

“Águas Livres” Aqueduct



Earlier visitors to Portugal considered the “Águas Livres” Aqueduct to be the city's loveliest construction. By this they meant the most impressive section of Lisbon's water supply system which spans the Alcântara valley to the northwest of the city.

Water passes above the valley for 941m/3,088ft. The aqueduct is supported by 35 arches (14 pointed arches in the center and 21 rounded arches at the sides), the tallest of which measures 62m/203ft high and 33.7m/111ft wide. Footpaths 1.4m/5ft wide run along both sides of the aqueduct at a height of 65.3m/214ft. The section of the aqueduct spanning the Alcântara valley is visible from afar but actually forms only a small part of the 18.6km/11.5mi long pipeline; the full length of the aqueduct, including its tributaries, totals 58km/36mi and 127 arches had to be built. Around Lisbon and within the city itself parts of the “Águas Livres” Aqueduct continually appear. In some places the pipeline is supported by pillars, in others, where the water flows underground, only the little ventilation shafts can be seen. The construction of a water pipeline had been under discussion since the time of Manuel I. It was supposed to solve the city's yearly summer water shortage and the ensuing hygiene problems.



For some time the idea of transporting fresh water into the center from the springs (known as “Águas Livres”) at Caneças to the north of Lisbon had been considered. During the reign of Joao V, who had a love of anything grandiose, the project was finally tackled. Although sufficient funds were available at that time from Brazilian goldmines, the construction had to be financed through public taxes, as Joao's priorities were for prestigious and sacred buildings. Work on the aqueduct took place over several decades.



Building started in 1731 under the direction of the Italian Antonio Canevari, although shortly afterwards Custódio José Vieira and Manuel da Maia, both Portuguese, took charge. The latter was heavily involved in the reconstruction of Lisbon after the earthquake; he first made his name through the building of the aqueduct, which survived the earthquake undamaged. The crossing of the Alcântara valley was completed in 1748, immediately guaranteeing the city's water supply. The complete water pipeline continued to be worked on until the 19th century. The construction is based on the principle of gravity. Water flows for kilometres into the city at a constant rate, partly underground, partly at ground level or - as at Alcântara valley - at a height of approximately 65m/213ft. The gently sloping style of the aqueduct - at its beginning it measures 178m/584ft high and at its end 94.3m/309ft - meant that water could be transported to Lisbon and collected there at Mae d'Água, a castle surrounded by water at the Jardim das Amoreiras.



Until 1880 Lisbon's water demands were mostly met by the aqueduct, but then the increasing needs of the growing city rendered its capacity insufficient and a new main was constructed. Although the whole extent of the “Águas Livres” Aqueduct could be used in principle today, it was finally closed down.

The “Águas Livres” Aqueduct was open to the public until 1853. It served the inhabitants of the suburbs as a short cut across the Alcântara valley. Attacks by the then famous/infamous robber Diogo Alves, who lay in wait for his victims up on the other side, robbed them and pushed them over the edge into the valley below, together with the increasing number of suicides led to the crossing being closed off. For some years the aqueduct was opened at weekends in the summer for visits and for walking across.



From the aqueduct an interesting view across the Alcântara valley with its network of roads the Tagus can be enjoyed. The northern view includes the railroad line to Sintra, as it leaves the 2.6km/2mi tunnel which passes under the city.

Other Related Attractions

Arco das Amoreiras



The last part of the “Águas Livres” Aqueduct follows the Rua das Amoreiras. The arch of the aqueduct, which spans the road and which was also designed by Carlos Mardel, looks very spectacular. It was constructed in 1748 in the shape of a Roman triumphal arch. At this point the water pipeline turns off at a right angle to the “Mãe d'Água”.

Mãe d'Água das Amoreiras

The large “Mae d'Água das Amoreiras”, a castle surrounded by water, at the Jardim das Amoreiras served as a reservoir for the water conveyed across the “Águas Livres” Aqueduct. The architect Carlos Mardel, who later played a large part in the reconstruction of the Baixa, drew up the plans for the castle in 1752, but it was not finally completed until 1834. From outside the functional looking building with 5m/16.5ft thick walls appears very severe and plain. It occupies 5,500 cubic m/21,582 cubic ft. A bust honouring Manuel da Maia, the architect of the aqueduct, stands in front of the entrance.

The interior of the castle is very impressive. The wall leading to the aqueduct has been turned into a grotto, above which the water runs down to the large basin. The foundations of strong pillars, which support the roof of the hall, are buried in the basin. This room, with its unusual atmosphere, is mainly used for art exhibitions - a very successful setting for such a purpose. A flight of steps leads to a roof terrace from which there is a panoramic view of the city. From the steps it is also possible to look into the interior of the aqueduct.

