



Plan N →

MOBILITY IMPROVEMENT IN A MOUNTAIN CITY

The city of Covilhã, Portugal was developed mainly on one of the ridges between the abrupt valleys of Carpinteira and Goldra's rivers, the prime source of water and energy for the wool industry that flourished in this region for five centuries. The city center is at around 670 meters in height, with a defensive wall, with distant views toward Eastland, to Spain.

In the 18th century, the first industrial park was planned by the crown and several factories were constructed in stone by hand with the help of horses benefiting from the river beds. As such, the city expanded first to both sides of the abrupt valleys and remained for centuries based on the textile factories. The train arrived in 1900 at the 530m level. In the last 40 years most factories were abandoned leaving behind an enormous heritage of vacant industrial buildings, many in ruins, some occupied by a major state university, underlining the city's charisma. The housing expanded through the plain above the train level, away from the steep slopes, mainly due to difficult accessibilities, and by access of private car. **The traffic jam began a big mess for a city with just 36.000 inhabitants.**

Under a national urban renewal program, our team coordinated by Arch. Nuno Teotónio Pereira and myself as Landscape Architect, developed a Plan in 2002 that aimed to revitalize many aspects in the valleys, and revamp the abandoned beautiful old buildings. The plan also aimed at the improvement of pedestrian mobility based by the concept of "Flating the City", establishing bridges and public elevators to connect valleys and far residential quarters, remote and steep housing. In complement we also promoted parking places for the inhabitants from around in strategic locations with easy access to the centre above. The plan also included the development of some public parks and gardens and several squares not included in this presentation.

The first inclined lift was built in spring 2009 with an enormous success. The Santo André Inclined lift linked the daily market in the historical centre village with the university below the south side. In the autumn 2009, the first pedestrian bridge project of Arch. Carrilho da Graça (as the other 3 bridges not yet built) was built shortening enormously the distance from the centre to the neighborhood north side of the valley. Both interventions were so successful, that the mayors decided for more 3 lifts, included one to link the train station to the centre town. The lifts are free of charge, as a common building lift, because it was more expensive to have people driving it. The inclined lifts have almost the same rules as vertical, with doors every 11 meters, and obstacles walls of 2,5 meters height, or isolation by strong shrubs, and doors every 11 meters.

Assessment / evaluation

The intervention represented a major city improvement in several aspects. By enhancing pedestrian mobility, benefits were tangible not only through reduced used of cars improving environment and people's health, but also as the time factor. On average, from the new the expansion areas, it takes now just less then ten minutes to get to the city center, while before, on foot, it would take more than 45 minutes. By car it could take sometimes more than 20 minutes to cross the center village while now, people leave the car in a parking place near the Goldra's Lift and, through 2 interconnected elevators can reach the center in less than 5 minutes.

- 1 Goldra inclined lift
- 2 St. André inclined lift
- 3 Funicular S, João
- 4 Public Garden lift
- 5 Bridge over carpinteira
- P Bridges in project