

# PLEIADES: BEYOND THE BARRINGTON ATLAS

RICHARD TALBERT, PRINCIPAL INVESTIGATOR

SEAN GILLIES, CHIEF ENGINEER

PLEIADES PROJECT, ANCIENT WORLD MAPPING CENTER  
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, U.S.A.

<http://pleiades.stoa.org>

Using New Technologies to Explore Cultural Heritage

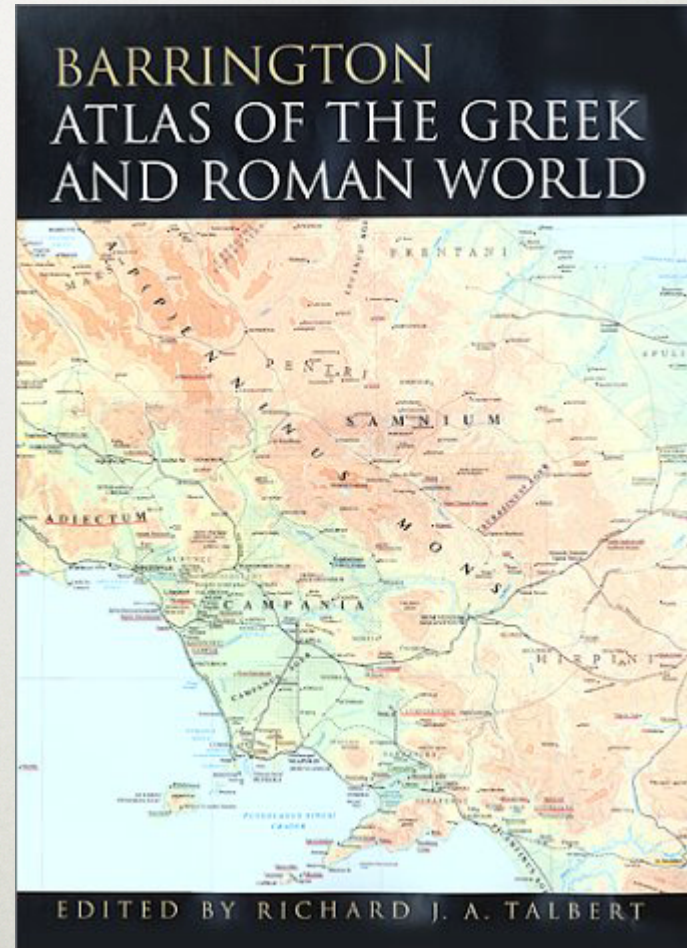
National Endowment for the Humanities ~ Consiglio Nazionale delle Ricerche

5 October 2007, Washington D.C., U.S.A.

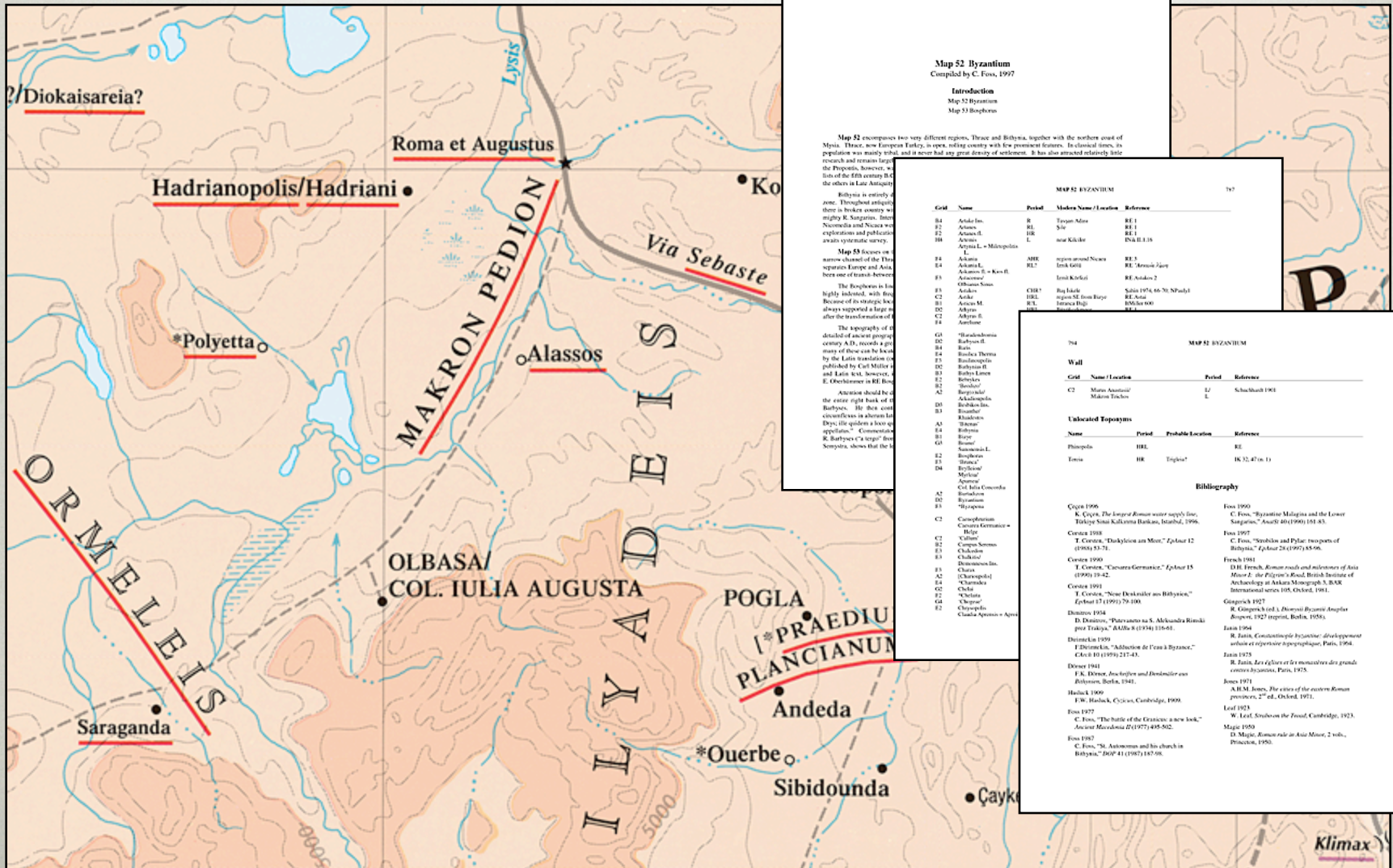
# PLEIADES PROJECT OVERVIEW

---

- Perpetual update, diversification and dissemination of the Classical Atlas Project dataset
- Open for public participation in early 2008



# BARRINGTON ATLAS: MAP 65 AND DIRECTORY



**Map 52 Byzantium**  
Compiled by C. Foss, 1997

**Introduction**  
Map 52 Byzantium  
Map 53 Byzantium

Map 52 encompasses two very different regions, Thrace and Bithynia, together with the northern coast of Mysia. Thrace, now European Turkey, is open, rolling country with few prominent features. In classical times, its population was mainly tribal, and it never had any great density of settlement. It has also attracted relatively little research and remains largely the province of the Pigeon, however, with lists of the fifth century B.C. the others in Late Antiquity.

Map 53 focuses on a narrow channel of the Thracian peninsula, Europe and Asia here one of narrow horizons. Bithynia is entirely of zone. Throughout antiquity there is broken country with mighty R. Sangarios. Inter Neoclassical and Neoclassical explorations and publications awaits systematic survey.

The topography of the district of ancient Propontis, the narrow channel of the Thracian peninsula, Europe and Asia here one of narrow horizons. Bithynia is entirely of zone. Throughout antiquity there is broken country with mighty R. Sangarios. Inter Neoclassical and Neoclassical explorations and publications awaits systematic survey.

The topography of the district of ancient Propontis, the narrow channel of the Thracian peninsula, Europe and Asia here one of narrow horizons. Bithynia is entirely of zone. Throughout antiquity there is broken country with mighty R. Sangarios. Inter Neoclassical and Neoclassical explorations and publications awaits systematic survey.

**MAP 52 BYZANTIUM**

Grid	Name	Period	Modern Name / Location	Reference
B4	Arche Inc.	R	Trojan Mice	RE 1
B2	Arche	RE	Siv	RE 1
F2	Arche II	RE	near Kikkir	RE 1
H6	Arche III	RE	near Kikkir	RE 1.18
L	Arche IV	RE	near Kikkir	RE 1.18
F4	Arche V	RE	near Kikkir	RE 1.18
F4	Arche VI	RE	near Kikkir	RE 1.18
F4	Arche VII	RE	near Kikkir	RE 1.18
F4	Arche VIII	RE	near Kikkir	RE 1.18
F4	Arche IX	RE	near Kikkir	RE 1.18
F4	Arche X	RE	near Kikkir	RE 1.18
F4	Arche XI	RE	near Kikkir	RE 1.18
F4	Arche XII	RE	near Kikkir	RE 1.18
F4	Arche XIII	RE	near Kikkir	RE 1.18
F4	Arche XIV	RE	near Kikkir	RE 1.18
F4	Arche XV	RE	near Kikkir	RE 1.18
F4	Arche XVI	RE	near Kikkir	RE 1.18
F4	Arche XVII	RE	near Kikkir	RE 1.18
F4	Arche XVIII	RE	near Kikkir	RE 1.18
F4	Arche XIX	RE	near Kikkir	RE 1.18
F4	Arche XX	RE	near Kikkir	RE 1.18

**MAP 51 BYZANTIUM**

Grid	Name / Location	Period	Reference
C2	Maria Anastasi / Maria Tachos	BJ / L	Schubert 1911

**Unlocated Toponyms**

Name	Period	Probable Location	Reference
Philippis	HEL	RE	
Troica	HEL	Troica?	RE 32, 47 n. 1

**Bibliography**

Çizici 1996  
C. Çizici, *The Largest Roman water supply line, Tophet Sina Kalkutan Balkan, Istanbul, 1996.*

Cresson 1938  
T. Cresson, "Thakylion and Mice," *Ephemeris* 12 (1938) 33-71.

Cresson 1990  
T. Cresson, "Civitates Germaniae," *Ephemeris* 15 (1990) 39-42.

Cresson 1991  
T. Cresson, "Nec Deukalyon an Bithynia," *Ephemeris* 17 (1991) 79-100.

Dimitrova 1984  
D. Dimitrova, "Platanova na S. Aleksandra Rimski poiz Trakija," *Acta 8 (1984) 116-61.*

Dimitrova 1989  
I. Dimitrova, "Abdication de l'Empire Auguste," *Clio 10 (1989) 217-43.*

Dixon 1941  
I. A. Dixon, *Asiopolis and Dendrois in Bithynia*, Berlin, 1941.

Hauack 1969  
F. W. Hauack, *Civitates*, Cambridge, 1969.

Foss 1977  
C. Foss, "The Battle of the Crater: a new look," *Ancient Macedonia 2 (1977) 485-502.*

Foss 1987  
C. Foss, "St. Antonios and his church in Bithynia," *BOP 41 (1987) 187-98.*

Foss 1990  
C. Foss, "Byzantine Malagina and the Lesser Sangarios," *Anat 20 (1990) 151-83.*

Foss 1997  
C. Foss, "Stribos and Pylae: two parts of Bithynia," *Ephemeris* 22 (1997) 85-96.

French 1981  
D.H. French, *Roman roads and milestones of Asia Minor 2*, in *The Peloponnesus*, British Institute of Archaeology at Ankara Monograph 5, BSA, International series 105, Oxford, 1981.

Görschke 1927  
R. Görschke (ed.), *Byzanz Byzant Augustus*, 1927 reprint, Berlin, 1955.

Jahn 1964  
R. Jahn, *Constitutione Byzantiae: développement urbain et répartition géographique*, Paris, 1964.

Jahn 1975  
R. Jahn, *Les églises et les monastères des grands centres byzantins*, Paris, 1975.

Jones 1971  
R. A. M. Jones, *The cities of the eastern Roman provinces*, 2<sup>nd</sup> ed., Oxford, 1971.

Leid 1923  
N. Leid, *Studien zur Topographie*, Leipzig, 1923.

Majus 1959  
D. Majus, *Roman roads in Asia Minor*, 2 vols., Princeton, 1959.

# ANCIENT PLACES IN PLEIADES

## Apollonia/Sozousa/Portus Cyrenorum

last modified: 04 September 2007 11:28  
author: D.J. Mattingly  
contributor: R. Talbert, T. Elliott, S. Gillies


### + History

**Modern Location:**  
Marsa Susa


### Name-Location Associations:

- [Apollonia](#)
- [Sozousa](#)
- [Portus Cyrenorum](#)

### Alternate representations:

-  [Atom \(GeoRSS\)](#)
-  [KML](#)



 [Open in Google Earth](#)

# LINKS TO NAME-LOCATION ASSOCIATIONS


## Apollonia/Sozousa/Portus Cyrenorum

last modified: 04 September 2007 11:28  
author: D.J. Mattingly  
contributor: R. Talbert, T. Elliott, S. G

**History**

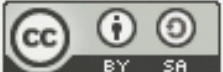
**Modern Location:**  
Marsa Susa

**Name-Location Associations:**

- [Apollonia](#) 
- [Sozousa](#)
- [Portus Cyrenorum](#)

**Alternate representations:**

- [Atom \(GeoRSS\)](#)
- [KML](#)



**Place Type:**  
settlement

**Certainty of association:**  
certain

**Locations:**

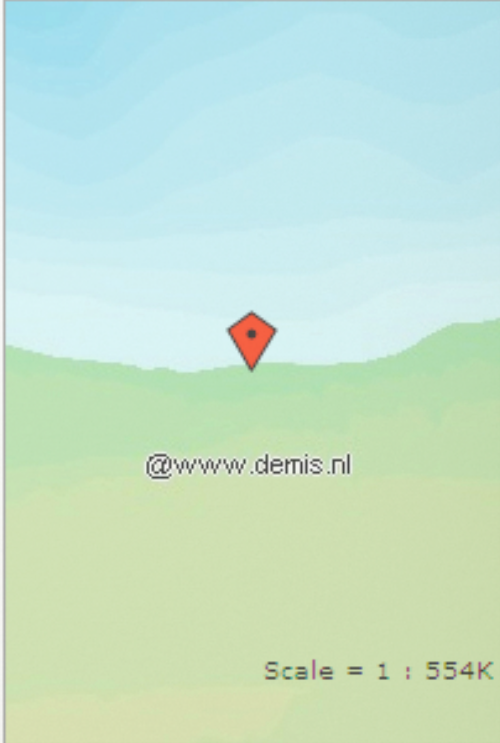
- [Point 941250347](#)

**Names:**

- [Apollonia](#)

**Secondary References:**

- [BATlas 38 C1 Apollonia/Sozousa](#)
- [Humphrey 1976](#)
- [Purcaro Pagano 1976 32-28](#)
- [Laronde 1996](#)
- [Stucchi 1975 358](#)



Scale = 1 : 554K

[Open in Google Earth](#)

# LINKS TO NAMES

## Apollonia/Sozousa/Portus Cyrenorum

last modified: 04 September 2007 11:28

author: D.J. Mattingly

contributor: R. Talbert, T. Elliott, S. G

### History


#### Modern Location:


Marsa Susa

#### Name-Location Associations:

- [Apollonia](#)
- [Sozousa](#)
- [Portus Cyrenorum](#)

#### Alternate representations:

 [Atom \(GeoRSS\)](#)

 [KML](#)



#### Place Type:

settlement

#### Certainty of association:

certain

#### Locations:

-  [Point 941250347](#)

#### Names:

-  [Apollonia](#) 

#### Secondary References:

- [BATlas 38 C1 Apollonia/S](#)
- [Humphrey 1976](#)
- [Purcaro Pagano 1976 32](#)
- [Laronde 1996](#)
- [Stucchi 1975 358](#)

## Apollonia

last modified: 01 October 2007 12:52

author: D.J. Mattingly

contributor: R. Talbert, T. Elliott, S. Gillies, B. Turner

### History

#### Name as Attested:

Ἀπολλωνία

#### Language and Writing System:

Greek (ancient)

#### Transliterated name:

Apollonia

#### Name type:

geographic name

#### Accuracy of Attestation:

accurate

#### Completeness of Attestation:

complete

#### Temporal attestations:

- [Attested: Archaic \(pre-550 BC\)](#)
- [Attested: Classical \(550 - 330 BC\)](#)
- [Attested: Hellenistic/Republican \(330 - 30 BC\)](#)
- [Attested: Roman \(30 BC - AD 300\)](#)
- [Attested: Late Antique \(AD 300 - 625\)](#)

#### Primary References:

- [Ptol., Geog. 4.4.5.2](#)
- [Strab. 17.3.20.59](#)

# PLEIADES FOLLOWS BEST OPEN SOURCE PRACTICES

---

- Based on our experiences with EpiDoc, MapServer and Plone
- Informed by Karl Fogel's "Producing Open Source Software"
- Uses Subversion and Trac
- Networked with other open source projects

# PLEIADES DATA MODEL

---

- Models our understanding of ancient geography
- Locations
- Names
- Places and temporal attestations
- References



# PLEIADES SITE AND SERVICES

---

- Based on Plone ( <http://plone.org> )
- Entity implements the model
- Geocoder provides KML and GeoRSS
- OpenLayers provides a map interface
- Web-style service architecture
- Implements Web and GIS standards

# PHASE I (EARLY '08): PERPETUAL UPDATE

---

- Core capability for Phase I: collaborative, web-based editing environment
- Users suggest improvements to content
- Users provide rationale and citations (including web links)
- Suggestions are rigorously reviewed
- Changes are tracked, versioned and attributed

# PHASE II: INTEROPERABILITY

---

- Address humanities geocomputing challenges: expense, expertise, complexity, data readiness, sustainability
- Implement web services for geohistorical data processing
- Produce free, open source mapping toolkit

# PHASE II: INTEROPERABILITY

---

- Collate geographic metadata in key projects with Pleiades
  - Primary sources (epigraphy, papyrology, numismatics, literature)
  - Modern literature (analysis, reference, bibliographic review)
  - Archaeological data
  - Multimedia resources

# PHASE II: INTEROPERABILITY

---

- Examples:
  - Ethnica recorded by the Lexicon of Greek Personal Names
  - Mints in the American Numismatic Society database
  - Epigraphic findspots in the Epigraphische Datenbank Heidelberg

# COLLABORATING PARTNERS

---

- Advanced Papyrological Information System (New York)
- American Numismatic Society (New York)
- Campo Arqueologico de Tavira (Portugal)
- Centre for Computing in the Humanities, King's College (London)
- Center for Hellenic Studies (Washington)
- Collaboratory for GIS and Mediterranean Archaeology (Greencastle, Indiana)
- Duke Databank of Documentary Papyri (Durham, North Carolina)
- Electronic Archive of Greek and Latin Epigraphy (Rome, Heidelberg, Bari)

# COLLABORATING PARTNERS

---

- Electronic Cultural Atlas Initiative (Berkeley)
- EpiDoc: Epigraphic Documents in TEI XML
- Exploitations agricoles et espace rural antiques (Lille)
- Heidelberger Gesamtverzeichnis der griechischen Papyrusurkunden Ägyptens
- Lexicon of Greek Personal Names (Oxford)
- Open Context (Berkeley)
- Perseus Digital Library (Boston)
- Portable Antiquities Scheme (London)
- Stoa Consortium for Electronic Publication in the Humanities (Lexington, Kentucky)

# DEMONSTRATION

---

- Two emerging geospatial standards
- KML: search and view Pleiades places using Google Earth
- GeoRSS: manipulate Pleiades places using Yahoo Pipes
- GeoRSS: geoprocessing feeds using Mush



# PLEIADES: BEYOND THE BARRINGTON ATLAS

RICHARD TALBERT, PRINCIPAL INVESTIGATOR

SEAN GILLIES, CHIEF ENGINEER

PLEIADES PROJECT, ANCIENT WORLD MAPPING CENTER  
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, U.S.A.

<http://pleiades.stoa.org>

Using New Technologies to Explore Cultural Heritage

National Endowment for the Humanities ~ Consiglio Nazionale delle Ricerche

5 October 2007, Washington D.C., U.S.A.