

Pont-du-Gard and the construction of Nîmes' aqueduct

Introduction:

The aqueduct of Nîmes and the '*Pont du Gard*' is one of the most well preserved Roman aqueducts that there is today. This provided the people of Nîmes with fresh water to their baths, fountains and homes, creating a fundamental aspect of each and every citizen's daily life. The whole structure portrays the vast extent of Roman capabilities in science and engineering. Hauck describes the aqueduct as 'a real mark of civilized living — more, even, than the Latin language'. (Hauck 1988, ix).



Fig. 1. '*Pont du Gard*' Bridge

Castellum Divisorium:

The Castellum was located at the end of the aqueduct in the town of Nîmes and this where the water ended up as it was a large basin with multiple pipe lines linking to areas around the town in which the water was dispersed to. This is one of only two 'Castellums' which are this well preserved, the other one being at Pompeii (Hodge 2002, p. 285).

One notable thing is that there were three larger drains in the floor which was potentially used to flood the amphitheatre nearby in order to allow *naumachia* to take place; this was where a 'mock naval battle' would be performed (Hodge 2002, p. 288).



Fig. 3. '*Castellum Divisorium*' - Nîmes

Background:

The aqueduct is said to have been constructed around 19 BC during the time of Augustus, on the orders of Augustus' close friend and son-in-law Marcus Agrippa who had a 'great passion', for water supply, at times, using his own personal funds to finance these public projects (Hauck 1988, p. 2.). Alternatively, there is evidence to suggest that the construction of the Aqueduct began roughly during the middle of the 1st century AD, as Guilhem Fabre and his team of archaeologists discovered that the earliest coins at the end of the Aqueduct in Nîmes are from the reign of the Emperor Claudius from 41 AD - 54 AD (Fabre 1991). The main purpose of the aqueduct was to provide water for the Baths which required a vast amount of water in comparison to what was needed for drinking (which could have just been gathered from a well, without the need of an aqueduct), and this would serve as the social centre for relaxation and comfort (Hauck 1988, x).

Pont du Gard:

The '*Pont du Gard*', which translates to Bridge of the Gard (the River Gard), is a magnificent structure which was built for the purpose of carrying the water over the River Gardon; Hauck describes the '*Pont du Gard*' with vivid detail saying that it 'enhances' the landscape and its surroundings, 'it does not shout, but sings.' (Hauck 1988, p. 7) giving the impression that this was a great work of art, as if designed for the sole purpose of being aesthetically pleasing. Hauck continues by saying how that 'it is all the more astounding that (a) the edifice was built over 2000 years ago, (b) it was not intended to be seen by anyone except an occasional hunter or fisher, and (c) it served quite a technical, necessary function, namely as a conduit for water.' (Hauck 1988, p. 7) The bridge has three levels being a total of 49 metres high, 274 metres long and 9 metres wide at the bottom (Deming 2010, p. 176). The bridge was constructed within 15 years by a group of up to 1000 people who would have used cranes and pulleys to lift the heavy stones (Fabre 1992) which were cut in order so they would fit together by just using friction meaning they had no need to use mortar to keep the blocks together (Langmead 2001, p. 254).

Geography of the Aqueduct:

The aqueduct's water flows from the springs at the Fontaine d'Eure to the 'Castellum Divisorium' in Nîmes. The distance between these two points is only around 12 miles 'as the crow flies' but the length of the aqueduct is measured at about 31 miles due to the convoluted nature of its route. This was required due to the landscape around 'Garrigues de Nîmes' being full of valleys and hills making it highly impractical to create the aqueduct through this area. (Bromwich 2006, p. 110).



Fig. 2. Coin of Emperor Claudius



Fig. 4. Naumachia - Mock Naval Battle

History of the Aqueduct and Bridge:

After the 4th century AD, the aqueduct was no longer maintained due to the invasions of foreigners intruding with the daily regimen of the area. Thus, by the 9th century AD (at the latest), the water supply to Nîmes had stopped because of the residue and debris clogging up the aqueduct over a long period of time. (Cleere, H. p. 96.) After this time, the '*Pont du Gard*' remained intact as it was able to provide a secondary use as a toll bridge for travellers to get across the river until as recent as the 18th Century, when it required renovating. (Cleere, H. p. 96.) This is the predominant reason why the bridge is so well preserved in comparison to the rest of the aqueduct which is severely broken and worn away. Even today it attracts millions of tourists to witness the grand spectacle which was created 2000 years ago.

Conclusion:

Overall, my findings of the Aqueduct of Nîmes and the '*Pont du Gard*' have been very intriguing and the attraction that the site gains is definitely deserved. It conveys just how great the Romans were architecturally, scientifically, engineeringly and artistically because to be able to create something this vast with an efficient idea of providing water to a town is genius and is certainly unmatched for over a thousand years after the Romans abandoned the area.

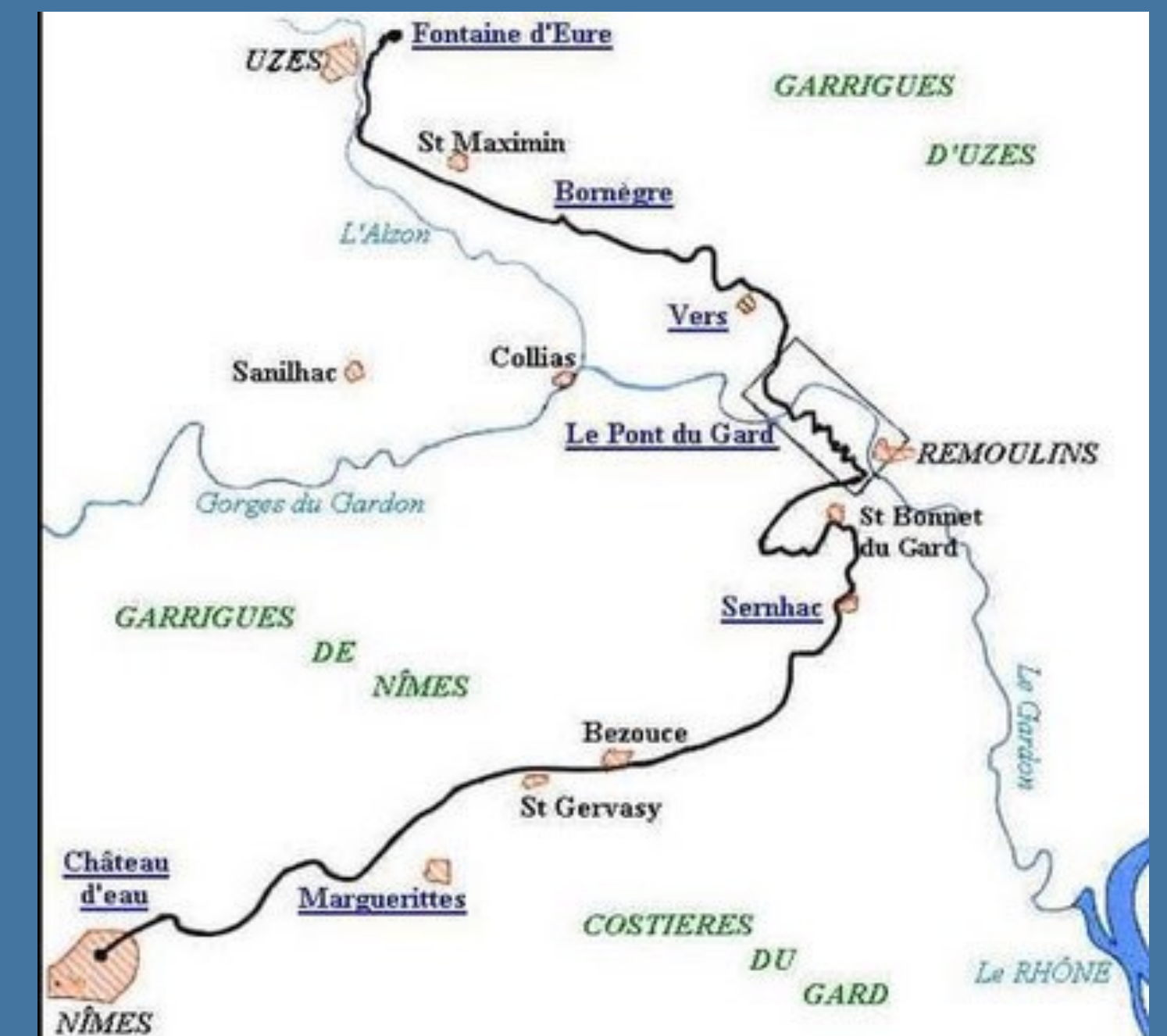


Fig. 5. Map of Aqueduct

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