



Footbridge over the Tirón River in Haro (Spain). A Sustainable design inspired by the wine culture

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Summary

The town of Haro, located in the northern part of Spain, is one of the most relevant sites of La Rioja region, well known because of its important high-quality red wine production. Wine is the vital and cultural expression of the town and is at the same time its main tourist interest, as it hosts some of the oldest and best known wine cellars of the region. The new footbridge is part of a pedestrian connection to link the historic centre with the district where most of these cellars are located. The design intends to be attractive, adapted to the soft topography of the river banks, sustainable, strongly related with the wine culture of the region, but without forgetting elegance as a main target. These objectives were achieved with an innovative three-span variable-depth beam design, made of stainless steel and with a composite-wood decking. An efficient structural scheme and the reduction of maintenance costs make compatible the use of high-quality materials with a reasonable budget.

Keywords: Wine culture; elastically-fixed arch-beam; stainless steel; structural efficiency; micropile foundations; sustainability; durability; aesthetics; structural architecture.

1. Introduction

Located in the northern part of Spain, the small town of Haro (13.000 inhabitants) is one of the most relevant sites of La Rioja region, well known because of its important high-quality red wine production (generically called Rioja wine).

Wine and wine yards are the economic and industrial axes of Haro and its surroundings. Wine is more than a product in Haro; it is the vital and cultural expression of a whole town, known as La Rioja Capital.

Haro holds some of the oldest and best known wine cellars of the region, wine being the main tourist interest of the town. Almost every visitor goes to know the wine cellars and to try grape juice.

Most of them are located in the so-called Station District, also known as the Wine Cellar District, in the northern side of the village, outside the town centre (but not far from it) and on the opposite (left) bank of the Tirón River (in orange in Fig. 1).

The town is also a significant historic place, but sometimes visitors leave the area without having seen anything more than the Wine Cellar District due to the barrier constituted by the LR-111 road (also known as Wine Coast Avenue) and the river itself, whose nearest crossing point is the so-called Stone Bridge.

The current path to reach the town centre from the Wine Cellar District force the visitors to move to its western end to get to the existing bridge (about 400 m through the LR-111 road), cross the river (about 150 m) and go up through the narrow sidewalks of Navarra street (200 m) to reach La Paz square, the heart of the town centre. This long and not pretty way dissuades many tourists, who prefer to leave the town to other destinations after visiting the wine cellars.

This is the reason why La Rioja Government decided to study a pedestrian connection to link the