

Panel 8 : From one bank to another

Up until the 19th century, crossing from one side of the Dordogne and the Isle to the other was only possible by ferry in Libourne. The Cavernière transported passengers from the port of Libourne to that of Caverne near Saint Loubès, thereby bringing them into closer contact with Bordeaux. This type of transport was not without its drawbacks. It was relatively slow, and the number of passengers and amount of freight was limited to the boat's capacity. It was also subject to the vagaries of the weather, such as storms, frozen rivers and floods, and this regularly interrupted the service. Sometimes the clumsiness of the helmsmen even put travellers at additional risk. For example, 80 passengers on the Fronsac ferry drowned when their boat capsized in 1748.

Between 1824 and 1831, these ferries slowly disappeared and were replaced by bridges. The Pont de Pierre over the Dordogne was opened in 1824. The Pont de Fronsac over the river Isle was completed in 1831.

It is not only technological innovations but also legal innovations which enabled their construction.

The legal innovations originated from the creation of private companies which took the place of the state in bearing the costs and responsibility for the construction of the bridges in exchange for the right to charge a toll which would last several decades. It is a system similar to that of tolls used on our motorways today.

In this way, construction of the Pont de Fronsac was coupled with the creation of rights of way which were to apply for 60 years. Every pedestrian paid 5 centimes, including every '*child of walking age*'. All animals were subject to tolls, including geese and turkeys. The owner had to pay 2.5 centimes per pair or 1 centime per individual. The toll also applied to wagons, carts and cars wishing to cross the river. It was 2.50 francs for a four-wheeled car and six horses. Even '*a wheelbarrow pushed by a man*' cost 10 centimes.

In the 1830s, the most visible and modern technical innovations could be seen on the Pont de Fronsac. The bridge was a suspension bridge, a modern technique invented in America less than twenty years earlier and first applied in Passy near Paris, then in Tournon sur Rhône in 1825 after the engineer Marc Seguin had developed the metal cables which stiffened the structure and gave it its stability.

Consequently, it was at that time a rare and very modern structure. It had the advantage of being quicker and cheaper to build than a stone bridge as it avoided any difficulties created by the muddy riverbed and the strong current. The success of this technology led in the following years to the construction of many other suspension bridges over the Isle and the Dordogne.

The construction of the Pont de Fronsac made it possible to create a road link between Libourne and the areas around Cubzac and Blaye which, over the years, became more popular than the traditional river link. As a result, traffic across this bridge just increased. This happened to such an extent that in the 1910s it was decided to build an electric tramway line between Libourne and Saint-André-de-Cubzac.

The question of crossing the Isle had to be looked into again as the suspension bridge could not support this new crossing. By creating the Saint-André-de-Cubzac - Libourne tramway line, the département was offering the people of Libourne a new means of transport. In the face of increased 'mobility' at the end of the 19th century, the General Council had already studied the modifications which would need to be made to the suspension bridge. These included the creation of two carriageways covering a total width of 4.30 m, the addition of angled cables and a metal guardrail to make the bridge more rigid. It had to be able to withstand heavier traffic and heavy loads of stone or wine. Like the new suspension bridges built upstream (Guîtres, Coutras, Savignac-de-l'Isle), it had to '*provide a pavement on either side for parking or for keeping pedestrians safe (...). Each pavement would be 0.54 cm wide*'.

In the end, it was decided to build a new structure for the tramway. It was inspired by the footbridge designed by Gustave Eiffel so that trains could cross the Garonne in Bordeaux and reach the Saint-Jean train station. The use of riveted sheet metal, flat and crossed stiffeners, provided resistance to vibration and allowed for increased spans. The 52 metre-long, 120-tonne deck was built in the workshops of the Dyle et Bacalan company near Bordeaux. The tramway line was completed in 1913. It was to remain in service for 36 years until the line was closed in 1949. It also lived through two world wars.

The Fronsac suspension bridge and the tramway footbridge were blown up on 28 August 1944 (like all the bridges in Libourne) by the German army to cover its retreat.

The road bridge was rebuilt. This is the structure which you can see today. It has a special feature which was quite innovative at the time of its reconstruction. It was built using the technique of prestressed concrete. This means that its concrete masonry elements are hollow and crossed by metal cables in tension, which ensures the rigidity and stability of the structure.

The tramway footbridge, which was less badly damaged, was repaired but lost its usefulness after the line was closed. It was therefore decided to demolish it. Its disassembly was spectacular. Stacked planks were used to accommodate the metal structure, which was detached from its anchors on the banks. More planks were stacked on a former American 600-ton barge which had been used on the beaches of Normandy for the tank landings. This powerful boat was positioned under the bridge and transformed into a lifting device with the help of the rising tide. Teams under the direction of the chief engineer from the company *Grands Travaux de Marseille* then proceeded to moor the structure to secure its removal. It was placed beside the Quai de l'Isle with the help of winches and cut up using a blowtorch.

This is an illustration of how a people and their century can change, and of how their constructions as a result vanish.



HOTEL DE VILLE

42 place Abel Surchamp
33500 Libourne

HORAIRES :
8h30 > 12h30
13h15 > 17h