. Neither an elevator in the traditional sense, nor a cable car or funicular system, they do not belong to any particular category and do not correspond to any standard in force. This machinery, over a century old, therefore had to be adapted to modern safety criteria.



Why modernize?

Beyond the measures required to bring the elevators into conformity with current regulations, the modernization work aimed to improve the performance of this historic equipment and optimize maintenance conditions.



Reopening of the North elevator

The work launched in the fall of 2018 and completed in June 2024 mainly concerned the renovation of the pulleys, cabs, automation system and tracks. Besides upgrading the technical equipment, the renovation of the elevator also improved the visitor experience and working conditions of SETE staff, whose tasks will also be facilitated by the modernization of the equipment.



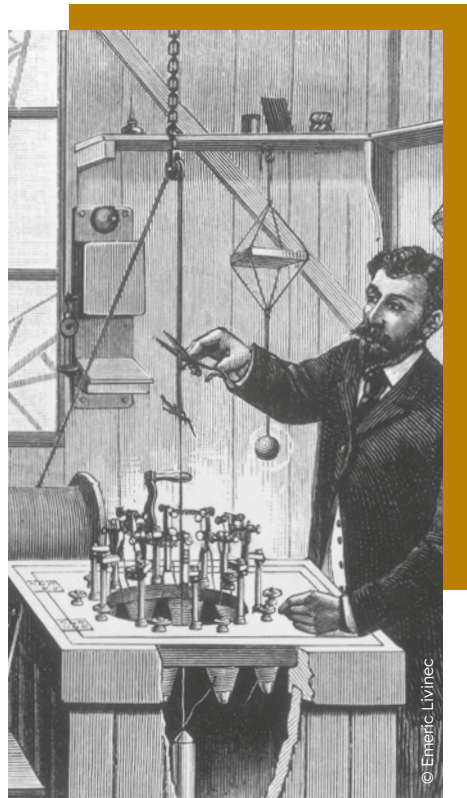
The Eiffel Tower, home to science experiments

The Eiffel Tower was originally meant to be demolished just 20 years after it was built. To prevent this, Gustave Eiffel had the ingenious idea of giving it a scientific vocation: the Tower was saved!

Proven scientific utility

When he first presented his project in 1886, Gustave Eiffel knew that only the Tower's scientific usefulness could defend it against its detractors and extend its life. The engineer explained: *"It will be an observatory and laboratory for all, such as has never been made available to scientists. That is why, from the very first day, I have been encouraged by the best wishes of all our scholars."*

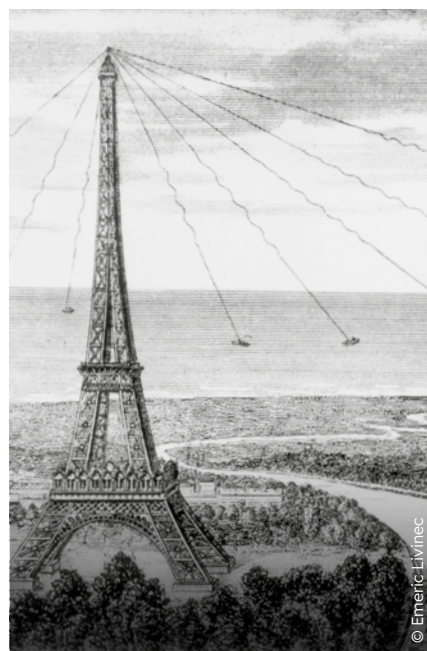
True to his desire, the Eiffel Tower has served as a laboratory for scientific experiments and data collection since 1889, and many apparatus have been installed there (barometers, anemometers, lightning rods, etc.).



Aerodynamics research

The day after the Tower was inaugurated, Gustave Eiffel installed a meteorology laboratory on the third floor. He was also passionate about aerodynamics and performed a series of observations on falling bodies, for which he designed an *"automatic system sliding along a cable stretched between the second floor of the Tower and the ground"*. He also had a small wind tunnel built at the foot of the Tower. From August 1909 to December 1911, he carried out 5,000 tests. Furthermore, Gustave Eiffel encouraged many scientific experiments at the Tower: Foucault pendulum, mercury pressure gage, physiology research and radio connections.

In the end, it was the Tower's role as a giant antenna that saved it from destruction.



The Eiffel Tower and the history of broadcasting

Gustave Eiffel succeeded in saving the Eiffel Tower by proposing it be transformed into a huge antenna mount for wireless transmission.

The first wireless telegraph communications by Eugène Ducretet

On November 5, 1898, Eugène Ducretet carried out the first wireless telegraph experiments between the Eiffel Tower and the Pantheon (2.5 miles). The transmitter was installed at the top of the Tower. In 1899, communications crossed the English Channel for the first time.



The early days of radio: Sacha Guitry, Yvonne Printemps, and General Ferrié

Wireless transmission saves the Tower

In 1903, still in search of a way to save “his” Tower, for which the City of Paris’s concession was scheduled to end six years later, Gustave Eiffel suggested to Captain Gustave Ferrié that he use the Tower for his experiments, as he was in charge of studying the military applications of wireless transmission at the time. Eiffel also funded the operation, which allowed communications over a 250-mile distance. The French Directorate of Military Engineering authorized Captain Ferrié to install antenna on the Tower. On January 21, 1904, the Eiffel Tower officially became a wireless transmission station.

The first radio and television shows

Starting in 1921 on an experimental basis, a civil broadcaster transmitted music programs, columns, and finally news via the *Journal Parlé*, in 1925, picked up by keen listeners using simple crystal sets. *Radio Tour Eiffel* became well-known among Parisians at the time. Experimental shows were recorded with such guest artists as Sacha Guitry and Yvonne Printemps. Later on, in 1935, a television studio was created on Rue de Grenelle, and the Eiffel Tower transmitter launched into operation. Initially set up with 60 cables, it then went to high definition with 180 cables. On June 2, 1953, thanks to the Tower’s transmitter, people from all over France were able to watch the coronation of the Queen of England live on television.

The Tower grows with advances in television

In 1957, live-broadcast satellite dishes were installed, providing programs on three television channels using 819 cables, along with a frequency modulation (FM) radio transmitter. A new antenna took the Eiffel Tower to a total height of 1,052 feet. In 2000, the installation of a new ultra high frequency (UHF) antenna saw the Tower grow to a height of 1,063 feet. In 2010, major work was carried out on the TDF equipment to prepare the transition to digital terrestrial television (DTT) in Ile-de-France.

In March 2022, **a new 20-foot antenna was added to the top of the Tower** for DAB+ (Digital Audio Broadcasting) radio. The Iron Lady now stands at 1,083 feet tall! This new antenna considerably improved the quality of digital radio coverage for Paris and the Ile-de-France region. It joins the dozens of antenna that allow TDF to broadcast nearly 30 DTT channels and 32 radio stations to 12 million residents in a 43-mile perimeter around the Eiffel Tower.



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The Eiffel Tower, a luminous wonderland

The size and structure of the Eiffel Tower inspires the most innovative, elaborate, and unique lighting designs.

A beacon of Paris, a torch or a backdrop to firework displays, its history is closely tied to the history of light.



Electricians carrying out maintenance work on gold spotlights

At midnight on December 31, 1999, the entire world discovered the Tower's beacon and sparkles. Every evening, the Eiffel Tower is garbed in gold and sparkles for the first five minutes of every hour, while the beacon shines across Paris.

The beacon, two beams of light with 50-mile range, is composed of four motorized marine-style floodlights. They are controlled by microcomputers, using dedicated software and a programmable logic controller (PLC) that regulate their movements. Rotating through 90°, they are synchronized to form a double cross-beam that sweeps over a 360° range.

The Tower's sparkles shine over the top of the gold illumination. Created by lighting designer Pierre Bideau, the author of many light displays in France and abroad, it was turned off just 18 months after its inauguration, as the system had reached the end of its capacities. The first renovation was performed in 2003 and designed to last 10 years: a true record for lighting! Its lifespan was extended by reducing the duration of the sparkles each evening, from 10 to 5 minutes.

A unique display created by 20,000 sparkling lights:

25

rope access technicians over 5 months

230

cabinets and power supply units required

25

miles of string lights and power cables

107,639

square feet of safety nets

40,000

fixings

120

KW of power

80,000

metal parts of different kinds

60

tonnes of metalwork and metal parts

The Eiffel Tower sometimes exchanges its usual lighting for special illuminations to mark national and international events. Below are just a few examples:

1889

On the night of its inauguration, 10,000 gaslights lined the trusses and platforms. Two floodlights at the top lit up the monuments of Paris. The red-white-blue beacon at the top was the most powerful in the world.

1925-1936

The monument was garbed in 250,000 colored light bulbs courtesy of André Citroën. The name Citroën was emblazoned on three sides of the tower and could be seen from 25 miles away in all directions.

1958

1,290 spotlights were installed in a series of trenches on Champ-de-Mars to illuminate the Tower.

Christmas 1978

The Tower was adorned with a Christmas tree composed of 30,000 light bulbs.

Apr. 5 1997

Launch of the luminous “**1000 days before the year 2000**” countdown installed 328 feet about ground, facing the Trocadéro.

Lit up day and night, it indicated the remaining number of days until the year 2000.

Dec. 31 1999

The Eiffel Tower **rang in the year 2000**. At midnight, a choreographed firework display was set off, offering a unique pyrotechnic ballet that lasted 3 minutes and 3 seconds.



The Eiffel Tower lit up in the colours of Ukraine



Illumination of the Eiffel Tower on July 14th

6 Sept. 2007

For the opening of the **Rugby World Cup**, held in Paris, the Eiffel Tower was decked out in rugby colors.

July 2008

The monument shone in the blue hue and stars of the European flag during the **French Presidency of the European Union**.

Oct. - Dec. 2009

As a climax to its **120th-anniversary celebrations**, the Eiffel Tower offered a festive, innovative light show to the public every night. Thanks to cutting edge LED spotlights, the monument was illuminated with a cascade of lights, strobe effects and dynamic color combinations.

Since 2013

The Eiffel Tower is lit up every year for **Pink October**, the international campaign for the fight against breast cancer.

June 9 - July 10 2013

EURO 2016: a light show was held at the monument during David Guetta's opening concert on June 9. **The Eiffel Tower was at the center of the program**, with a light show by Orange on match nights.

June 2014

Launch of the .paris top-level domain name: **the message "www.bienvenue.paris" was projected** onto the skirt of the first floor and shared in real time on the Tower's official social media accounts.





Aug. 3 2016

The Eiffel Tower was illuminated in the colours of Brazil for the start of the **Olympic Games in Rio**.

Nov. 4 2016

The Eiffel Tower was lit up in green to celebrate **the Paris climate agreements**.

Feb. 3 2017

The Eiffel Tower shone with the colors of Paris's bid to host the **2024 Olympic and Paralympic Games**.

July 15 2018

Blue-white-red lighting following **France's victory at the 2018 FIFA World Cup**.

Sept. 13 & 14 2018

Special illuminations at the Eiffel Tower for **Japonismes 2018**, an event that marked the 160th anniversary of diplomatic relations between France and Japan.

Oct. 6-7 2018

During **Nuit Blanche 2018**, the Eiffel Tower hosted a work by artist ZEVS called *Eiffel Phoenix: cette obscure clarté qui tombe des étoiles*.

This light performance was designed to shift the lighting system away from the structure with the aim of "redistributing time, the electric light of the Eiffel Tower".

May 15 - 17 2019

For the **130th anniversary of its opening to the public**, the Eiffel Tower hosted a unique light show designed by **Bruno Seillier and produced in partnership with EDF** on three consecutive nights. This highly spectacular light show featured a number of novel effects: laser spotlights showcasing the Tower's lacy ironwork, strobe effects, double-helix light effects, etc. For 12 minutes, it retraced the monument's history to the sound of a lively, dramatic soundtrack.

May 2 2020

Special sparkles in tribute to all the people involved in the fight against COVID-19.

Nov. 2021

Special sparkles on November 12, for the **75th anniversary of UNESCO**, accompanied by a projection of the international organization's logo. On November 20, as part of World Children's Day, the Tower was lit up in the UNICEF colors. Lastly, on November 30, special sparkles to mark **Josephine Baker's induction into the Pantheon**.

Jan. 2022

For the second time in its history, the Iron Lady was lit up in the blue hue and stars of the European flag to celebrate the **French Presidency of the European Union**.

August 24 2023

The Eiffel Tower was garbed in the colors of the **Ukrainian flag in support of the country's people**.

Oct. 9 2023

The Eiffel Tower sported the colors of the **Israeli flag in support of the country's people**.

Dec. 27 2023

To mark the centenary of Gustave Eiffel's death, SETE - in partnership with DJ-producer Michael Canitrot - designed a **unique artistic show combining heritage, electronic music and performance art**, which was shared on social media.



Lights on the monumental Eiffel Tower

Painting the Tower: a sizable challenge!

The painting campaign is an important event in the monument's life and, like everything concerning the Eiffel Tower, is a somewhat legendary undertaking. The operation concerns the longevity of this internationally renowned work of structural art and the color of an iconic monument of the Parisian landscape, involving technical feats accomplished by fearless painters working at height, and considerable means mobilized for such a sizeable structure.

A colossal project to guarantee the Tower's longevity

The Eiffel Tower is made of puddle iron, a material that could almost last forever if it is repainted regularly.

However, multiple factors can damage this metal: rust, the pollution of a major city, bird excrement, etc.

This makes it essential to carefully clean the monument and regularly add new coats of paint by hand to protect the structure and ensure its longevity.

Since its creation, the Eiffel Tower has been entirely repainted every 7 years on average.

“Eiffel Tower brown”, the Iron Lady's unique color until 2019

The “Eiffel Tower brown” color was made specially and exclusively for the Tower and was used from 1968 through 2019. It was applied in three different shades, with the lightest at the top and the darkest at the bottom, to emphasize the monument's slender silhouette soaring into the Parisian sky. Throughout its life, the Tower has also been painted in other colors, including yellow-orange in 1899 and red-brown in the 1950s.

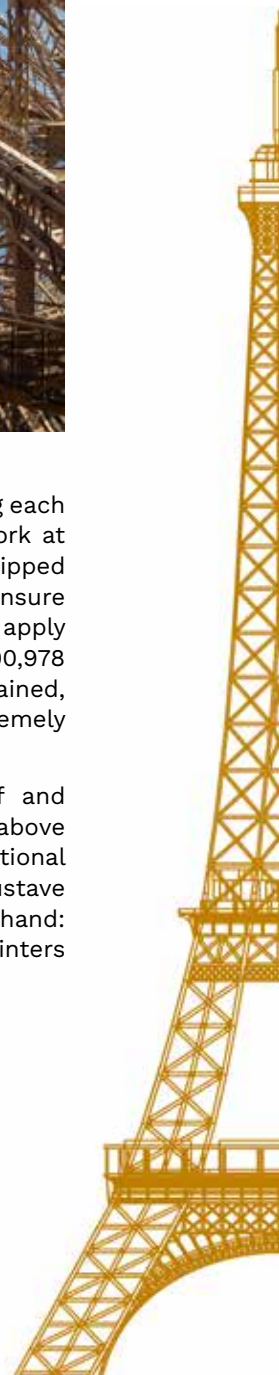
“It cannot be stressed enough that paint is the essential element in the conservation of a metal structure, and that the care given to it is the only guarantee of its durability.”

Gustave Eiffel, *La Tour de 330 mètres*,
Lemercier – Paris 1900

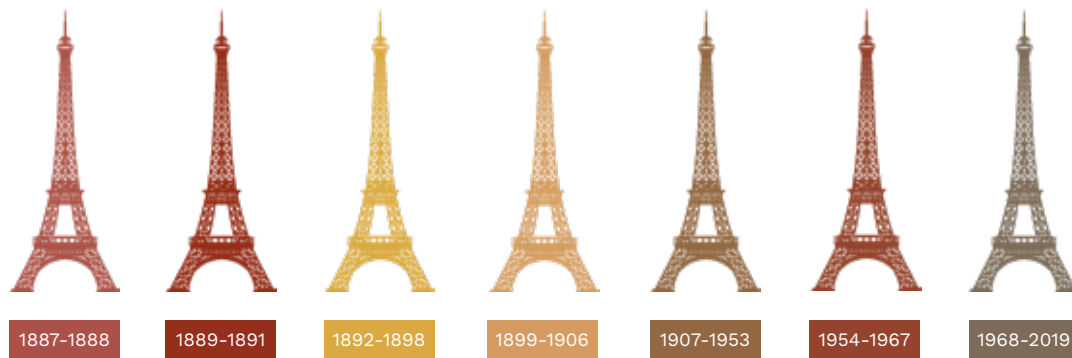


Today, it is painted “yellow-brown”. During each painting campaign, some 20 painters work at height to complete the operation, equipped harnesses and 37 miles of lifelines to ensure their safety. They climb the Tower to apply around 60 tonnes of paint to the 2,690,978 square feet of surface to be maintained, including in some areas that are extremely difficult to access.

They strip, clean, and apply rustproof and topcoats at a height of up to 1,083 feet above ground. Still today, the painters use traditional methods that were employed in Gustave Eiffel's time. The Tower is only painted by hand: “distance” work is not allowed and all painters must use a hand-held paintbrush.



History of the Eiffel Tower's colors



The 20th painting campaign: a unique undertaking!

Like everything concerning the monument, the painting campaign is a legendary undertaking that reflects the mammoth scale of the Tower. The scope and complexity of the work make it a unique, if not historic project and an unprecedented technical and human challenge.

Before applying the different layers of paint, the teams in charge prepare the surfaces to ensure the best possible adhesion. For the first time in its history, part of the structure was completely stripped (removal of 19 coats of old paint), in the area around the decorative arch facing the Champ-de-Mars, which showed the perfect condition of the puddle iron.

Preparation for this campaign was also an opportunity to reflect on the historical colors of the Tower, which has been listed and protected as an historic monument since 1964. SETE entrusted the management of this project and the preparatory historical study of the Eiffel Tower's paintwork to the agency of Pierre-Antoine Gatier, Head Architect for Historic Monuments.

At the end of the preparatory study, **yellow-brown was chosen as the new color**, the same as the shade used in 1907, when Gustave Eiffel discovered that his Tower was to become a permanent feature of the Parisian landscape; it is a color that echoes the facades of the city's buildings.

SINCE 2020

"Yellow-brown": returning to the historic hue.





The backdrop to many challenges and exploits

The Eiffel Tower has inspired many sporting, artistic and scientific achievements and hosted incredible challenges and feats. Its history is punctuated with many exploits. In 2024, to celebrate a year focused on sport, an exhibition on the first floor titled “A Larger-Than-Life Arena” retraced 135 years of sporting events that have marked the monument’s history.



1983

Ascent and descent on off-road motorcycles by Charles Coutard and Joël Descuns.

1989

To mark the 100th anniversary of the Tower, highwire artist Philippe Petit crossed the 2,297-foot gap between the Palais de Chaillot and the Eiffel Tower on a tightrope.

1998

Hugues Richard broke the record for climbing the Eiffel Tower’s stairs on a mountain bike, from the first to the second floor.



2003

The Eiffel Tower was decked out in the colors of the Paris bid for the 2012 Olympic Games. The 100th Tour de France started at the foot of the Eiffel Tower.

2004

Andorran mountain bike champion Xavier Casas broke his mountain bike stair-climbing record: 1,300 steps! This feat saw him enter the Guinness World Records.

The same year, French ice-skating champions Sarah Abitbol and Stéphane Bernadis inaugurated a 2,150 ft² ice rink installed on the first floor of the Eiffel Tower for the festive season. It was enjoyed by over a thousand ice skaters each day, an international success!

1905

The newspaper *Le Sport* organized a stair-climbing championship to the first floor, won by Forestier in 3 minutes and 12 seconds. As a prize, he received a bicycle.

1923

Pierre Labric, a journalist and future Mayor of Montmartre, descended the Tower from the first floor to the ground by bicycle, without authorization! His exploit drew widespread attention.

1964

Mountaineers Guido Magnone and René Desmasion climbed the Iron Lady to mark the Tower’s 75th anniversary. The event was broadcast on Eurovision.



2007

From June 1 through 10, water lapped at the Tower's feet when a 2,583-square-foot diving pool was installed on the monument's esplanade, allowing over 3,000 visitors to discover scuba diving.

2010

On May 29, skating champion Taïg Khris broke the world record for skate jumping, launching himself from a platform on the first floor of the Tower and free-falling 12.5m.

2015

In June, the Eiffel Tower, in partnership with Lolë and My Little Paris, offered visitors morning yoga sessions on the first floor of the monument. This unique initiative was brought to a close on June 21 with a giant yoga class on the esplanade, with nearly 500 participants, all dressed in white.

Since 2015

A stair-climbing time trial called La Verticale de la Tour Eiffel, co-organized with EcoTrail. Over a hundred runners from around the world came to ascend the monument's 1,665 stairs!

2017

A 2,025-foot zip line was installed in June, from the second floor to the end of Champ-de-Mars. To celebrate the French Open, around a hundred visitors were able to "step into the shoes" of a tennis ball each day.

On December 9, France Télévisions organized a series of challenges as part of the *Téléthon* fundraising event. The Eiffel Tower was the location for one of them, during which a slackliner crossed 2,133-foot line.

2018

For the French Open, the French Tennis Federation and Paris City Hall installed a full-size tennis court on the esplanade. The Eiffel Tower also hosted an unusual auction, for a 70%-complete skeleton of a newly discovered species of carnivorous dinosaur that measured 30 feet long. In December, for the *Téléthon* fundraising event, "flying man" Franky Zapata flew between the Tower's four pillars, hundreds of feet above ground.

2019

In August, a ceremony was organized on the Esplanade to celebrate the 75th anniversary of the liberation of Paris. A 50x65-foot French flag was hung between the first and second floors by members of the Paris fire brigade. On the sports side of things, the Paris Saint-Germain women's soccer team came to the Tower's stairs for a vertiginous training session!

2021

Highliner Nathan Paulin crossed between the Eiffel Tower and Chaillot - Théâtre National de la Danse twice, for the European Heritage Days on September 18 and 19 and the launch of the Cultural Olympiad: 2,200 feet crossed at a height of 230 feet above ground, on a 1-inch-wide highline.

April 10, 2024

Anouk Garnier, two-time world obstacle race champion for her age category, broke the world rope-climbing record at the Eiffel Tower by climbing to the top of a 361-foot rope.





The Tower and the Arts

The Eiffel Tower has always inspired artists. Whether little known or famous, illustrators, painters, and, of course, photographers, have all used this giant structure as the subject of their works. The Iron Lady has been reproduced in every artistic domain, but it is probably paintings and cinema that have been the most prolific and featured the greatest number of representations of the monument.

In the pictorial arts, Robert Delaunay was the one who established the Tower as a pictorial object, 20 years after its completion, in a series of paintings from 1909 to 1926. He painted it around 30 times, always in a different light and from a different angle.

Like Delaunay, Marc Chagall was born with the Eiffel Tower. He was a painter, illustrator, engraver, and decorator who was inspired by Cubism early on. The square pyramid shape of the Eiffel Tower, a work of art in and of itself, fitted naturally into his work. Georges Seurat also painted the Tower 1888. Later on, “Le Douanier” Rousseau, Signac, Bonnard, Utrillo, Gromaire, Vuillard, and Dufy, to name just a few, all celebrated the Tower in their work.

A few painters who placed the Tower at the center of their works:

1888

Georges Seurat:
Eiffel Tower
(Fine Arts Museums of San Francisco).

1889

Jean Beraud:
Entrée de l'Exposition Universelle (Musée Carnavalet, Paris).

1890

“Le Douanier” Rousseau: *Moi-même, portrait paysage* (Narodni Galerie, Prague).

1911

Robert Delaunay:
Eiffel Tower
(S.R. Guggenheim Museum, New York).

1910-1912

Robert Delaunay:
La Ville de Paris
(MNAM - Centre G. Pompidou, Paris).

1913

Marc Chagall:
Paris through the Window
(S.R. Guggenheim Museum, New York).

1926

Romaine Brooks:
Jean Cocteau
(MNAM - Centre G. Pompidou, Paris).

1954

Marc Chagall:
Champ-de-Mars
(Museum Folkwang, Essen).

1954

Nicolas de Staël:
La tour Eiffel -
Museum of Troyes.

Also, Raoul Dufy, Gino Severini, Utrillo, Bernard Buffet, Pol Bury, Roger Lersy, and many others besides.

In literature

the Tower has often featured as a central subject in stories, but it was during the monument's construction that it was most written about. Alphonse Allais, Guillaume Apollinaire, Blaise Cendrars, Jean Cocteau, and many other writers and poets have brought the Iron Lady to life in pen and ink. One of the most well-known is Roland Barthes and work *La tour Eiffel*, a fascinating collection of essays accompanied by photos by André Martin.

Extract from Roland Barthes' book

"Look, object, symbol, the Tower is all that man puts in it, and this all is infinite. A spectacle looked at and looking, a useless and irreplaceable edifice, a familiar world and a heroic symbol, the witness to a century and a constantly new monument, an inimitable and endlessly reproduced object, it is the pure sign, open to all times, images, and senses: the unbridled metaphor. Through the Tower, men exercise this great faculty of the imagination, which is their freedom, since no history, however dark it may be, has ever been able to take it away."

In music

Another popular tradition is to come and perform at the foot of the Tower, such as on September 25, 1962, when Darryl F. Zanuck organized a spectacular show for the launch of the film *The Longest Day*. Edith Piaf also sang from the first floor to an audience of 25,000 Parisians. Charles Aznavour and Georges Brassens continued the trend in 1966 to support the campaign against hunger. Jean-Michel Jarre accompanied the 50th anniversary celebrations of Unesco on July 14, 1995.

On July 10, 1998, a concert by the three tenors José Carreras, Plácido Domingo, and Luciano Pavarotti drew over 200,000 spectators to the base of the Tower. On June 10, 2000, Johnny Hallyday beat all the records with a concert and firework display attended by 600,000 spectators.

The Tower is also a prestigious venue for private concerts in the Gustave Eiffel Room on the first floor (Alanis Morissette, Robbie Williams, Texas, Raphaël, Marc Lavoine, Christophe Maé, Justin Bieber, Aya Nakamura, etc.) and for shooting video clips.

Rap group PNL filmed the clip for their song *au DD* at the Tower, which won the Victoires de la Musique award in 2020 and racked up nearly 230 million views on YouTube!

A few songs that celebrate the Eiffel Tower:

Michel Emer: “Paris, mais c’est la tour Eiffel...”

Charles Trénet: “Y a d’la joie, la tour Eiffel part en balade...”

Léo Ferré: “La tour Eiffel a froid aux pieds...”

Jacques Dutronc: “Seine Grenelle” (Private collection).

Pascal Obispo: “Je suis tombé pour elle...”

Theater: “Les Mariés de la Tour Eiffel” by Jean Cocteau

“Silhouette”, a work by Estonian composer Arvo Pärt.



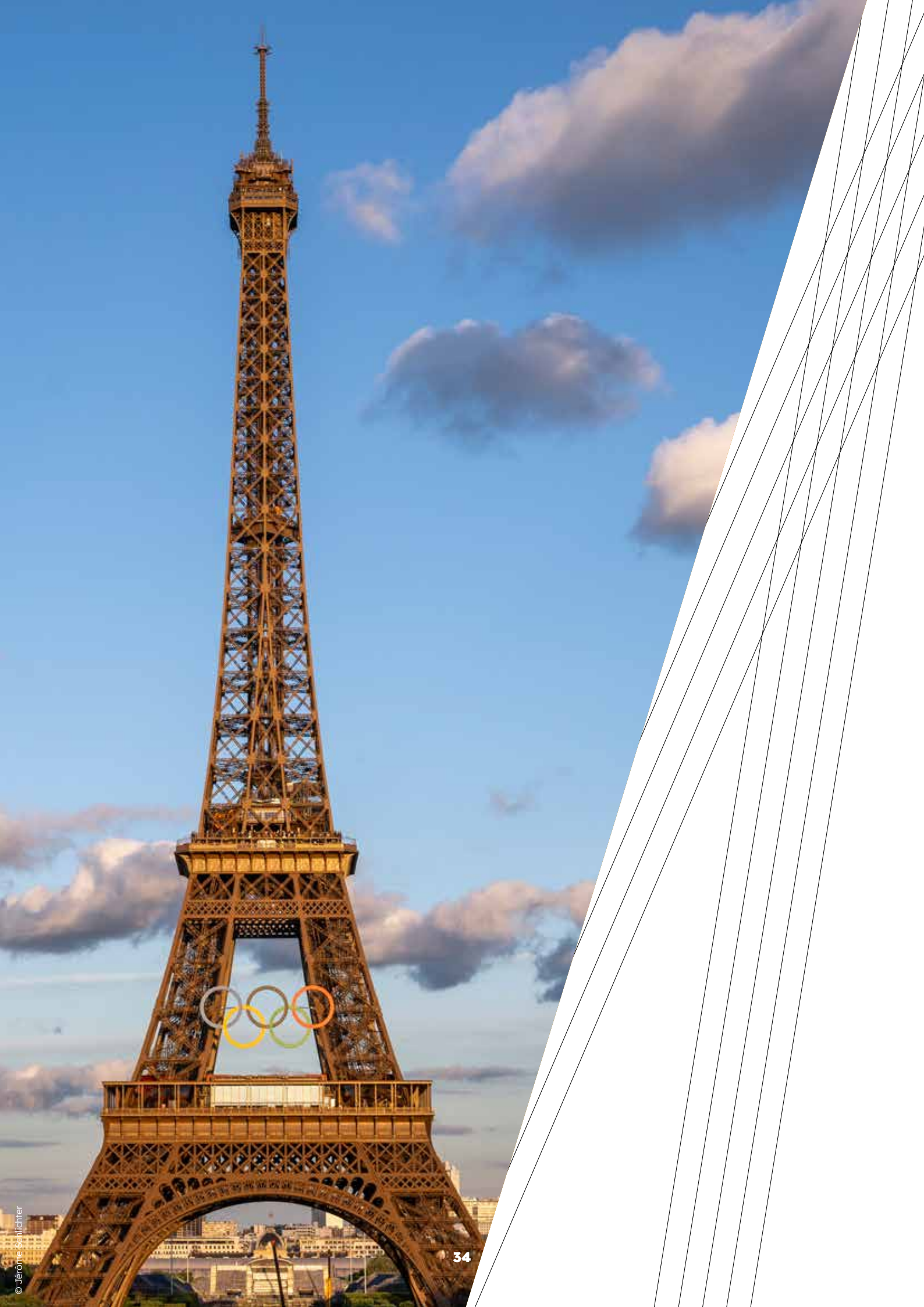
Michael Canitrot during the Monumental Eiffel Tower show to mark the 100th anniversary of Gustave Eiffel's death

Artistic shows and fireworks

Ever since it was built, the Eiffel Tower has had close connections with pyrotechnical displays. The first took place before the Tower was even finished, on July 14, 1888. On June 17, 1989, an exceptional show was organized by Paris City Hall, retracing 100 years of history in connection with the Tower. Singers, dancers and acrobats performed amid a magical blaze of multicolored lasers. Ten years later, on the night of December 31, 1999, the Eiffel Tower rang in the new millennium and wowed the whole world with a spectacular ballet of fire and light, broadcast internationally on 250 television channels. An unforgettable show!

The year 2009 was also one to remember, with celebrations for the Tower's 120th birthday. Starting with a concert by Johnny Hallyday on Champ-de-Mars, this magical moment saw video projections light up the Parisian cityscape for the first time. The monument came alive, dancing on its pillars and even spinning to the beat of the music, to the great delight of the 700,000-odd people in attendance. Other highlights include Bruno Seillier's show in May 2019 to celebrate the 130th anniversary of its opening to the public, and DJ-producer Michael Canitrot's show to mark the centenary of Gustave Eiffel's death in 2023.

Every year, pyrotechnicians put their creativity to the test by offering the public increasingly stunning shows for Bastille Day, launched from the Trocadero gardens or the Tower itself, making full use of its structure.



Cinema & the Eiffel Tower: born at the same time

In 1897, when the Tower was just 8 years old, it discovered the beginning of stardom under the lens of the Lumière brothers, who installed their camera in the elevator and filmed the Palais du Trocadéro, the esplanade and gardens as it ascended, through the monument's metal structure. The first vertical tracking shot in cinematic history was born, and the Iron Lady's film career had begun!

Since then, the Tower has enjoyed a long love affair with filmmaking, a passion that has not grown cold over time. From the beginnings of cinema to the present day, its presence lends a timeless or romantic touch to productions.



Action, romance, science fiction... the Tower can act in any genre



Shooting the Sense8 series

The film career of the famous Iron Lady would put a good number of young stars to shame, given how rich and varied it has been. Her graceful silhouette appears in dozens of films, with action everywhere, from the underground machinery to the top.

She owes her first success to Louis Feuillade and inspector Juve, who valiantly climbed the monument in pursuit of *Fantômas*. She also plays a symbolic role in many apocalypse films and is the target of alien attacks. From *War of the Worlds* (1953) to *Mars Attack*, (1996), *Independence Day* (1996), *Men in Black* (1997), and *Armageddon* (1998), she has been a hot favorite with science fiction and fantasy.

She has also been the backdrop to many

human exploits. Alain Pol filmed the ascent of four mountaineers in *A l'assaut de la tour Eiffel*. A few years later, in 1994, another ascent marked the memories of young cinephiles: that of Mimi-Siku, a young Indian in *Un indien dans la ville*, by Hervé Palud.

But undoubtedly, romance is the favorite. In *Ninotchka*, a 1939 film by Lubitsch, the the Tower sees the icy Garbo discovering Paris, champagne and the seduction of an aristocratic Latin lover. In 1959, Fred Astaire meets Audrey Hepburn there in *Funny Face*. More recently, it has even inspired Bollywood, and in 2016, was a backdrop to the romantic comedy *Befikre*, the first Indian film shot entirely in France and in Paris especially. In autumn 2017, the final episode of the Netflix series *Sense8* was shot on the monument's walkways.

More recently, the Eiffel Tower hosted the filming of the series *Cat's Eyes* in 2023 and *Emily in Paris* in 2022.

From the beginning, the Eiffel Tower has captivated audiences and nurtured the fantasies of many directors. The Iron Lady has made over a hundred screen appearances in films, cartoons, animated features, series, and documentaries. And the enthusiasm does not look likely to die down!

Practical information

The Eiffel Tower is open every day from 9:30am to 11:45pm in low season and from 9am to 12:45am in high season.

Prices

Elevator ticket (to the top):

Adults _____	€35.30
Youths 12-24 years _____	€17.70
Children 4-11 years _____	€8.90

Stairs + elevator ticket (to the top):

Adults _____	€26.90
Youths 12-24 years _____	€13.50
Children 4-11 years _____	€6.80

Elevator ticket (to the second floor):

Adults _____	€22.60
Youths 12-24 years _____	€11.30
Children 4-11 years _____	€5.70

Stairs ticket (to the second floor):

Adults _____	€14.20
Youths 12-24 years _____	€7.10
Children 4-11 years _____	€3.60

A unique experience!

Children under 4 visit the Tower for free.

Top tip!

Choose a ticket via the stairs (valid to the second floor).

You can climb to the first floor via the stairs in approximately 10 minutes, at the heart of the structure of the Iron Lady.

Information & bookings: www.tou Eiffel.paris

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