The Fountain of Neptune is restored to its original splendour
The restoration was financed by Salvatore Ferragamo’s donation for the arts

After two years of meticulous, complex restoration work, the Fountain of Neptune in Piazza della Signoria is unveiled to the public in all its ancient glory, and Florence’s most famous fountain is
more triumphant than before now that its water supply system has been rebuilt to feed water to
the majestic jets that, for the first time in history, will spray the way Bartolomeo Ammannati, the
fountain’s designer, dreamed they would.

The restoration of one of Florence’s most well-known and well-loved monuments - presented 500
years after the birth of Cosimo I (who commissioned the masterpiece) and Caterina de’ Medici -
cost €1.5 million, financed by Salvatore Ferragamo through a tax-deductible donation for the arts
as part of the Italian government’s “Art Bonus” program.

Divided into three sections, the work began in February 2017 and initially hid from view the statue
of Il Biancone – The White Giant – as Ammannati’s Neptune is affectionately called. Guided tours
of the worksite were offered along a protected path, allowing about 2,000 people from 90
different countries to see the various stages of work. The project included the complete
reconstruction of the fountain’s water supply system, which had broken repeatedly and
functioned so poorly in recent years that only now can it be considered completely in line with
Ammannati’s original designs.

“We are finally giving the city back one of its most well-loved symbols,” announced the Mayor of
Florence, Dario Nardella. “Completely restored, Ammannati’s fountain is truly beautiful and awe-
inspiring. We are delighted that everyone may admire the fountain once again and that it has been
brought back to life with new, choreographic jets of water harnessing all the force that the
sculptor imagined and destined to enchant visitors. We would like to thank Ferragamo, which has
shown great insight and sensitivity in partnering with us for this project in a genuine act of love for
our city, and to Teatro del Maggio Musicale Fiorentino for having planned an unveiling celebration
worthy of Florence.”

Ferruccio Ferragamo, Chairman of the Salvatore Ferragamo Group, added, “It has been a privilege
for our company to support this important restoration project and see this work of art restored in
its full splendour to Florence, its residents and the many travellers from around the world who
visit the Tuscan capital every year. This is the result of a virtuous partnership between the public
and private sectors and it is our family’s way of thanking the city and upholding the close
relationship that my mother and father forged with it. This project is a tangible expression of our
gratitude to Florence.”

To celebrate the unveiling of the restored fountain, Teatro del Maggio Musicale Fiorentino has
planned a performance held on 25 March at 8:30 pm, “E nel marmo e nel bronzo mise acqua e
fuoco” (Marble and fire in water and bronze), inspired by the spirit of Renaissance and Baroque
festivals reinterpreted in a contemporary light, with the use of modern technologies like
projections, lights and sounds. Giovanni Vitali wrote the text and play, Alessandro Riccio adapted them for the theatre and Saverio Santoliquido created the scenes set to music by Jean-Baptiste Lully and Georg Friedrich Händel. The fountain’s history is told through a theatrical performance and a series of abstract scenes presenting various forms of acrobatics: aerial silks and an aerial hoop, the trapeze and contortionism (curated by Fondazione Cirko Vertigo). It begins with an explanation of the various social, political and historical reasons behind Cosimo I de’ Medici’s decision to build the fountain in Piazza del Duca, describes the challenges faced in obtaining a block of white marble from the Apuan Alps and the bitter disputes among Florentine artists, most notably between Bartolomeo Ammannati and Benvenuto Cellini, and ends with the crucial role that the Duchess Eleanor of Toledo, Cosimo’s consort played in the unfolding of events.

“We are thrilled to pay tribute to the unveiling of Ammannati’s fountain restored to its original splendour with a spectacular performance created by Maggio that evokes, with contemporary, theatrical appeal, the spirit of Renaissance and Baroque festivals,” announced Cristiano Chiarot, Superintendent of Maggio Musicale Fiorentino. “One of our theatre’s missions is to culturally enrich important events in the life of the city. This is an emblematic occasion in which a symbol of Florence is restored to the city through a virtuous public/private partnership and Maggio Musicale Fiorentino had to be a part of it.”

**History**

In 1559, Cosimo I de’ Medici announced a contest to create the first public fountain in Florence, and the most important Florentine sculptors of the time participated. Bartolomeo Ammannati’s Neptune was selected, as it was considered the most significant exaltation of the Tuscan Grand Duke’s glorious rule over the seas in those decades. The monument was sculpted between 1560 and 1565, and while it was temporarily opened to celebrate the marriage of Francesco I de’ Medici with the Grand Duchess Johanna of Austria on 18 December 1565, it was not definitively completed and officially inaugurated until 24 June 1574.

The figure of Neptune, sculpted out of white Carrara marble, bears the features of Cosimo I de’ Medici and rises above a pedestal in the centre of an octagonal pool containing four chariot horses. At Neptune’s feet, three Tritons play auluses that spray water. At each corner of the pool stand groups of sea gods (Doris, Thetis, Phorcys and Glaucus), each with a cortège of bronze nymphs, satyrs and fauns sculpted by Ammannati. When it was first unveiled, the Florentines criticised the marble sculpture, calling Neptune *Il Biancone* and deriding the artist with the famous joke, “Ammannato, Ammannato, what beautiful marble you have wasted.”

Following its completion, the fountain underwent a long and troubled series of repairs and maintenance. The first documented damage dates back to 1581 and in 1592 a protective enclosure had to be built around the monument. In 1831, a faun on the corner nearest Palazzo Vecchio was stolen and was replaced the following year with a copy created by Vincenzo Pozzi. The horses’ hooves cracked in 1981, 1986 and 1989, and in 2005 vandals caused Neptune’s right hand to break off.

In the 1720s, both the monument and the water pipes leading to it were restored by Giovanni Battista Faggini and later subject to substantial work by the architect Giuseppe del Rosso (1812). In 1943, the bronze statues were removed and protected from bombing during the war. The water treatment systems that had been used over time were updated when, in 1986, a yellow patina began to appear on the surface of the marble. The first system installed before the 1966 flood was destroyed by the flood waters. Repaired and updated on several occasions, it was reactivated in 1993 solely to filter the recycled water. Until then, unfiltered water had been fed from the aqueduct into the fountain’s water pipes.
Over the past few decades, each time maintenance and repairs were carried out, the discolouring that appeared after 1986 returned. Specifically, the white marble turned yellow due to the migration of ferrous substances or other metals shed by the pipes as the chemical additives used for water treatment, like chlorine and salt, passed through.

The restoration

Florence’s municipal department of Servizi Tecnici e Belle Arti managed the project. Several different firms were involved over the months: Ram Restauri Artistici e Monumentali for the marble, Ires for the bronze, with Nicola Salvioli acting as Scientific Supervisor, Berchielli Gino for the hydraulics and Masi S.r.l. for the electrical system. The marble presented various types of damage: extremely dark, nearly black patina due to deposits of atmospheric particles and algae and considerably thick, extensive limescale on the surfaces where the water flowed. In addition, many areas had been stuccoed to repair cracks and breaks in the sculptures. The marble was cleaned with natural fibre brushes to remove inconsistent surface deposits like dust and guano, before being treated with biocidal products to remove patinas and biological formations.

The cleaning entailed both chemical and mechanical techniques. Lasers had to be used to remove the layer of blackish grey limescale. The removal of this layer revealed bright green spots in certain areas under the bronze elements, like Neptune’s crown, which had significantly discoloured the white marble, the direct effect of the substances that caused the same bronze elements to deteriorate (copper salts). Products of oxidation were removed and absorbed by applying extractive mixtures made of cellulose paste or compound gels with tetrasodium EDTA, ion-exchange resins, Rochelle salt or sodium hexametaphosphate, depending on the type of decay to be treated. A polysiloxane polymer was applied as the final, water-repellent protective coating.

The bronze elements also presented widespread discolouring, alternating from the light green of the water pipes, where the copper had oxidised, to the blackish brown of pollutants, atmospheric particles and significant limescale. Vast sections presented corrosion and water erosion. To properly restore the surface of the bronze, these parts had to be dismantled and taken to a restoration laboratory, where they could be initially washed with deionised water and their surfaces cleaned with soft silk brushes to remove incongruous deposits, corrosive-causing dust and guano. The cleaning techniques were mainly mechanical, using pneumatic and manual instruments to remove limescale and corrosive products, with a final wash to stabilise the surface before applying several protective layers of glazes and waxes. The entire restoration of the marble and bronze statues was overseen and supported by scientific studies of the Opificio delle Pietre Dure and CNR-ICVBC E CNR-ISMAR, under the supervision of Florence’s Superintendence.

Equally important, in addition to the restoration of the statues, another essential part of the project involved rebuilding the fountain’s water supply system. All the old pipes were removed inside the fountain and in the crawl space between the statues and the underground rooms below Palazzo Vecchio. The new pipes installed in the statues are exclusively in stainless steel, and the underground spaces were reclaimed, with the demolition of all the fire-prevention tanks built before World War II, which are no longer usable. These underground spaces, located below Palazzo Vecchio’s Arms Room, were used to house the new water treatment, recycling and pumping system that will supply water to the fountain. Significant quantities will flow to the fountain - roughly 27 litres per second - finally creating, after decades of malfunctioning, the spectacular effects that Ammannati dreamed of.
The restoration in figures

Ten people worked on the project and works oversight, with 20 experts working in the three sections of the restoration work.

- **restoration of the statue of Neptune and the chariot**
  - Laser used to clean the marble: 1,250 hours
  - Marble surface covered by cleansing mixtures: 1,000 m² (2 m³ of Arbocel and 2,000 litres of demineralised water)

- **restoration of the bronze statues and the pool**
  - Demineralised water used to wash the bronze statues: 12,000 litres
  - Restoration of the bronze statues: 3,200 hours
  - Total weight of bronze pieces: 6,700 kg

- **water treatment and supply system**
  - Electrical capacity for jet pumps: 50.00 kW
  - Volume of the pool: 35 m³
  - Volume of the reservoir: 20 m³
  - Total system capacity: 27.00 litres/second, 1620.00 litres/minute, 97,200.00 litres/hour