

# THE ATLAS PROJECT OF ROMAN AQUEDUCTS



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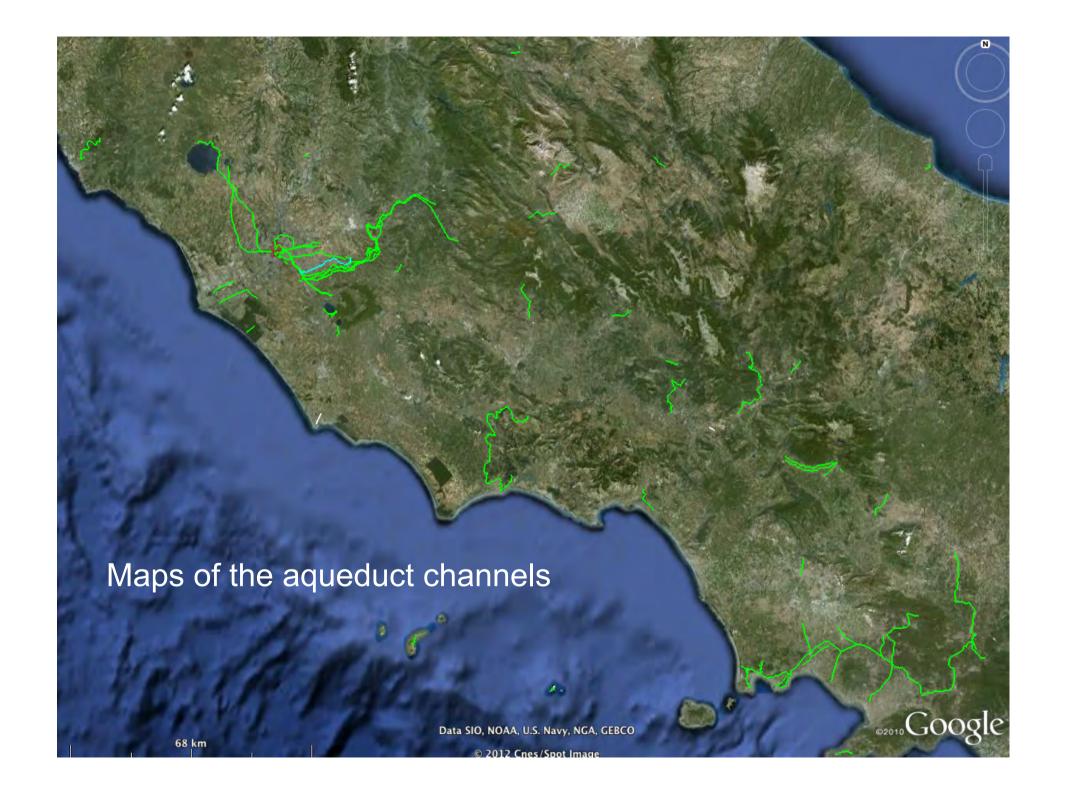
Driek van Opstal - Kobern

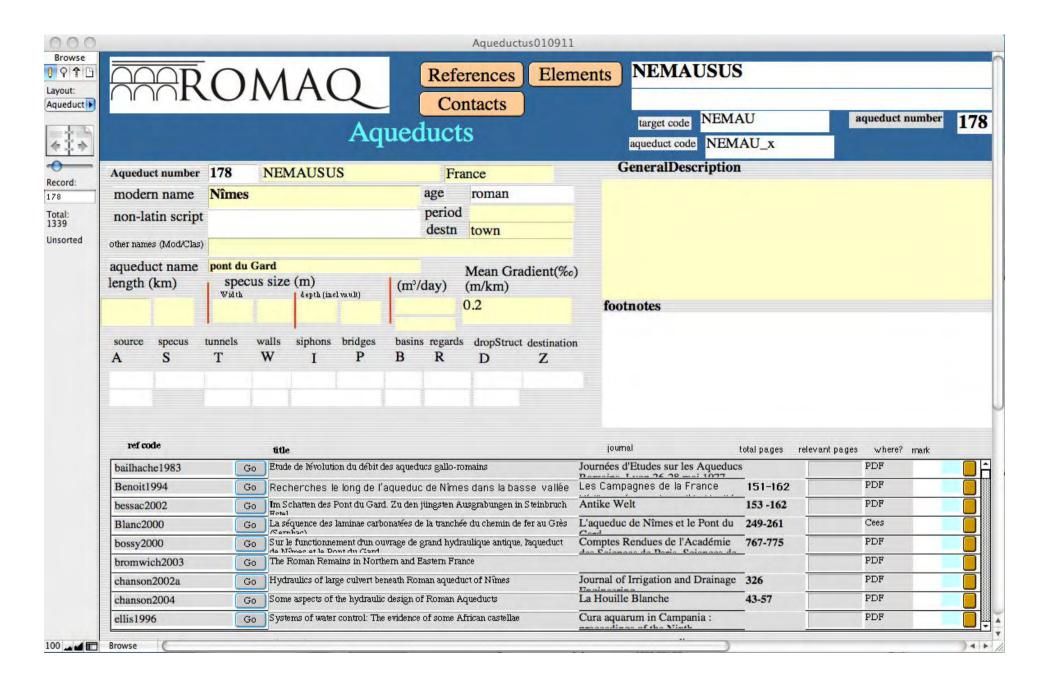
Wilke Schram - Universiteit Utrecht

Gül Sürmelihindi – Universität Mainz

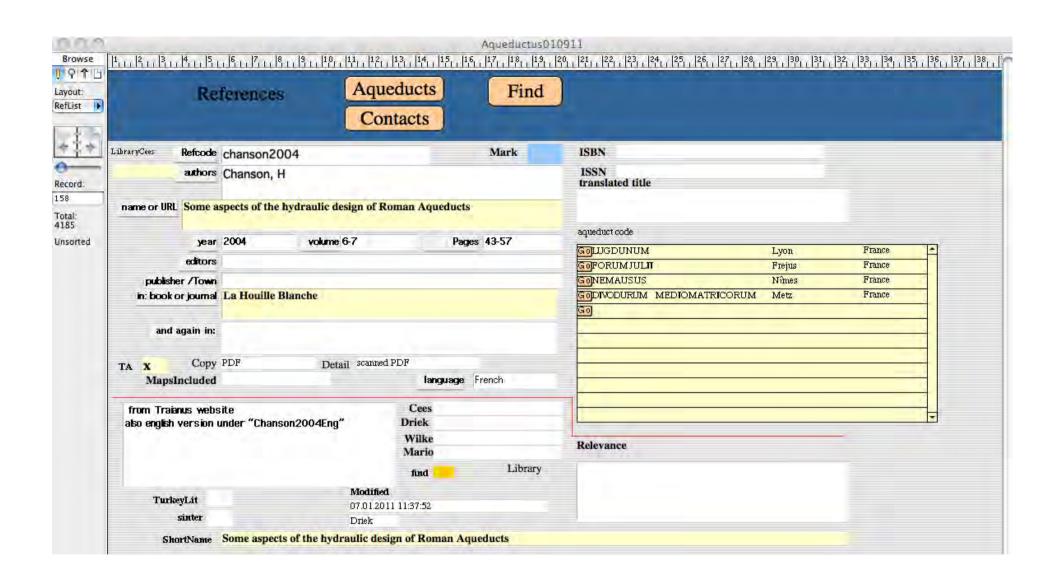
• Questions:

- Where to find specific aqueduct structures
- What do we know about them?
- How good are the data
- Which structures are in danger?

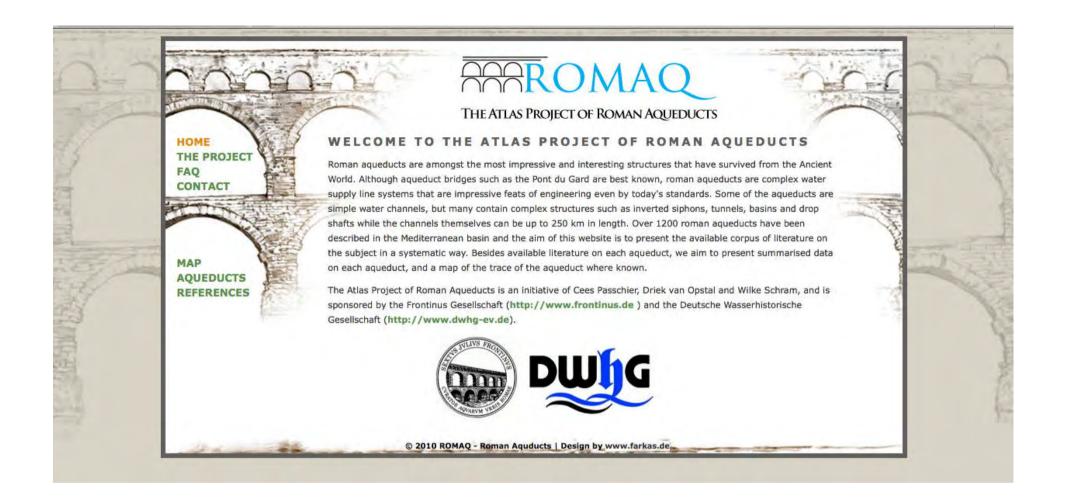




Aqueduct page



Reference page



ROMAQ intro sponsors



## THE ATLAS PROJECT OF ROMAN AQUEDUCTS

HOME THE PROJECT FAO

MAP AQUEDUCTS REFERENCES

THE ROMAQ TEAM CONTACT LINKS

## THE ATLAS PROJECT OF ROMAN AQUEDUCTS (ROMAQ)

The project aims to localize and collect all publications on ancient aqueducts within the borders of the Roman Empire, focusing on roman aqueducts built in the period 400 BC to 400 AD. By necessity, we concentrate our attention on the large aqueducts that served cities and towns, although we also include interesting small aqueducts that served villas and sanctuaries. We have started this initiative because of the following reasons:

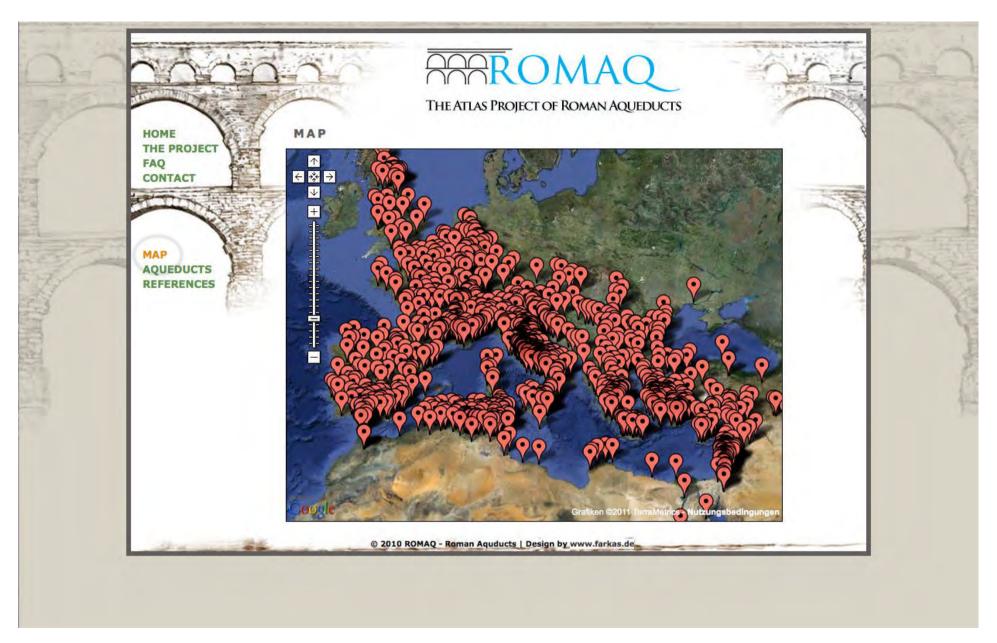
- 1. Ancient aqueducts are a valuable element of the joint cultural heritage of all people in the Mediterranean basin
- 2. They are a unique source of scientific data. Aqueducts give information on knowledge levels in hydrology and civil engineering in the ancient world, and on the social life and history of cities; aqueducts can also give unique information on earthquake activity in the Mediterranean basin which can help us to understand the dangers posed by specific geological faults in the Earths crust. Finally, travertine deposits in aqueducts carry information on land use, deforestation, and the climate in roman times.
- 3. Aqueducts are vulnerable and much more likely to suffer damage and destruction than the remains of towns or sanctuaries which can be fenced in. Aqueducts are harder to protect because they are narrow, ribbon-like structures in the topography, commonly away from centers of habitation and (apart from the bridges) not preserved as attractive and photogenic ruins.

One important reason that aqueducts are commonly damaged or destroyed is that there is no central database of the location of their remains. ROMAQ aims to improve this situation in the following manner:

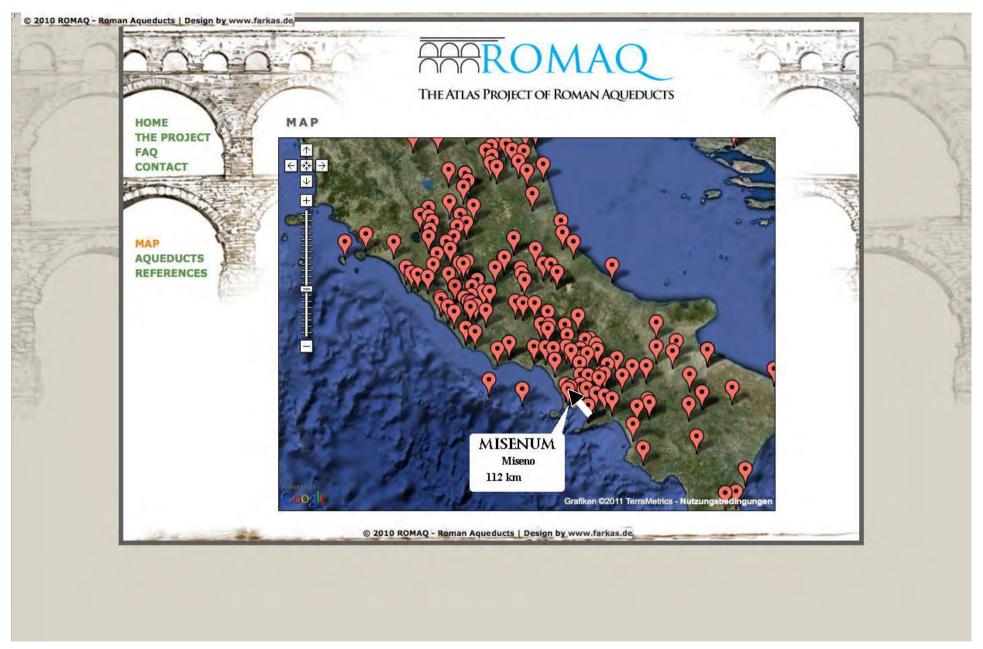
- By setting up this database of the presently known roman aqueducts and the corpus of published literature on roman aqueducts. We presently have localized over 4000 publications in 23 languages describing over 1300 aqueducts. We aim collect pdf's of all publications in our Thomas Ashby Digital Repository (TADIR). We presently have over 2000 pdfs stored.
- 2. By collecting all published topographic data on aqueducts and storing this information in a GIS platform
- By publication of a printed atlas of the known roman aqueducts, including photographs, maps and detailed information

### REQUEST FOR HELP

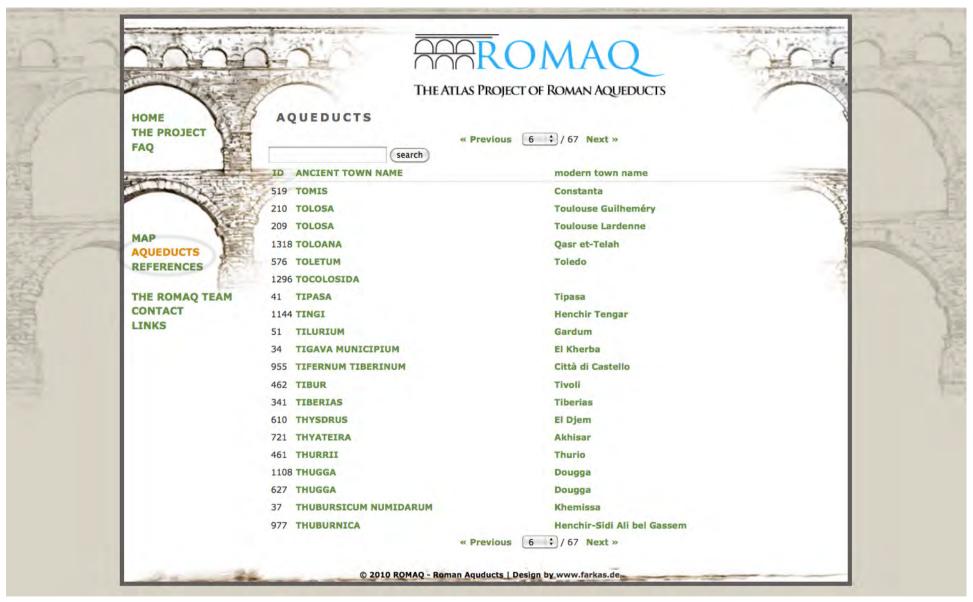
Although our team builds and administers ROMAQ, we heavily rely on the help of ROMAQ users to improve and expand the database. Please send us references to publications that have not been included yet, or even copies or pdf's, and point out any errors in the database.



general map of all 1360 aqueducts presently in the database



Zooming in, it is possible to see the ancient name and modern name of each aqueduct site, and link to the relevant page

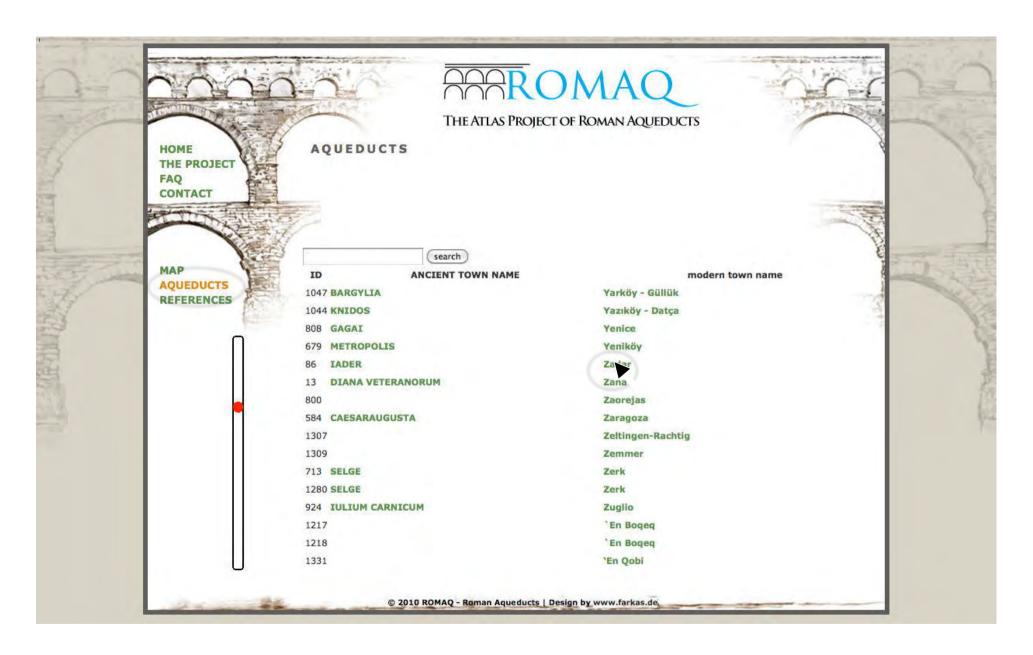


Under "aqueducts", the full list of (presently 1360) roman aqueducts is visible, with ancient and modern names

The "search" function helps to find aqueducts

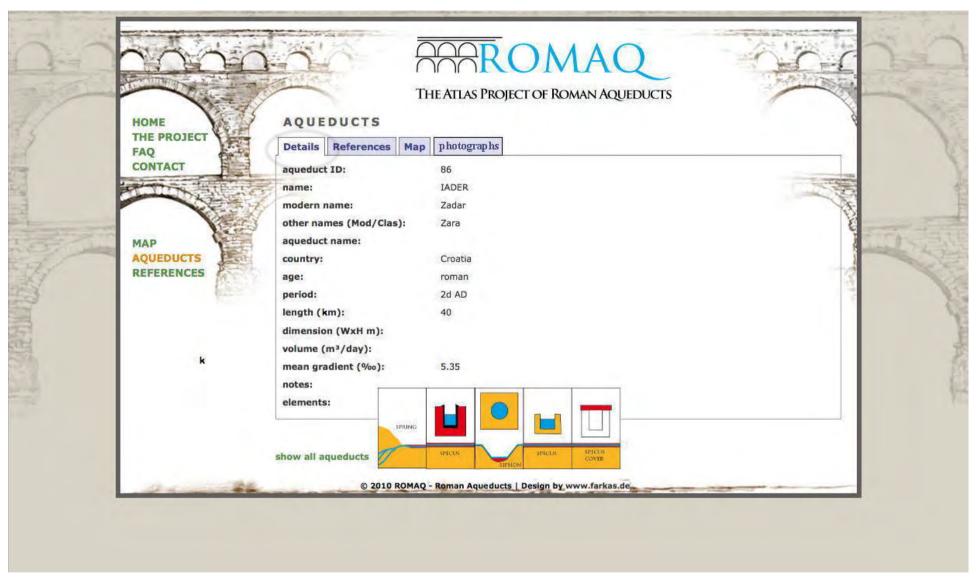


"References" shows the full list of ROMAQ references on roman aqueducts; presently, there are more than 4000 references in the database in 24 languages. The "search" option allows search in the reference database



Under "aqueducts"

Clicking on one of the aqueducts gives the page with details of that aqueduct

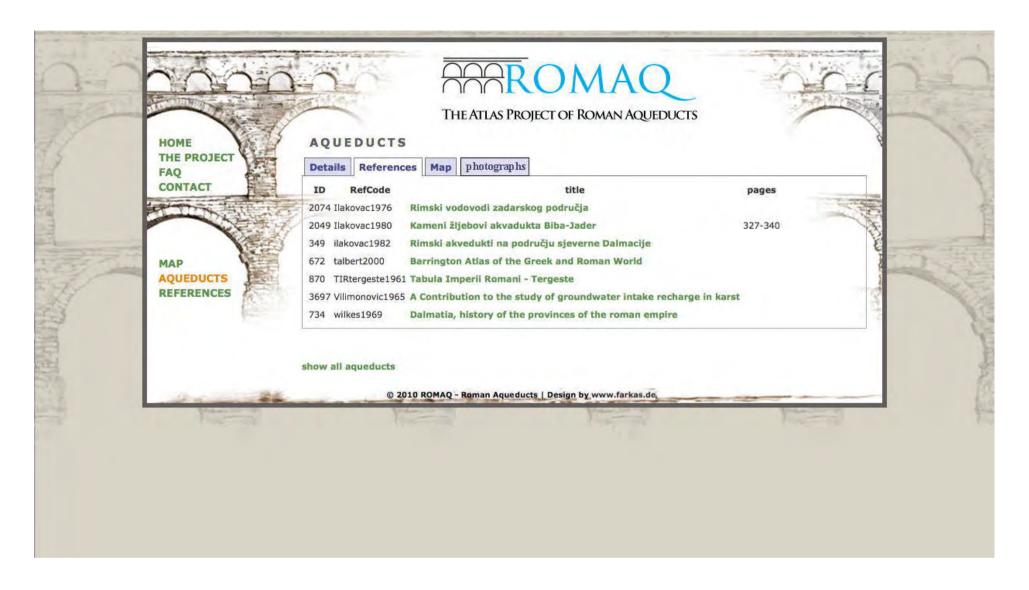


For each aqueduct (here Zadar), the aqueduct main page gives its details, as obtained from the literature. Small pictograms with the main elements of the aqueduct will be added

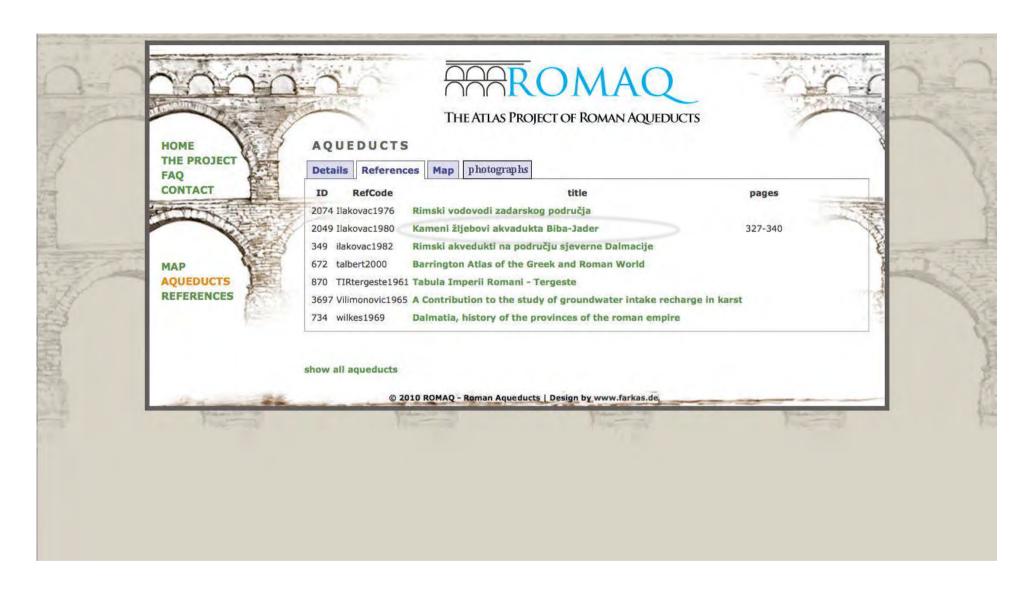
Most of this content has not yet been implemented



Clicking on "references" now gives the list of references for this particular aqueduct



For each aqueduct, "references" shows the literature which discusses this aqueduct



...and clicking on a reference gives its details



For each reference, the main page shows its details.

Original language spelling of the title and author names is used where possible, also in Greek, Hebrew and Cyrillic

"copy in repository" indicates whether we have a pdf in our digital library

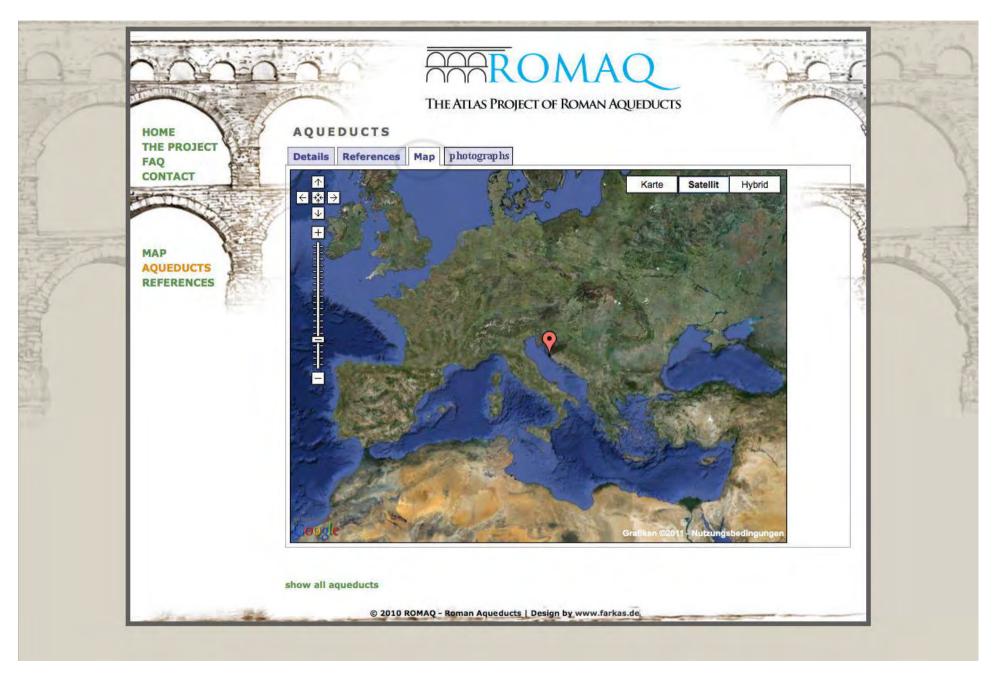


in this publication

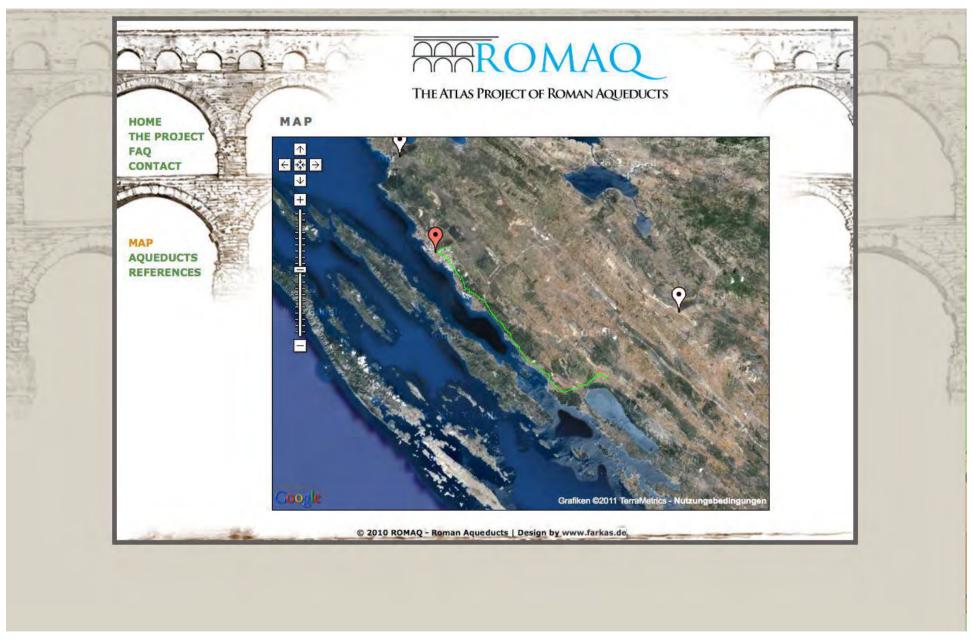
HOME THE PROJECT FAQ CONTACT	REFERENCES  Details Aqueducts  ID Town	THE ATLAS PROJECT OF ROMAN AQUEDUCTS	-
MAP AQUEDUCTS REFERENCES	72 Nin 74 Podgrade 75 Plavno Polje 76 Kolan 80 Škopalj 82 Skradin 86 Zadar		を記憶の
Na-	show all references	ROMAQ - Roman Aqueducts   Design by www.farkas.de	要放料

Under "aqueducts", all aqueducts are shown which are being treated in this particular publication

Clicking on them, brings the user to that aqueduct again



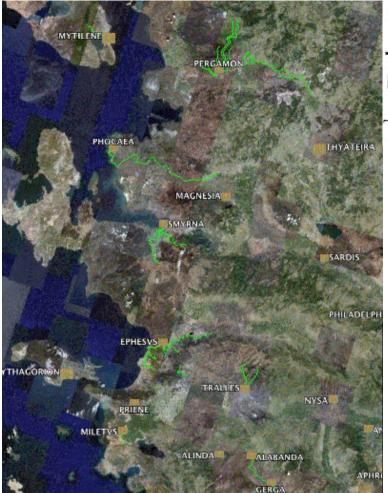
Under "map", the position of the aqueduct in the Roman Empire is shown



Enlarging this, the position of the target (red marking) and the trace of the aqueduct (if known) are shown



The photograph page gives photographs of elements of the aqueduct, if available



# ROMAQ

## The atlas project of roman aqueducts





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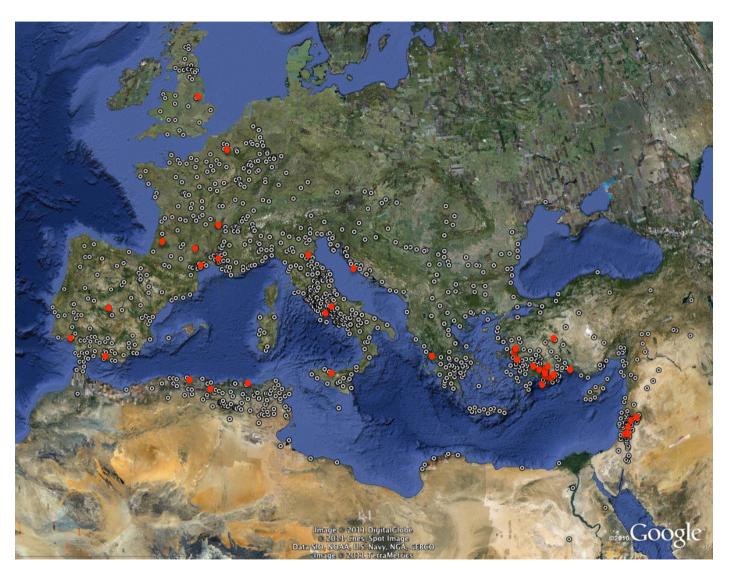
Conduit below Mathasset Damistle
Traces of the conduct survive on the left basis of the Reynal 3D as above the river.

we make short curves soons, and we make there or the visit was diversed to result the 28. Several sources a downstream were decreased, a.c. pillars of the Booke bridge.

There are fitted conductor to the root most a salar slope, with major safer deposits of up to 77 cas thick with a salar slope.



Using ROMAQ we can research on locations of certain elements, for example



Inverted siphons....

Using ROMAQ we can research on locations of certain elements, for example

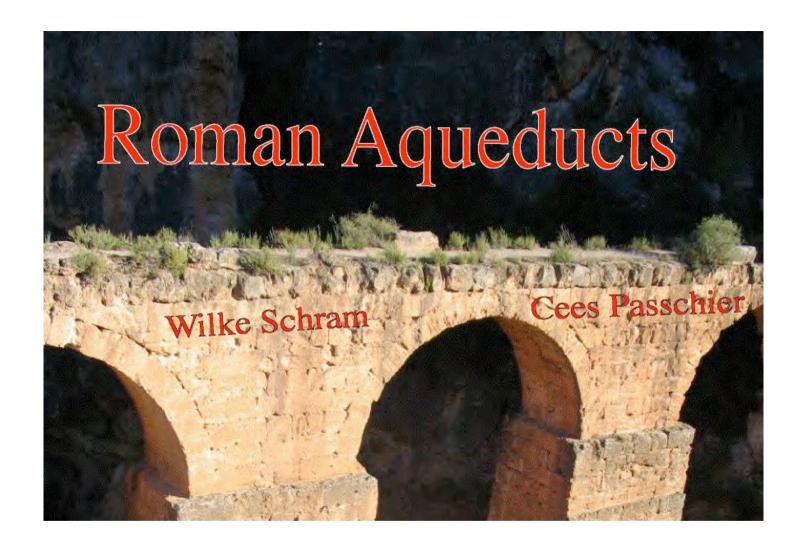


Drop shafts

Using ROMAQ we can research on locations of certain elements, for example



Water lifting devices



The Roman aqueducts site

## Köln (Cologne) - COLONIA CLAUDIA ARA AGRIPPINENSIUM

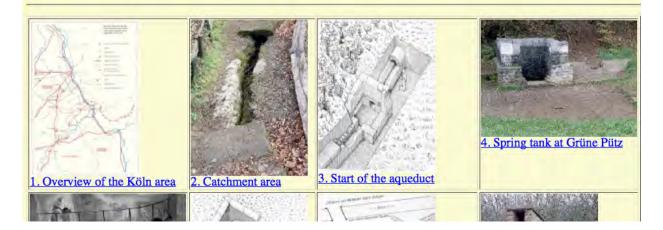
Item	Info		
Length	95,4 km / in total 130 km		
Cross-section	0,5 x 0,9 m		
Volume	20.000 m3/day		
Fall	0,15 %		
Period	1 / 2 c AD		
Features	cleaning basins putei (shafts) double channel on top op each other over a water shed		

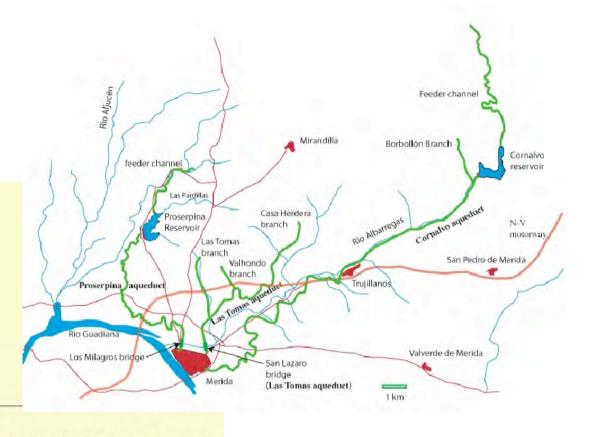
Recommended literature: Atlas der römische Wasserleitung nach Köln (1986). K. Grewe

Recommended website:

Apart from the Atlas (see above) dr. K. Grewe pubished an very informative and detailed itinerary 'Der Römerkanal-Wanderweg, ein archäologischer Wanderführer' from the start of the aqueduct near Nettersheim to Köln (Cologne) How to visit:

HOME More literature on more aqueducts Last modified: March 25, 2005 - Wilke D. Schram (wilke@cs.uu.nl)





The Aqueduct Atlas Project

## New in July 2012:

Annotated web portal on aqueducts
Aqueduct statistics

AOUAGEN:

FAQ: Questions and Answers Introduction by subject Historical introduction

Technical introduction

AQUASITE:

Information on 50 selected Roman aqueducts

AQUALIT:

Literature on 600 aqueducts

AQUASTAT:

**Ancient Aqueduct Statistics** 

AOUABIB:

Bibliographies on bibliographies

AQUAPUB:

Some selected papers

AQUAWEB:

The best external websites

AQUAMINT:

Aqueducts on Roman coins

Basins / castella - drawings
Siphons in Greek and Roman aqueducts
16 Intriguing Questions (Highschool level)
Pont du Gard in 3D photography
Under construction

## Mission

This website on Roman aqueducts aims to show what marvellous work has been done by engineers and architects of the Roman empire.

Water is a commodity that all humanity needs, and we dedicate this website to the builders of the Roman aqueducts and to all people who now live in the same lands, and who need the water just as much as our ancestors 2000 years ago.

We hope that this website will show what unites us in this beautiful part of the world around 'our sea', MARE NOSTRUM.

Wilke Schram
Driek van Opstal
Cees Passchier

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Last modified: July, 2012 webmaster

## AQUAEDUCTUS

Language	Translation	Alternative
Latin	<b>AQVÆDVCTVS</b>	
English	aqueduct	(aquaduct)
Welsh	dyfrffosydd	traphont dwr
Dutch	aquaduct	waterleiding
German	Wasserleitung	Aquädukt (aquaedukt)
French	aqueduc	
Catalan	aqüeducte	
Spanish	acueducto	
Portuguese	aqueduto	
Gallego	acueduto	
Basque	akueduktu	
Swedish	akvedukt	
Italian	acquedotto	(aquedotto)
Hungarian	vízvezeték	
Slovenian	ackvadukt	
Croatian	akvadukt	
Serbian	акведукт	akvadukt
Albanian	ujësjëlles	
Bulgarian	акведукт	akvedukt
Ukrainian	акведук	akveduk
Romanian	apeduct	conductã de apã
Greek	υδραγωγειο	
Turkish	su kemeri	kemerli su yolu
Hebrew	אמת מים	ammat myim

