

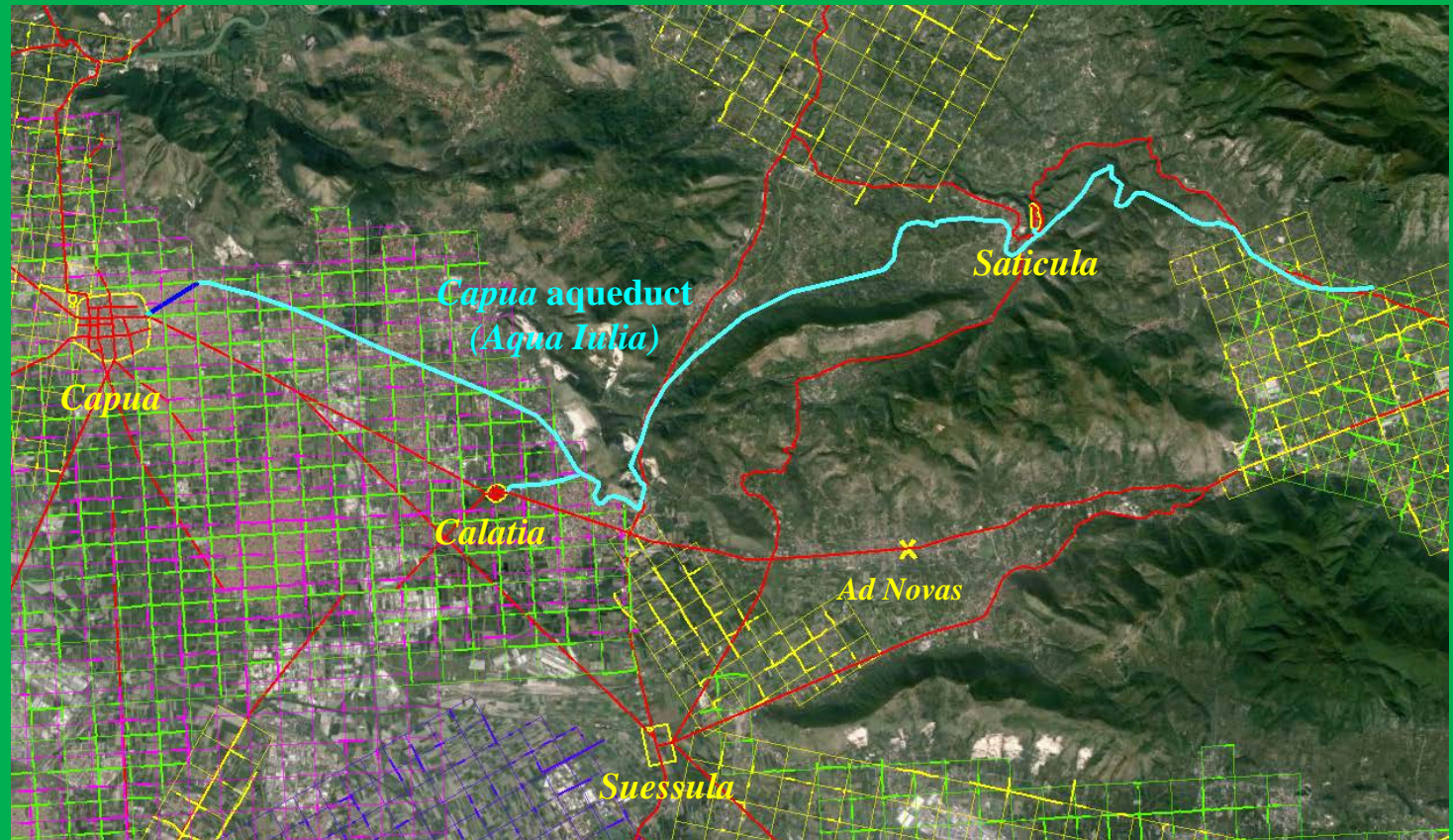
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## The Augustan aqueduct of *Capua* and its historical evolution

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Emperor  
*Gaius Julius Caesar  
Octavianus  
Divi Filius Augustus*





## Capua and some other *italicae civitates* in the Roman times.

**Capua was a very important *civitas*. Only *Roma* had a greater amphitheater (the *Colosseum*).**



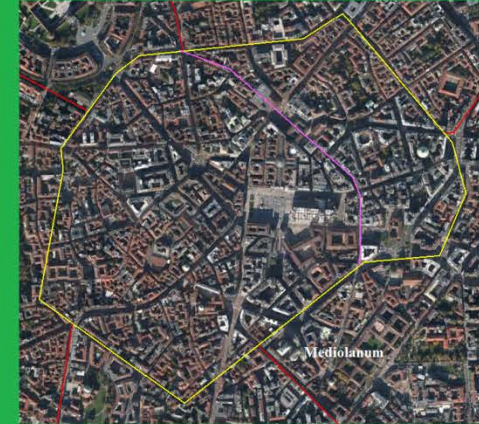
(Sorrento)



(Bologna)



(Turin)



(Milan)



(S. Agata dei Goti)



(Bergamo)



(Brescia)



(Genoa)



(S. Maria Capua Vetere)



(Salerno)



(Mantua)



(Florence)



(Naples)



(Verona)





*Dio Cassius* reports that *Capua* aqueduct was built under the order of *Octavianus Augustus* after his victory on *Sextus Pompeius* (36 BC)

It is likely that the aqueduct was active until *Alaric's* destructions (IV century AD)

There is very little research regarding the Roman aqueduct of *Capua*, which is also known as *Aqua Iulia*. We have no remains of arcades. It is certain that there are underground ruins that have not yet been investigated.

In *Capua* there are only a few modest remains of the *castellum aquae*.



Remains of the *castellum aquae*  
of *Capua* (S. Maria Capua Vetere)

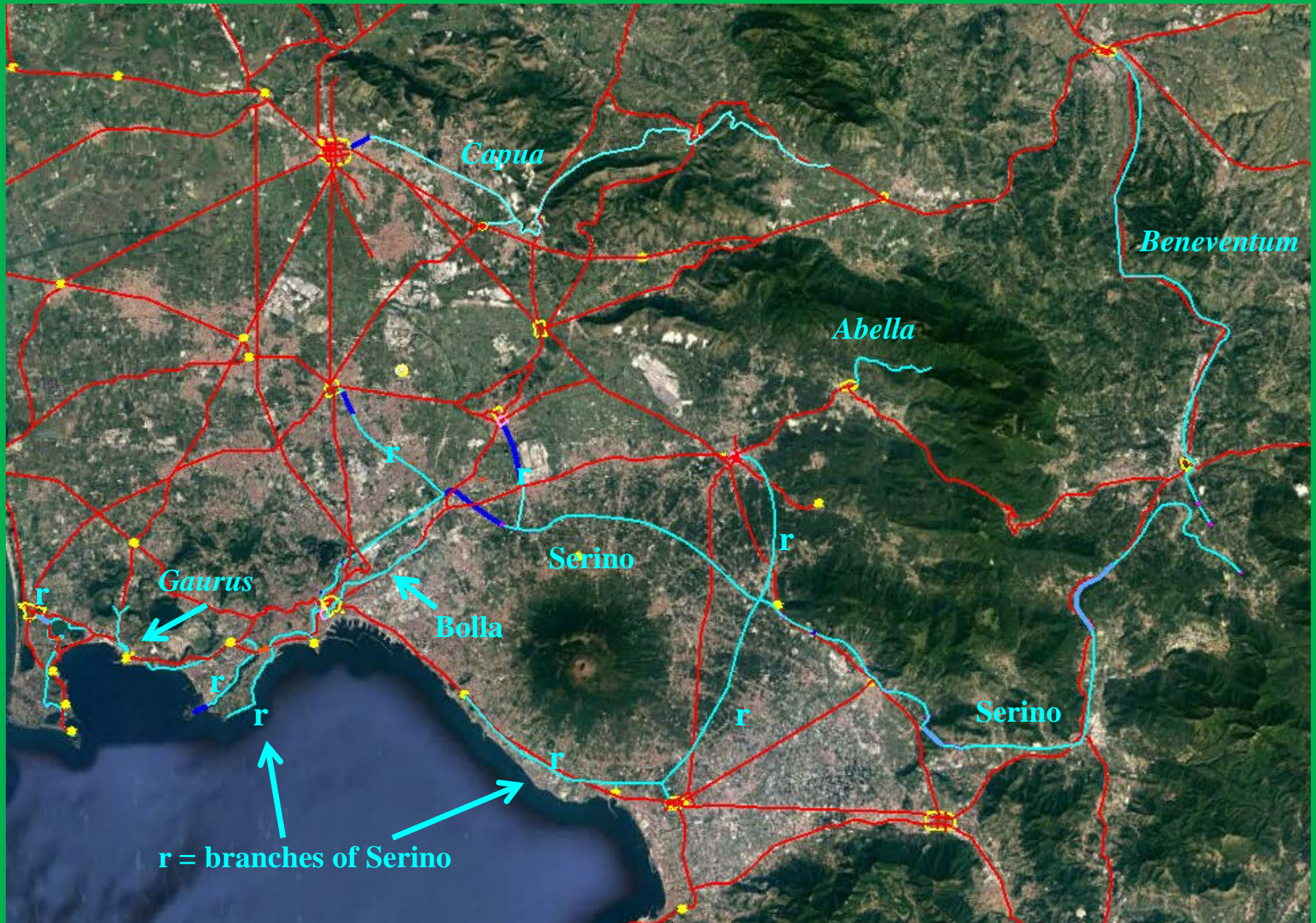
*Capua aqueduct and the served civitates (Capua, Calatia, Saticula) in Campania (Italia)*



**Length of the main trunk: about 36 kilometers.  
Served population: about 80.000 persons.**

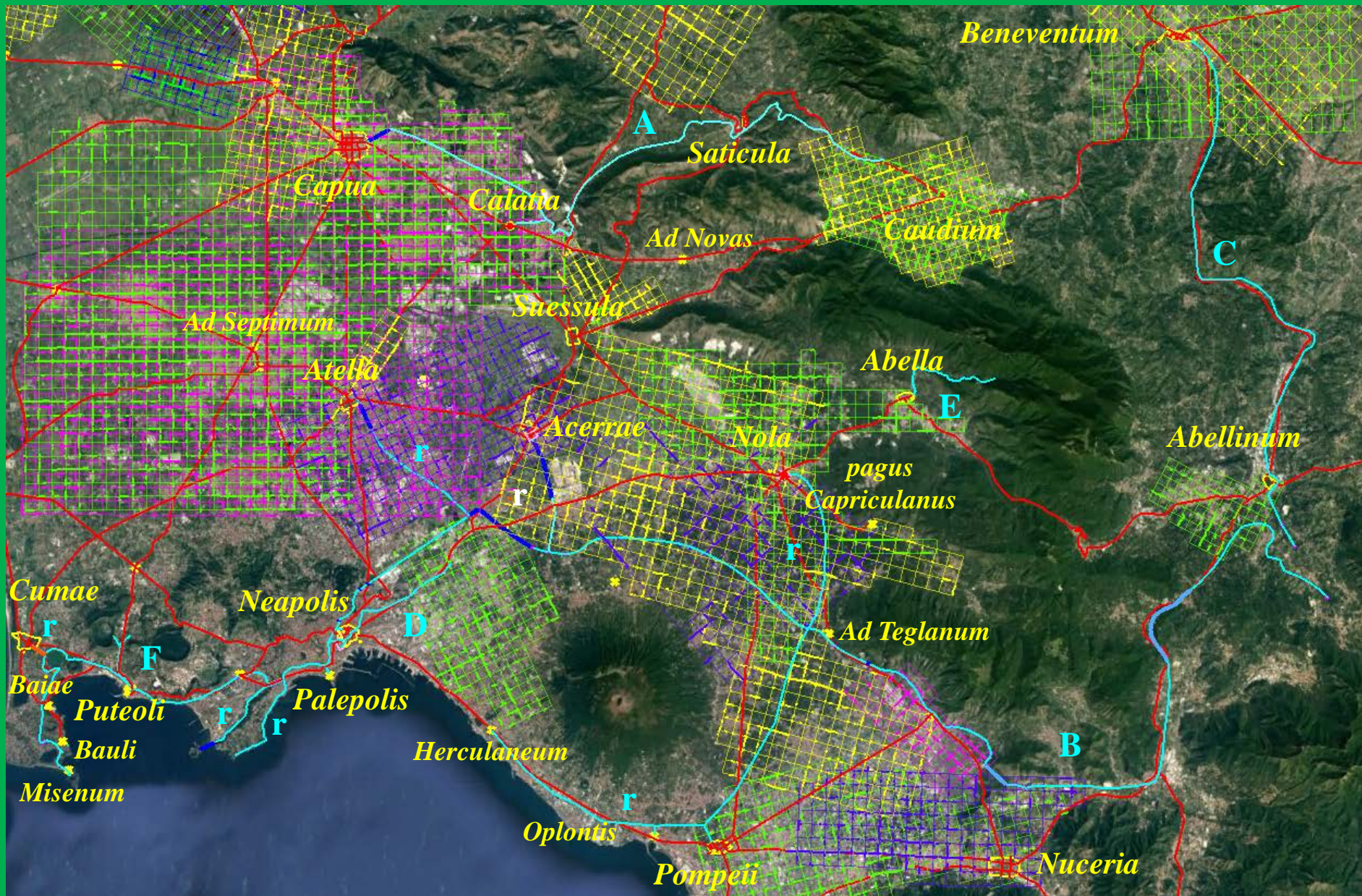


## General view of the Roman aqueducts in *Campania*





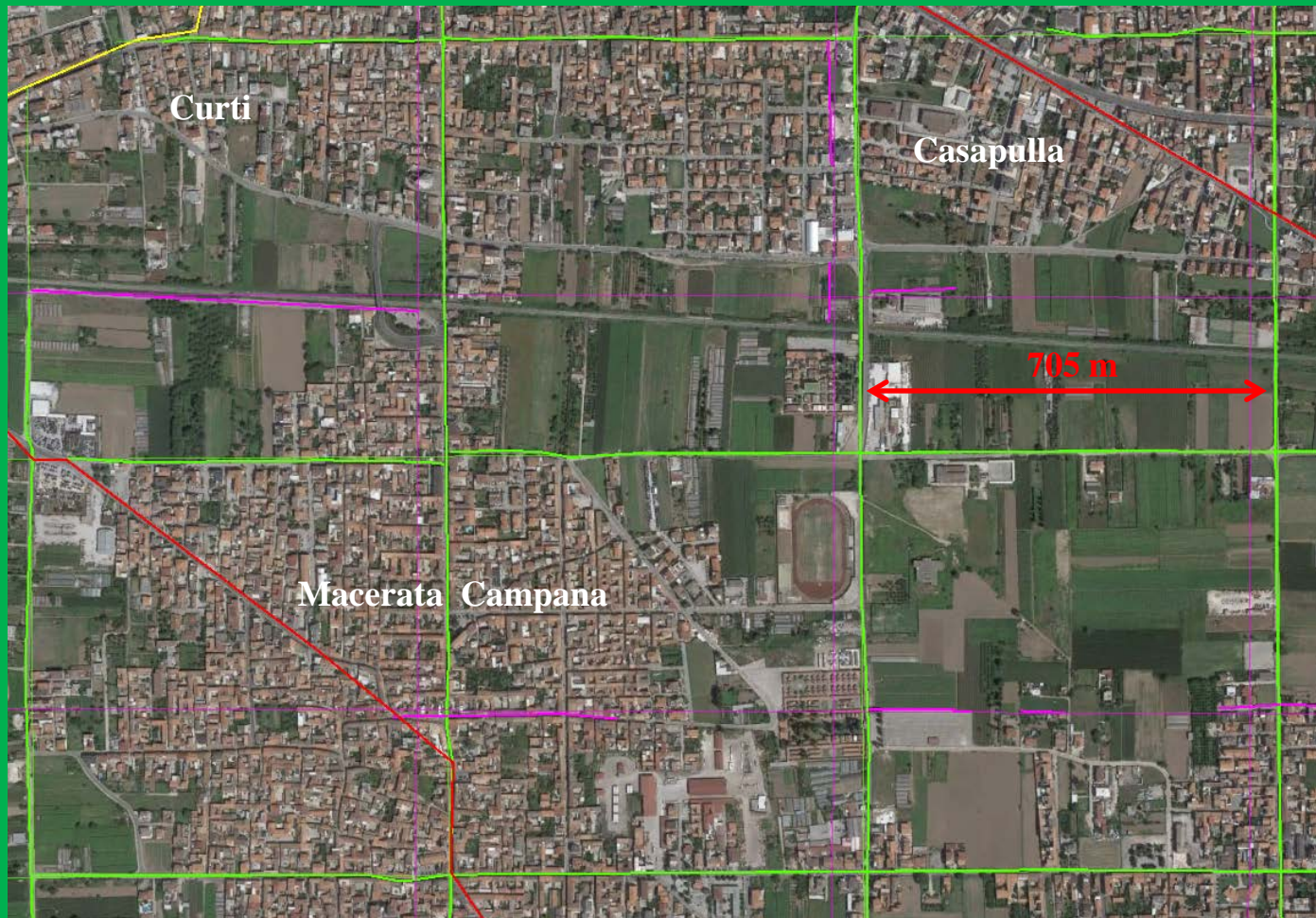
General view of *Campania* aqueducts in the framework of the **centuriations** of the area:  
**A=Capua**; **B=Serino**; **r=branches of Serino**; **C=Beneventum**; **D=Bolla**; **E=Abella**; **F=Gaurus**





The centuriations (*centuriationes*), in their typical shape, were regular subdivisions of a territory by a grid of unpaved country roads (*limites*), which defined a series of square areas, called *centuriae*, in general assigned to war veterans.

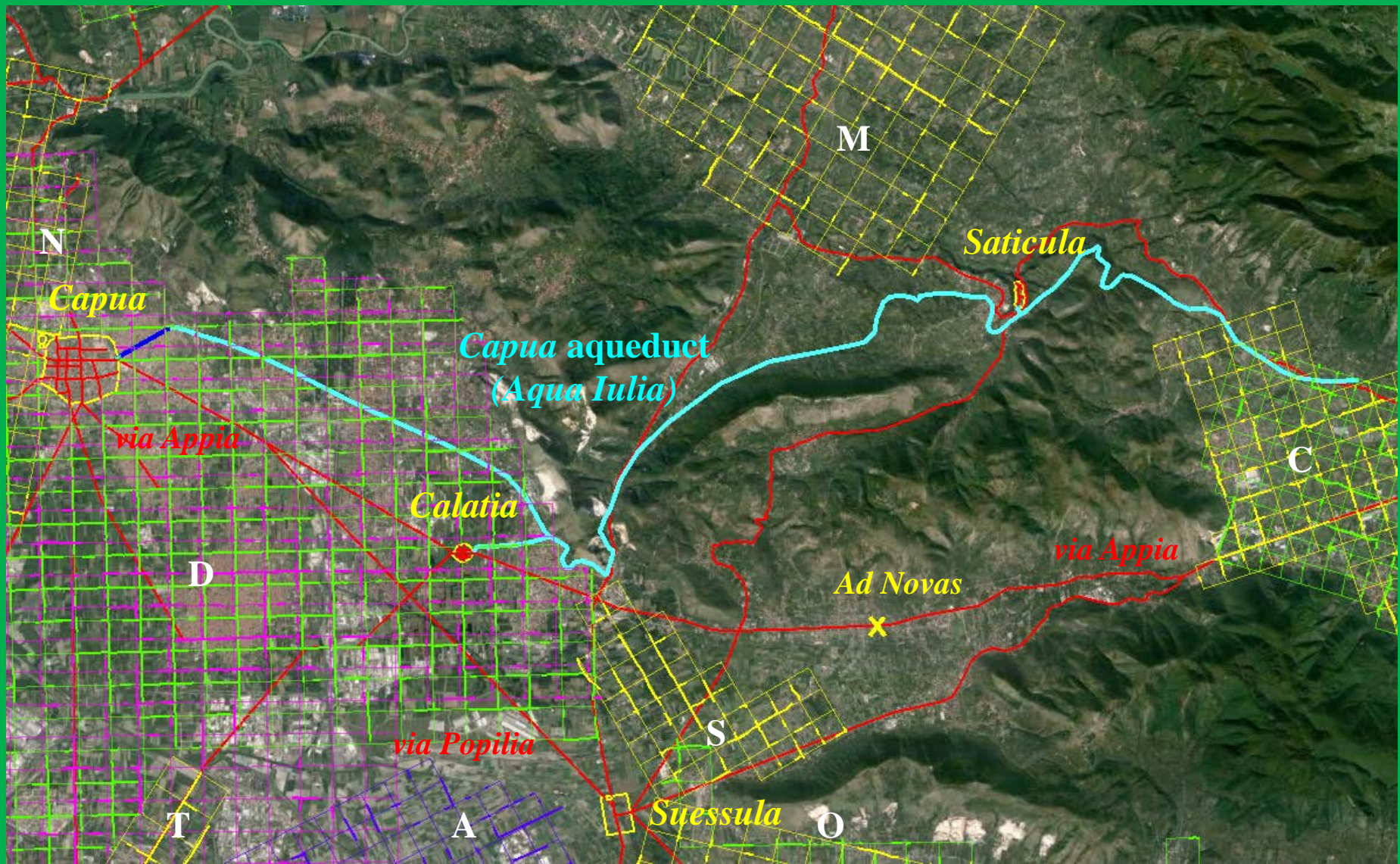
The presence of modern road layouts or borders, placed at regular intervals and with uniform orientations, allows the reconstruction of the original grid of a centuriation.



The persistences of the routes of the *limites* is not archaeology in the meaning of dead ancient things: it is the past that still lives in the present.



## Overall view of the route of *Aqua Iulia* aqueduct



Parts of the centuriations: A =Acerrae-Atella I; C=Caudium I and Caudium II; D=Ager Campanus I and Ager Campanus II; M=middle Volturno river; N=Capua-Casilinum; O =Nola I and Nola III; T=Atella II. S=centuriation of Suessula.



The aqueduct of *Capua* originated from some springs in the Caudina valley (near present Airola) and first served, with a short branch, the ancient Oscan *Saticula*, today's charming Sant'Agata dei Goti.



**Sant'Agata dei Goti**  
(three panoramic views)



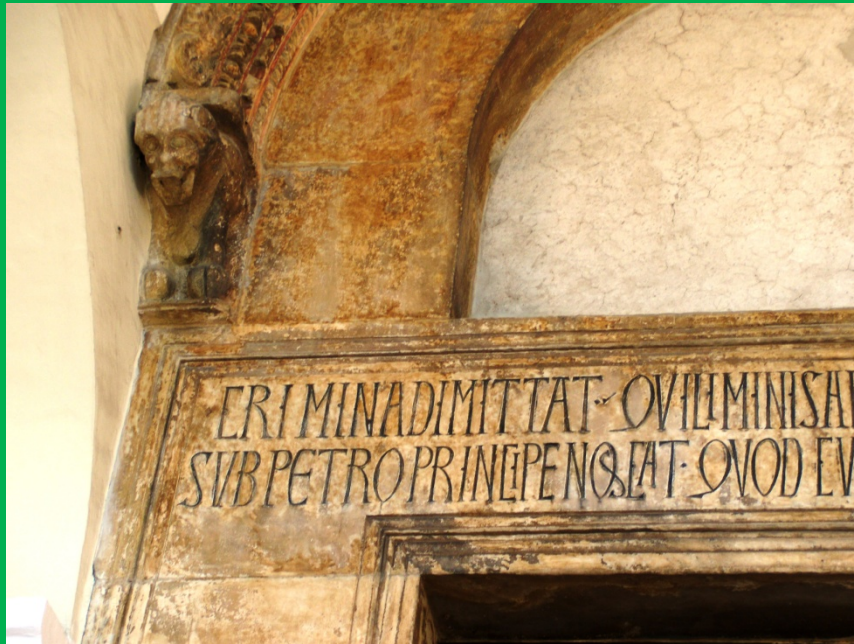




**Crater of Assteas, Archaeological  
Museum of Naples**



**The main  
street**



**Portal of S. Menna church (XII century)**

**A lateral view of  
the ancient dome  
(X century)**

**Other images of  
Sant'Agata dei Goti**

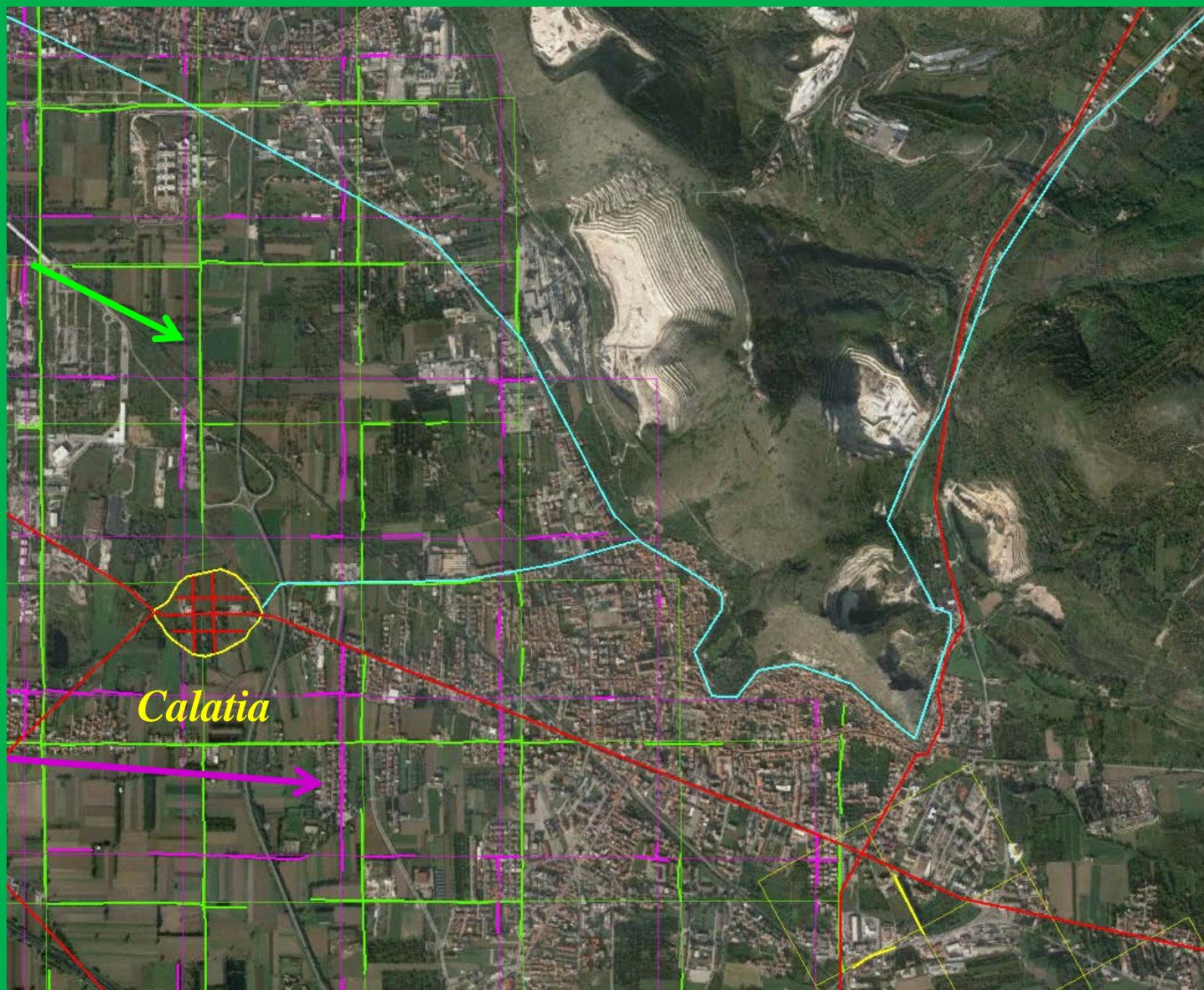




After a path along today's Maddaloni valley and around a hill, it is likely that a branch of the aqueduct, approximately 1.75 kilometers long, served *Calatia*, an ancient Oscan-Etruscan town.

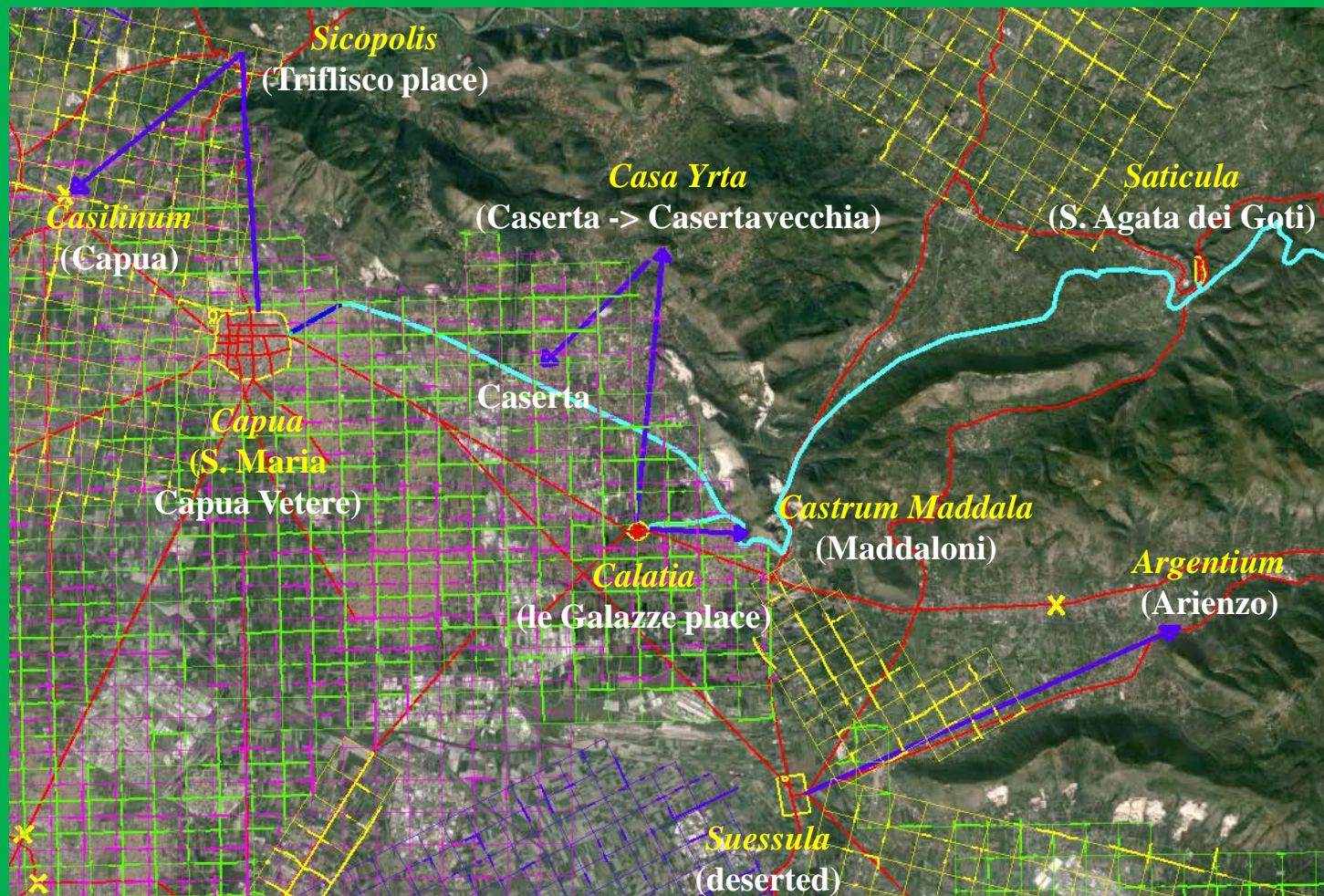
Persistences  
of the Sullan  
centuriation  
*Ager Campanus II*  
(I century BC)

Persistences  
of the Gracchian  
centuriation  
*Ager Campanus I*  
(II century BC)





## Transfers in the centuries of the urban and episcopal seats of *Calatia* and *Capua*



Owing to the Saracen assaults of the ninth century, part of the inhabitants of *Calatia* took refuge in *castrum Maddala* while the others sheltered themselves, together with their bishop, in a *yrtus* (steep) place that was easier for defence, i.e. in *Casa yrta* (present Casertavecchia, in the municipality of Caserta). In modern times, they went back to the plain in the current Caserta (formerly Torre di Caserta, a village).

The Capuans and their bishop as a result of similar Saracen assaults, which destroyed the town, took shelter into *Sicopolis* (a fortified town built from scratch near Triflisco place). Afterwards, they decided it was more useful to fortify *Casilinum*, the ancient port of *Capua* placed on a bend of Volturno river, which assumed the name of Capua.

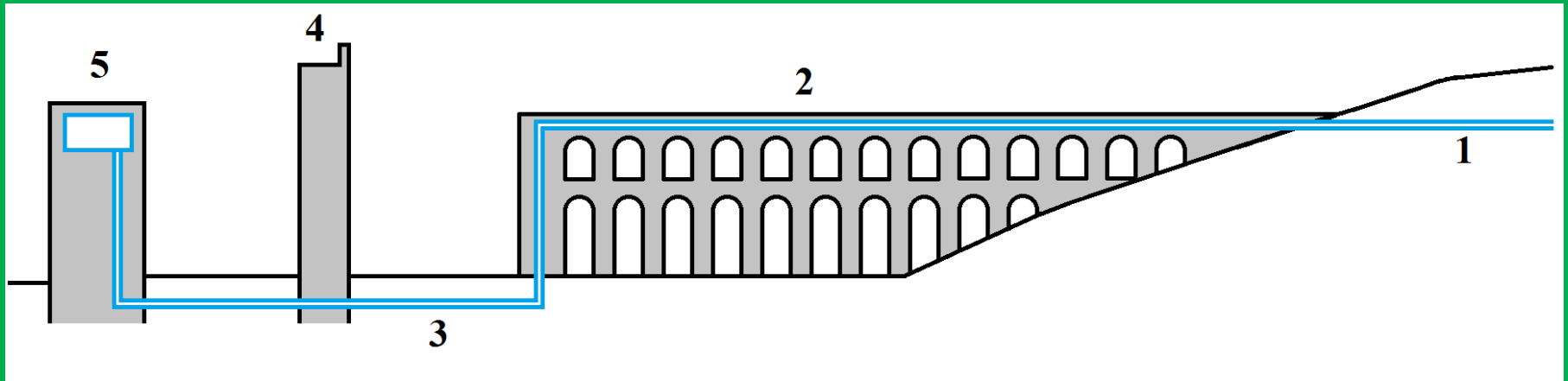




*Casa yrta* (later Caserta and now Casertavecchia), where the inhabitants of *Calatia* took shelter in the IX century, the magnificent complex of the cathedral and its bell tower (XI century)



The presence of an arcade in the last part of an aqueduct was motivated by the necessity of giving a sufficient pressure to the water.



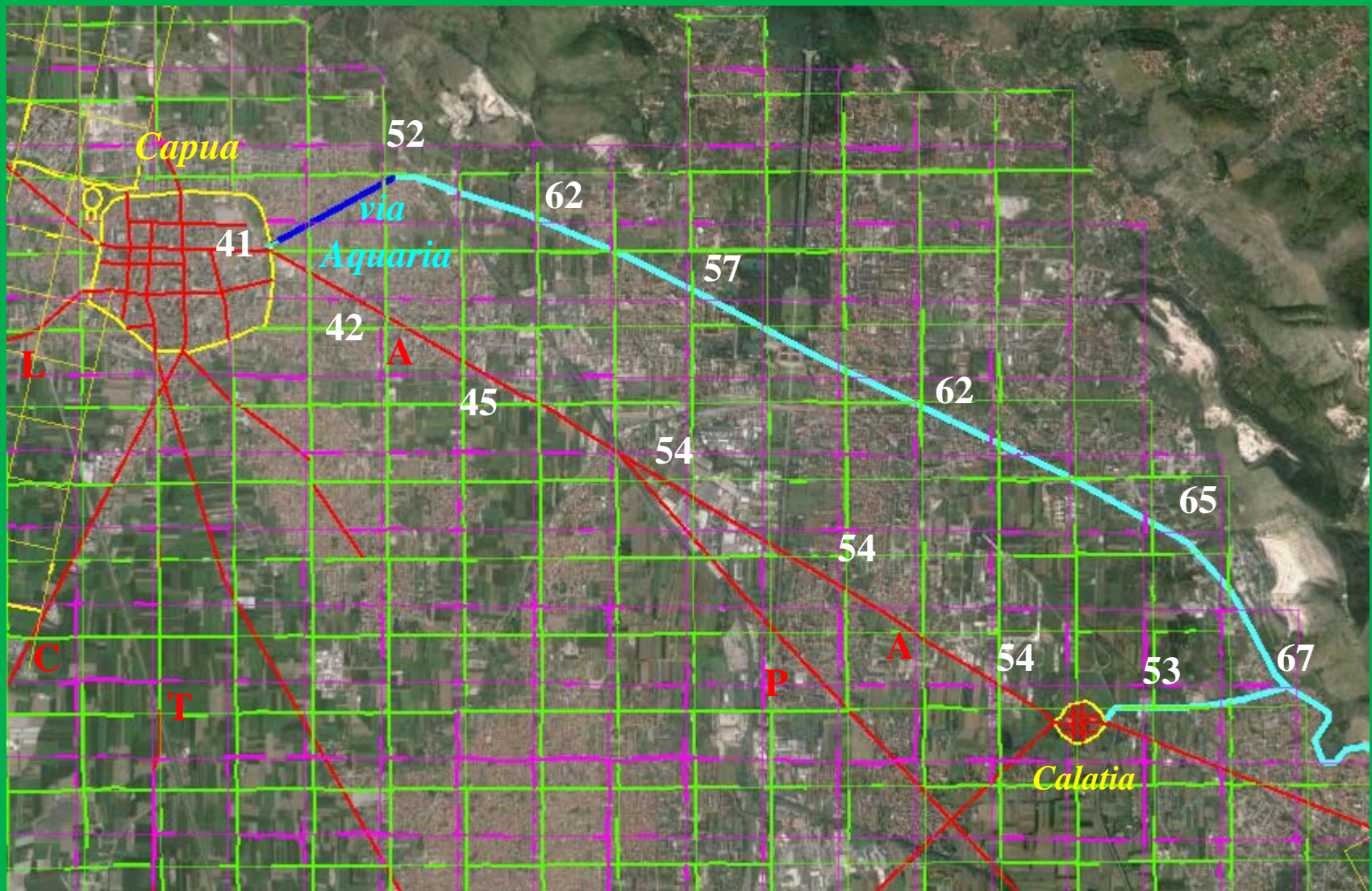
Penetration of an aqueduct in a *civitas*. 1: underground part of the aqueduct; 2: part of the aqueduct on arches; 3: inverted siphon; 4: walls of the *civitas*; 5: *castellum aquae*.

This explains also why the aqueduct should reach *Capua* coming from north-east and not by a more direct route from east.



View of the western part of the hypothetical route of *Capua* aqueduct, with the notation of some elevations above sea level.

We have precise testimony that along the *via Aquaria* (today's *viale Trieste*), near *Capua*, there was a long arcade.

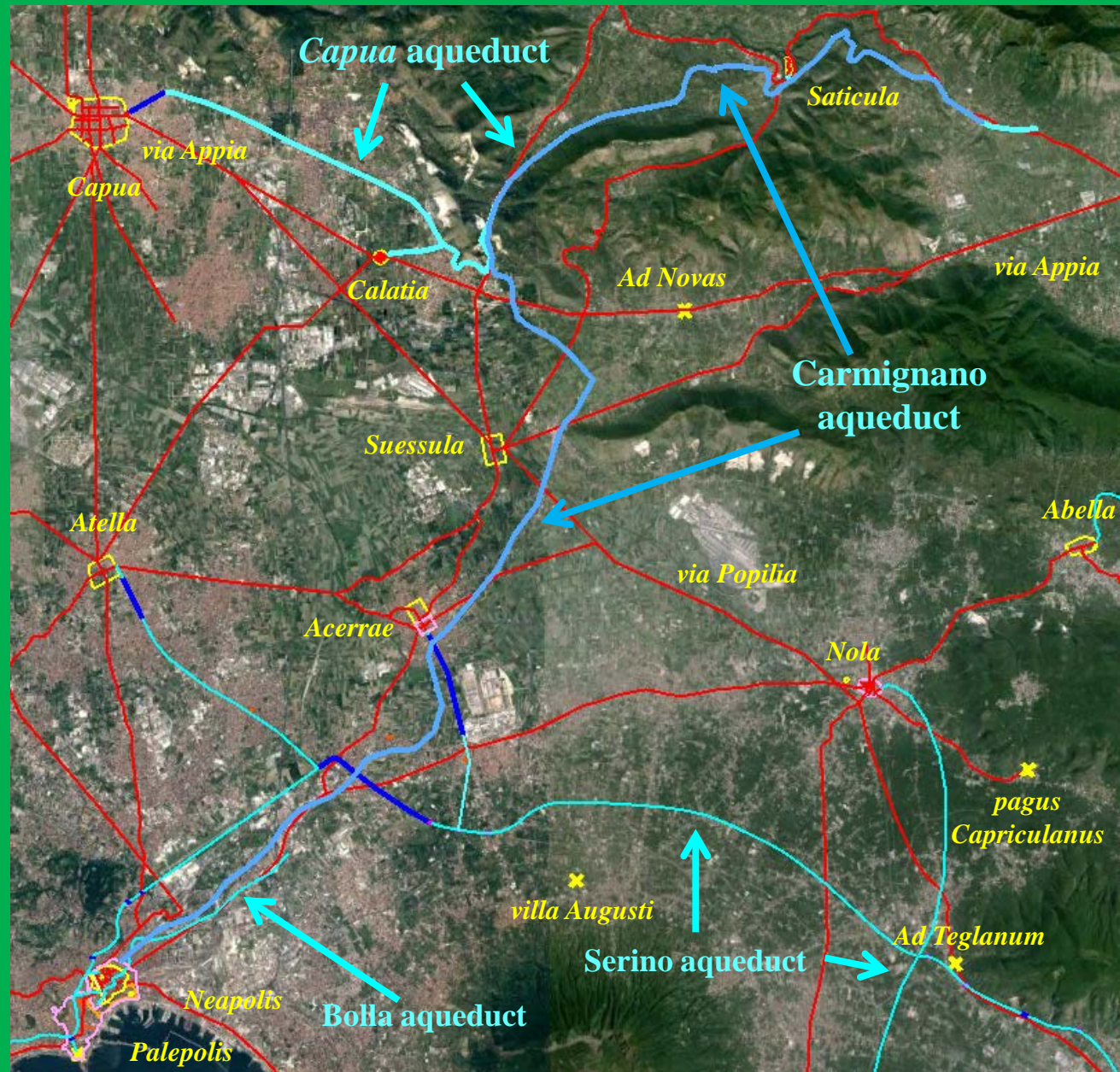


A: *via Appia*; P: *via Popilia*; T: *via Capua-Atella*; C: *via Capua Cumae*; L: *via Capua-Liternum*.



In the seventeenth century, a Neapolitan engineer, Cesare Carmignano, proposed and built (1627-1629) an aqueduct to serve some watermills and fountains of Naples, by using the same supply sources of Capua aqueduct and restoring a good part of the ancient aqueduct.

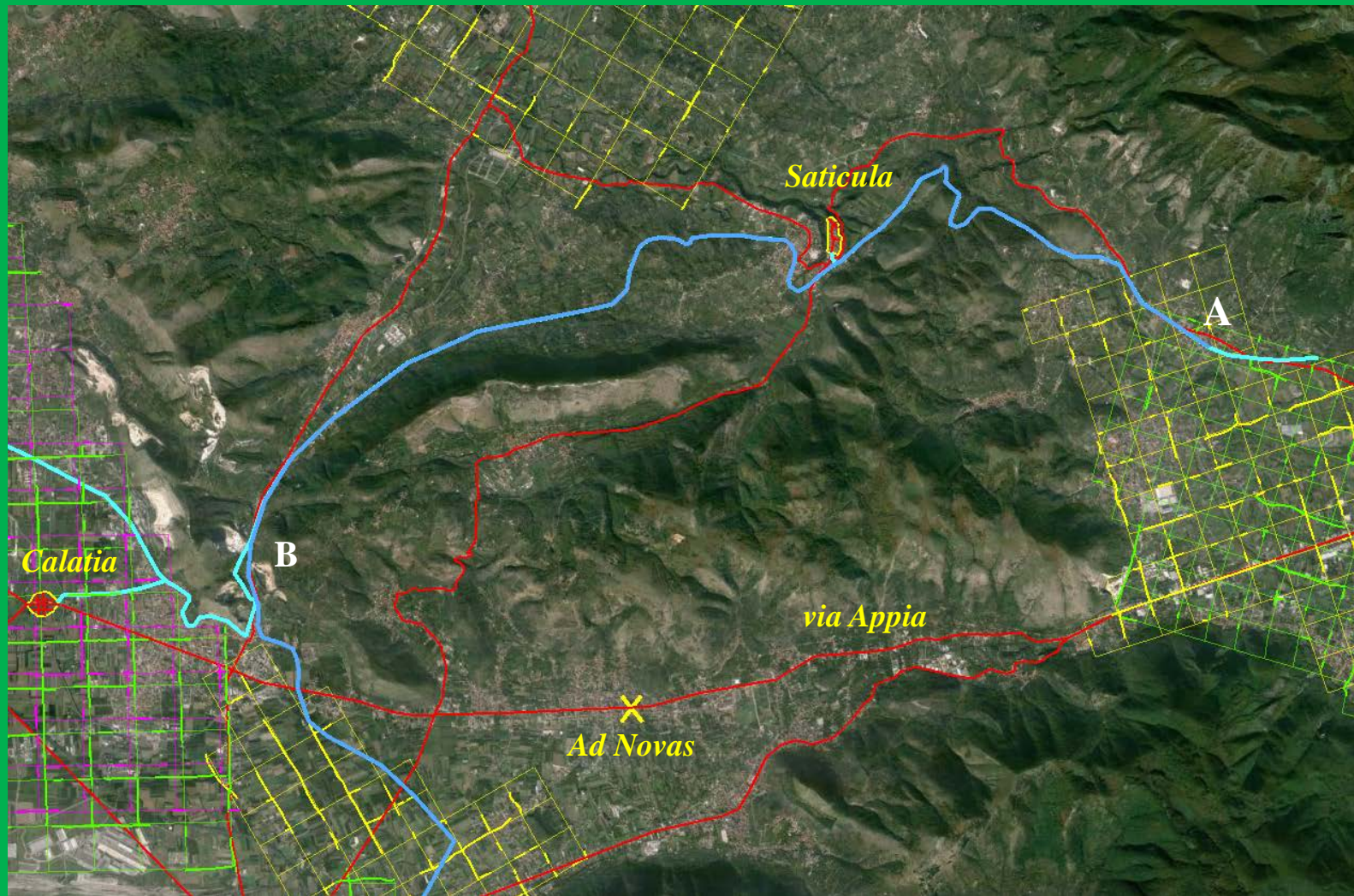
In the figure, it is drawn the course of both Capua and Carmignano aqueducts. They are identical, or nearly so, for “circa 8 miglia” (about 8 miles). Moreover, the map shows also the *civitates* served by the oldest aqueduct, the road network allegedly existing in Roman times, and the course of the Augustan aqueduct of the Serino.



Overall view of the route of the Carmignano aqueduct.



## The initial parts of Carmignano and Aqua Iulia aqueducts



In 1630, it is reported that for about 8 miles the routes of the two aqueducts coincided: “*Carmignano has to pay about 8 miles of ancient ducts all covered with vault that were only cleaned and connected with those made from scratch for which Carmignano says he spent considerable sums. ...*”

This distance is equal to the section A-B, which goes from almost the northernmost segment of the course, after Sant’Agata dei Goti (*Saticula*) to the point at north-east of Maddaloni, where the two tracks diverge.



In 1751, the king of Naples, Charles of Bourbon, who later became King Charles III of Spain, decided to build an imposing palace in the territory of Caserta, heir of the ancient *Calatia*.

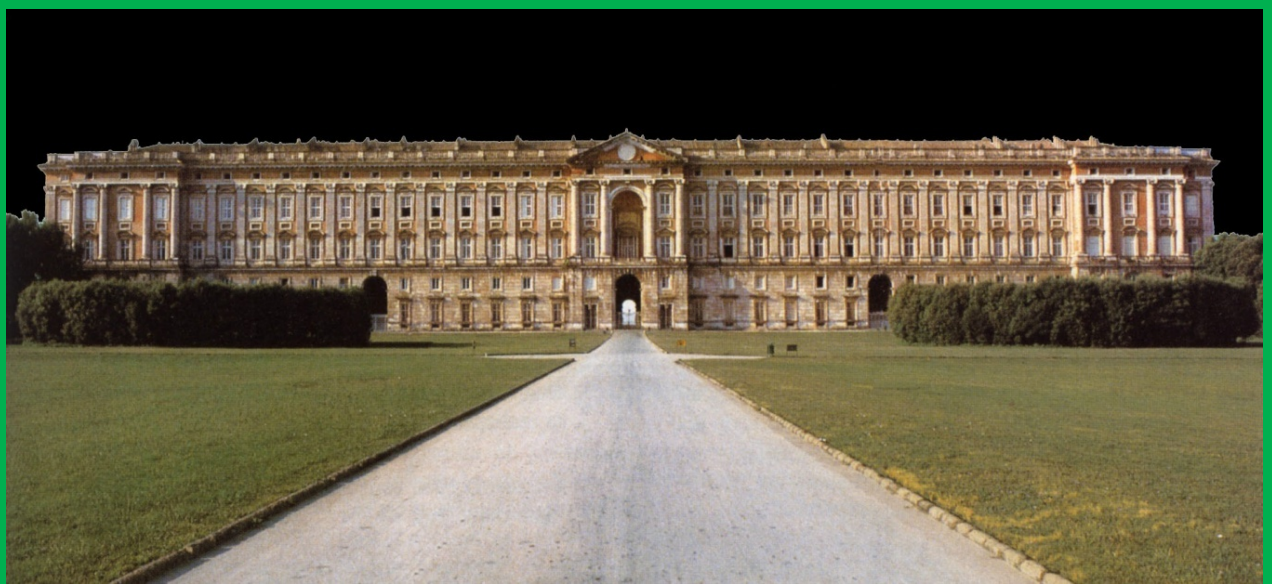
The project was entrusted to Vanvitelli. However, a rich source of water was necessary for the palace and for the fountains that the King considered essential.

Vanvitelli used the same springs of *Aqua Iulia*, but the water was forced to run at greater heights to reach the highest point of the main waterfall in the Palace Park, 210 m above sea level.



The main waterfall of the park





**The wonderful royal  
palace of Caserta  
and its park**





**The magnificent royal  
palace of Caserta**



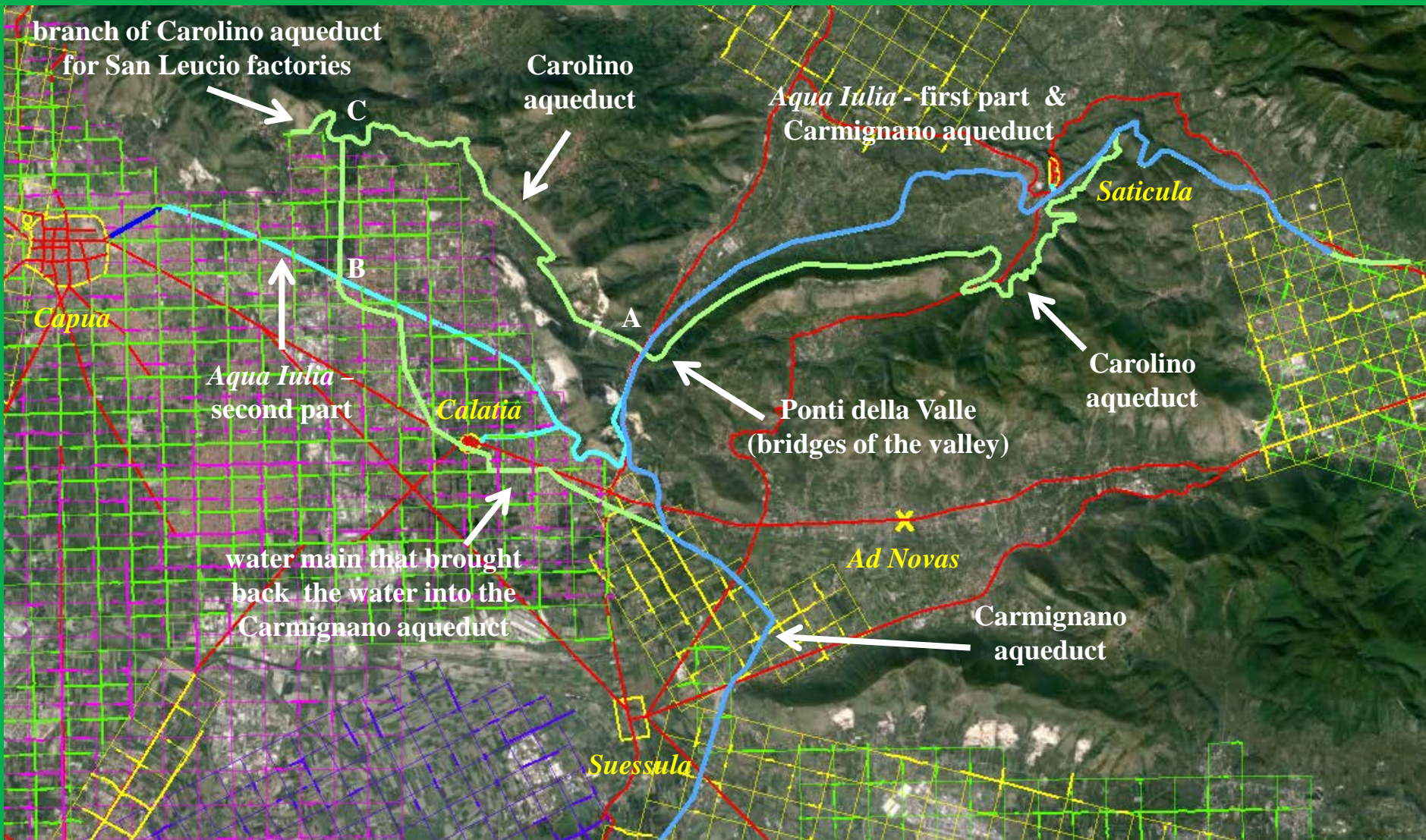
**A royal bidet!**

**In 1861, after the conquest of the Kingdom of Naples, the Savoy officials cataloged it as an "object for unknown use in guitar shape."**





**The route of the Carolino aqueduct in relation  
to the courses of *Aqua Iulia* and Carmignano aqueducts**



**A: tunnel of Graziano mountain; B: royal palace of Caserta; C: tower of the main waterfall in the royal park.**



## I Ponti della Valle (the bridges of the valley)



**The imposing Ponti della Valle (length 529 meters, height 56 meters) were built in the years 1751-1762 and are therefore a structure of the modern era. But, for the type of construction and its conception, they can be considered as a superb example of Roman aqueduct arcade.**



## Conclusion

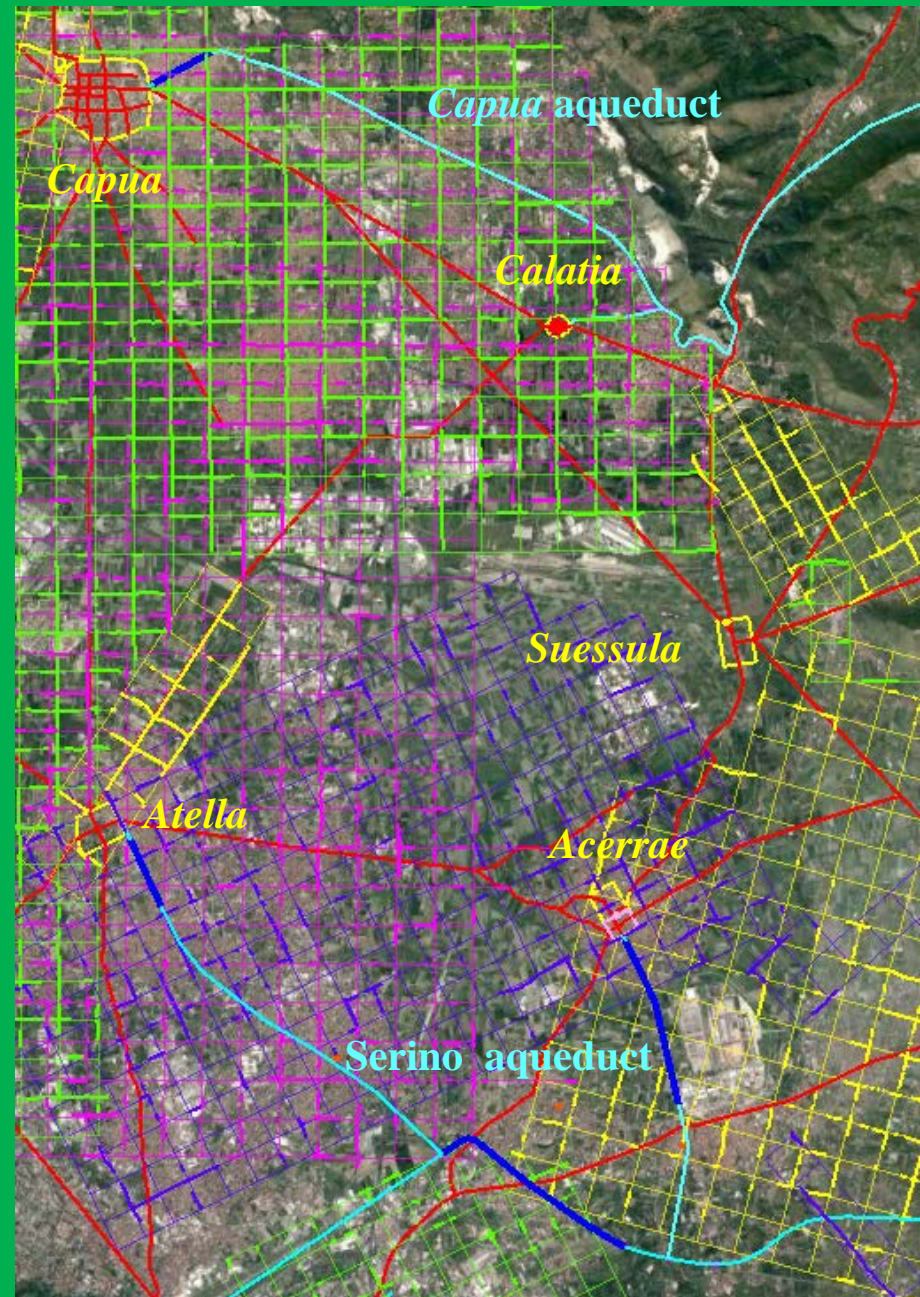
Archaeology may be defined with the restriction to the study of the ancient remains that are visible on the surface or may be dug out of the ground.

It is possible a distinct type of studies, which is quite different from this rather bounded conception, although including it as essential and indispensable element.

It is the pursuit of what existed in the past, the observations of its transformations through the centuries and its persistence in modern times.

Where this type of studies is possible, we may find and enhance countless connections, continued in time, between past and present reality.

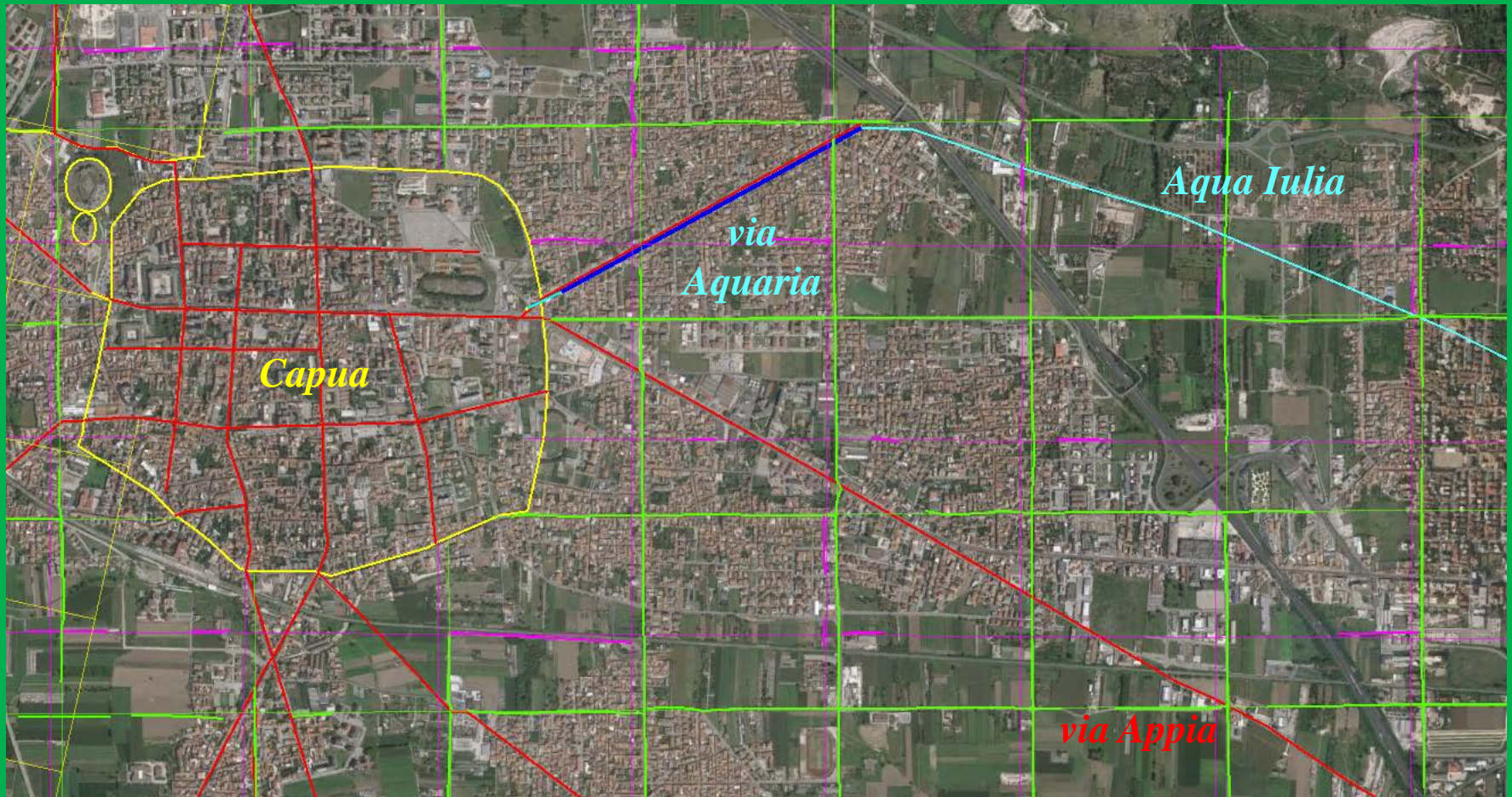
Such links are often unknown or underestimated even by the local inhabitants, but are essential to understand the roots of the present and the origin of many contemporary peculiarities that are seemingly meaningless and random.





The study of *Aqua Iulia* aqueduct and of its transformations over the millennia is an extraordinary example of this broader concept, which goes beyond the strict boundaries of archaeology.

The complex and varied history of the places crossed or served by the aqueduct is interwoven with human affairs together with the social and economic conditions of the people that have lived and are still living there.



**Thanks for your attention!**