Final Performance Report
Grant Number: PW-50557-10
Title of Project: Pleiades: Content and Community for Ancient Geography
Name of Project Director: Tom Elliott
Name of Grantee Institution: New York University
Date Report is Submitted: July 31, 2014
In funding NYU’s request for 3 years’ support of the Pleiades project, the National Endowment for the Humanities endorsed the goal we articulated in our proposal: to attract, engage, and retain the animated community of users (scholars, students, and enthusiasts alike) that had begun to coalesce around Pleiades’ then-unique model of online, open historical geography. Community building was essential to the value proposition we articulated. Pleiades would reward users for their voluntary contributions of time, effort, and knowledge by providing geographical information they could use to enrich and expand their engagement with the past-oriented humanities, whether professionally or avocationally. In this way, Pleiades would reward NEH investment not only by providing a continually refreshed historical geospatial dataset of quality for free use, but also by exemplifying and testing an emerging model for the on-going sustainability and relevance of humanities reference works: distributed, open, and collaborative curation that drives down the core content-related costs that often stymie centrally staffed projects. We sought to deliver not only a free website and dataset, but an active user community, capable of carrying on collaborative content curation for many years to come. We are happy to report that we have succeeded in meeting this goal.

Project Activities and Accomplishments

Our NEH-approved project description and plan of work enumerated 8 objectives tied to the overall goal of recruiting, retaining, engaging, and rewarding community members at all levels. Each of these are treated in the following subsections.

Recruiting new users (proposal sections 3.2.1.1 and 3.6)

We planned a heterogeneous approach to recruiting new users, relying on everything from presentations at professional meetings to technical steps aimed at surfacing Pleiades content in the major search engines. In addition to the steps outlined in the proposal, we sought to raise the profile of the project further by establishing an integrated project blog, a Twitter account, and a Facebook page (all at the prompting of our users, who supported the project team in recruiting and outreach). The Pleiades Credits Page was another innovation aimed at showcasing the importance of our contributing users. Rolled out in May 2012, it was inspired in part by the “Collaborators’ Bill of Rights” that emerged from the NEH-funded “Off the Tracks—Laying New Lines for Digital Humanities Scholars” workshop in January 2011. It is laid out like a journal masthead and authors’ list so as to be accessible to scholarly members of our audience. It lists all community members whose contributions have been published to date and lets the user re-order the list by name, number of contributions, and date of membership.

Completing rollout of content from the Classical Atlas Project (3.2.1.2)

The final tranche of coordinate data for places registered in the Barrington Atlas of the Greek and Roman World was published in Pleiades in May 2012 (data originally created for print by the NEH-funded Classical Atlas Project). We had identified this task from the beginning as a major centerpiece of the grant period; Pleiades was always envisioned as enabling the digital exploitation of the CAP legacy. This painstaking work entailed the programmatic extraction and reformatting of toponyms, dates, bibliography, and other indicia from the CAP compilation materials. The resulting dataset was then checked for completeness by the Pleiades Chief Engineer (Sean Gillies) and merged with coordinate data digitized by our project partners in the Digital Atlas of Roman and Medieval Civilization, who had worked under the direction of Harvard Professor Michael McCormick. Having begun the period of performance with basic data items in
the system for 11,349 ancient places (only 4,853 of which had spatial coordinates and only 8,918 of which had name information), the full ingest of the CAP dataset brought our geohistorical data resource count to 93,280 (33,290 location resources and 26,312 name resources documenting 33,678 ancient places and spaces).

**Improving and expanding content (3.2.1.3)**
The proposal predicted that Pleiades users would create and modify content in significant but unpredictable ways during the period of performance. We also identified in advance two content enhancement initiatives that would proceed in tandem: creation of new content for previously unpublished Coptic archaeological sites in Egypt and replacement in CAP-derived toponym data of transliterated Greek with Unicode Greek characters.

During the reporting period, Pleiades users created 10,147 new data resources (3,789 names, 5,340 coordinate locations, and 1,018 places and spaces) and updated 39,200 others. These gains were made in two ways: by the programmatic integration of large, externally created datasets, and by individual interventions through the web interface.

Three examples of large data imports are particularly worthy of mention here. One is the result of the NEH-funded Gazetteer of the Ancient Near East (GANE) project, conducted by Francis Deblauwe and Eric Kansa for the Alexandria Archive Institute. This work brought 2,545 new placename variants and 179 new geographic locations into Pleiades, deriving them from the most frequently indexed places appearing in the Tübinger Atlas des Vorderen Orients (TAVO). We picked up places like Tehran, Mari, and Tel Aviv that had not figured in BAtlas. The second example is a gift of 2,276 sets of more accurate coordinates, improving on and filling gaps in the DARMC data, that came from Swedish scholar Johan Åhlfeldt. He also provided references to articles in the digital version of the Princeton Encyclopedia of Classical Sites at perseus.tufts.edu and to his own Regnum Francorum Online, which collects information about Merovingian and Carolingian geography. His efforts have touched 5,301 Pleiades data resources. Scott Vanderbilt’s work has included the elaboration of the single place resource for Hadrian’s Wall that derived from BAtlas with subordinate resources for each documented milecastle, turret, and other connected features.

Individual through-the-web contributions address every aspect of the Pleiades data model, from alternate historical and modern names to dates, descriptions, and categories. Contributor and Editor Jeffrey Becker leads the community in individual contributions, single-handedly adding 2,437 new data resources to Pleiades and enhancing 6,798 more. Like Åhlfeldt, he has helped to fill in gaps in the coordinates imported by DARMC, but has also concentrated on improving the short descriptions that accompany every Pleiades data resource so that users can more easily find the content they are seeking and differentiate multiple sites with the same name (e.g., Alexandria) when found in search listings. With Adam Prins, Jeff has also led an effort to improve and expand Pleiades entries for 177 (and counting) sites and cultural landscapes that appear on the UNESCO World Heritage List; thanks to this work, Pleiades now usually provides more accurate and complete coordinates for these sites than the UNESCO website itself.¹

¹ The tag UWHS is used in Pleiades to mark these features. A simple search for these characters will return an up-to-date list.
The Coptic initiative, carried out with external funding by Nicola Aravecchia while a Visiting Scholar at ISAW, produced a small number of excellent treatments (e.g., Ain el Sabil), but due largely to the immaturity of the Pleiades user interface during the early part of the project, did not succeed immediately in kindling a hoped-for collaborative effort to document all such sites in Egypt. The effort was especially valuable for the light it shed on the needs of Pleiades users; in so doing it informed a number of the improvements discussed in the following section. It is hoped that Aravecchia or other Pleiades users will be able to return to this valuable work in future.

The effort to provide Greek orthography for the most common existing name resources in Pleiades has produced significant content, but it has not yet been integrated and published. Created by staff at the Ancient World Mapping Center in Chapel Hill, the Greek dataset could not be started until all CAP content had been brought into Pleiades and stable identifiers assigned to each name resource (so, May 2012). The actual work, then, proceeded as staff funding (again external to this grant) and time became available, culminating in final review by the editor of the Barrington Atlas (Richard Talbert) and delivery to the Pleiades team in spring 2014. The Pleiades managing editors (Tom Elliott and Ryan Horne) plan to write and execute the scripts necessary to upload these 1,150 Greek name strings into Pleiades in fall 2014. The editorial college, recognizing the degree of expert review this data has already received, plans to push them directly to "published" status once the accuracy and completeness of the programmatic upload is verified.

**Improving the user experience (3.2.1.4)**

Our proposal highlighted ease of access to data and ease of use of the website, as well as documentation and training, as critical areas for community building and project effectiveness. We pledged and implemented an agile, user-focused approach to addressing these needs as they were raised by members of the community. We revisited some areas of interest multiple times so that we could learn from the experiences of our users’ work with prior revisions, and so that we could exploit more recent improvements in open-source software components we used. There is not space in this report to recite the full suite of features developed for Pleiades during the period of performance, nor to narrate the development and testing iterations through which the current state of the system was achieved. Examples of key areas of emphasis will have to suffice.

Map display received significant, repeated attention over the course of the project. Maps now accompany the display of each place resource (e.g., Nemausus, modern Nîmes), as well as each of the location resources associated with a given place (e.g., the “Tour Magne” at Nemausus). Location maps provide not only visualization of data already in the system, but for registered users who are drafting changes or new locations, they can be manipulated to refine coordinate placement. Maps also accompany search results, thereby helping users to disambiguate multiple places bearing the same name. A similar map display appears on the internal home page, frequented by registered users of the site that highlights the most recent additions to the dataset. A large, auto-updating map graces the Pleiades landing page, showcasing a random subset of Pleiades content in order to alert new users to the general nature and breadth of the site's content.

Several different open-source and free-to-use mapping toolkits were tried over the course of the project. We are currently using the open-source Leaflet JavaScript library, which quickly builds
maps in each user’s browser by drawing on spatial data served by the Pleiades website and map base layers hosted, at modest cost, on Mapbox.com. Users can select from several different layers in most maps, including modern terrain, modern streets and cultural geography, ancient topography (created by the AWMC), and the Roman Empire (created by Johan Ahlfeldt for the Pelagios Project, using data from Pleiades and other sources). New layers could be added easily.

Another major interface innovation for Pleiades was rolled out in February of 2013 and refined over the subsequent 5 months: integration between Pleiades and OpenStreetMap (OSM). Wikipedia’s contributors accurately describe OSM as “a collaborative project to create a free editable map of the world”; its 1.6 million registered contributors use Geographic Positioning System (GPS) equipment and digitized map data to create a freely reusable geospatial dataset. In many areas overlapping with Pleiades, the efforts of the OSM community extend to the delineation of archaeological areas and extant ancient monuments. The editing interface for Pleiades locations makes it simple to enter the identifying number for an OSM feature (a “node” or a “way”). Once activated, Pleiades uses the identifier to query the OSM application programming interface for the associated spatial information. It creates a new location resource in Pleiades, populating it with the coordinates from OSM and creating a provenance record and a citation that links back to OSM and complies with its data license. This innovation has made the addition of coordinates to Pleiades easier in those areas where OSM coverage is sufficiently detailed.

We did not anticipate an area of user experience work that claimed as much as 40% of the Chief Engineer’s time during the last year and a half of the reporting period: site tuning and performance. As the quantity of data in Pleiades increased and as the site became more widely known and well-linked from other sites, performance began to suffer badly. Users frequently encountered long wait times for page responses, and from time to time encountered periods where only a “502 Bad Gateway” or similar message could be elicited from the site. The causes of these problems were multiple and overlapping, ranging from contention for database access between multiple instances of the web framework that were supposed to help balance load rather than exacerbate it, to “bot storms” during which search engines and other automated agents pummeled the site with so many rapid page requests that legitimate users were effectively shut out. It took time, experimentation, and research to identify workable solutions, but a combination of measures now ensures that the Pleiades web application can repel rapacious robots, monitor its own responsiveness, selectively and automatically restart stalled processes, and summon help from the managing editors as needed. Users are alerted to now-rare periods of system degradation via automated posts to a Tumblr web log established for the purpose.

Like the user interface, Pleiades documentation has been through several revisions as well. As the editorial college developed and matured, its members took on the task of replacing early lists of “frequently asked questions” and other pages and files with a more visually engaging “documents” section, organized by class of document and topic. Major sections were titled as calls to action (e.g., ”Need help?” and ”Pitch In!”) in order to encourage exploration. Revision and expansion of help documentation is on-going; the editors expect to publish a new contributors' guide that addresses a number of common questions and concerns in early fall 2014.

Most training for Pleiades has been done over the web, occasionally using free or low-cost voice services like Skype and Google Hangouts, or more commonly using Internet Relay Chat (IRC).
The preference for IRC arose from its use by the development team for routine, daily collaboration and was reinforced by repeated failures of group voice calls that cost the team valuable time. The editors organize periodic "review parties" and "community time" in IRC where all parties are welcome. Users also sometimes drop by the chat room in order to ask ad hoc questions or alert the Pleiades team to problems. The proposal envisioned heavy use of "webinars" and video screencasts, but these techniques (though applauded by reviewers of the proposal) have turned out to be a bad fit for the Pleiades community. They are time-consuming to produce and have to be thrown out and created from scratch whenever the user interface changes. Many users found them tedious, preferring instead to refer to narrative "how-to" documents and to follow up with questions via email or chat.

**Migrating bibliography to Zotero (3.2.1.5)**

After much investigation and consideration, we decided to defer the planned migration of Pleiades bibliography into the [Zotero.org](http://zotero.org) reference management system. This decision was driven by concerns that the Zotero development team was heavily focused on work supporting the enhancement of their client software while being slow to implement in its server application programming interface the full range of creation, reading, update, and deletion capabilities needed by projects like Pleiades. As late as winter 2013, these concerns obtained, leading us to publish the [Barrington Atlas bibliography in static HTML form](http://zotero.org) online in February 2013 and to continue use of internal database fields for the recording of new bibliography. In the interval, the Zotero development team has been able to return to the issue of the server, and has now made several releases that have culminated in a mature and full-featured API. A separately funded project at ISAW, focused on the cataloging of open-access online scholarship in ancient studies, is now working with this API. If the outcome of that project is as successful as anticipated, it is the intent of the Pleiades managing editors that, subject to the identification of necessary resources, the migration of Pleiades bibliographic data to Zotero would be beneficial.

**Facilitating reuse and remixing of content (3.2.1.6) and Providing automated links to related content (3.2.1.7)**

Although treated separately in the Pleiades proposal, it is now clear that these two concerns are very closely linked, both in minds of our audience and in any assessment of the impact of the project.

The Pleiades proposal identified the proprietary but then-ubiquitous ESRI Shapefile as the preferred format in which to make available exports of Pleiades content for download and use in other systems. We assumed at the beginning of the project (prior, one should note, to the advent of [Google Earth](http://google.com)) that a significant aspect of Pleiades data reuse would involve desktop Geographic Information Systems (GIS). Specification of the Shapefile format for downloads was driven by expert advice from GIS users during the proposal development process; however, it became clear early in the period of performance that the actual needs of our user community were more heterogeneous. A growing number of users wanted [Keyhole Markup Language (KML)](http://keyhole.com) files for direct use with Google Earth, whereas others wanted simple tabular data that could be pulled into both proprietary and open-source GIS software, as well as into custom-built software and scripts. Early on we implemented both KML and the well-known [Comma-Separated Values (CSV)](http://csv.com) format for nightly bulk exports that users could download en masse, and the content of these export files was refined several times subsequently in response to user feedback.
Internally, we needed an economical format for passing data between software components and interface layers. Gillies settled on the JavaScript Object Notation (JSON) format for this purpose, and added it as a format option alongside KML in Pleiades. His work on adapting and extending JSON to meet the needs of web-based geospatial applications intersected with the interests and activities of other geospatial software developers, blossoming into a full-blown open specifications effort (see http://geojson.org/). Thanks in part to the start given by the NEH-funded Pleiades project, GeoJSON is now widely used in both academic and commercial spatial software. Closer to home, the Pleiades GeoJSON serialization makes possible the development of third-party applications that draw on Pleiades content. A recent example of this is Ryan Baumann's fast and useful Pleiades Static Search, which the Managing Editors are now evaluating as a replacement for the native "quick search" component in Pleiades, which some users find to be less than thoroughly helpful.

Our proposal envisioned leveraging for Pleiades prior work we had done on "feed-based interoperability". Our goal was automatically to create links between websites that hosted material of interest for ancient studies, focusing on geographic commonalities (e.g., places of finding, original locations) in the data. The visionary goal, as described in an article by Elliott and Gillies that appeared in Digital Humanities Quarterly in 2007, was the ability seamlessly to search, aggregate, and use information from many, discrete databases and digital publications. The first steps toward realizing this vision, partly funded by a joint NEH/JISC grant under the rubric "Concordia," comprised experiments with the Atom XML feed format as a carrier for geographic linking information. In anticipation of full implementation, we equipped each Pleiades place resource with an Atom version.

As it happened, two external developments soon presented compelling alternatives that we embraced and implemented instead of our original plan. As the concept of Linked Open Data (LOD) emerged from the Semantic Web movement concurrent with the execution of this grant, the Pleiades team considered the Resource Description Framework (RDF), which is central to LOD, as another potential export mechanism for our content. This consideration gained traction when colleagues in the UK and Austria obtained funding for the Pelagios project, whose aim was the use of RDF (with Pleiades functioning as a gazetteer of reliable references for ancient places) to realize the kind of automatic, cross-project interoperability for which we had previously imagined using Atom. Prioritizing this work because of Pelagios, we ultimately devoted significant effort to implementing RDF serializations of Pleiades content, using both the Extensible Markup Language (XML) and the Terse RDF Triple Language (TTL). Our weekly TTL exports now constitute the most complete "data only" representations of Pleiades content. The Pleiades RDF pattern is also being used as a template for the exchange of historical gazetteer data on a global basis by a growing community of practice, a context in which Pleiades' RDF Vocabulary and descriptive vocabularies are of significant interest.

Pleiades and Pelagios have emerged together from this collaboration as leaders in a growing movement toward an LOD graph in ancient studies that extends beyond geography to embrace such objects of interest for research and discovery including personography, numismatics, and chronology. The Pleiades/Pelagios experiment was fundamental to the concept ISAW successfully proposed to the NEH Office of Digital Humanities for an Institute on Advanced
Topics in the Digital Humanities Grant (the Linked Ancient World Data Institute, LAWDI).\(^2\) For Pleiades’ through-the-web users, the Pelagios database and query API now supports a Pleiades user interface component that presents links to other websites around the world that provide information about geographically relevant texts, coins, artifacts, architecture, and concepts. Downstream impact seems sure to increase further as the latest round of Pelagios work produces ancient texts annotated with links to Pleiades resources for all the placenames mentioned therein.

Our suite of serialization formats are clearly of interest to our audience for other uses as well. Analysis of our server logs indicates that Pleiades export files made available in our “Downloads” section (in CSV, KML, and TTL) were retrieved 9,417 times by 1,483 unique remote hosts not associated with web spiders and search bots during the period July 2013 - May 2014 (our server does not retain logs older than 1 year). Of the unique remote hosts, 345 downloaded TTL, 527 downloaded CSV, and 527 downloaded KML. It is impossible for us trace all of the uses to which these downloads are being put, but we are aware of some. The Stanford Orbus project, for example, populated the settlement locations in the geospatial database against which its historical travel-time models run from downloaded Pleiades data.

ISAW's partner in creating and managing Pleiades -- the Ancient World Mapping Center at the University of North Carolina at Chapel Hill -- is another especially important user of Pleiades content in bulk. For some years now, it has been policy at AWMC that all the named features on the maps it produces are checked against Pleiades (these include, for example, the popular Routledge Wall Maps for the Ancient World series first released in 2010). The in-house geospatial database at AWMC is automatically cross-checked against Pleiades content on a regular basis, and changes and additions flagged for review and use at AWMC. This system underpins AWMC’s open online map creation tool, Antiquity À-la-carte. It has also proved valuable in a number of the AWMC’s publication projects, including maps for Dwayne Roller's new, annotated translation of Strabo (imminently forthcoming from Cambridge University Press), as well as its accompanying online map viewer. Plans are well-advanced for implementing a process that inserts changes made to the AWMC spatial database back into the Pleiades system automatically.

Another opportunity for cross-site linking arose in collaboration with ISAW's internally funded Ancient World Image Bank (AWIB) project. AWIB uses the Flickr.com photosharing website as a dissemination channel for free imagery of ancient sites, landscapes, and artifacts. Flickr's support for "machine tags" makes it possible to annotate the AWIB images with the unique identifying code that Pleiades assigns to each place resource. Code on the Pleiades website can request a list of appropriately tagged photos from the Flickr API, making it possible to illustrate Pleiades pages and provide links to relevant imagery on demand. This approach proved popular to several third-party photographers with the result that excellent imagery from beyond AWIB is now used, via Flickr, in Pleiades as well.

**Digitally archiving content (3.2.1.8)**

The individuals and institutions investing money and time in Pleiades deserve to see that investment protected for the long haul. Free online distribution of multiple copies in varied

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formats is one way in which the Pleiades community tries to ensure that its content will outlast the web framework in which it is presently curated. Intentional deposit in a third-party digital archive is another. As promised in the proposal, the Pleiades managing editors periodically package exported Pleiades content and deposit it in the NYU Faculty Digital Archive (FDA). The FDA responds to an institutional mandate to provide long-term, bit-safe archiving of digital research content developed by, or of interest to, the faculty of the university. The FDA makes use of the same digital asset management framework as the NYU Library’s Preservation Repository, which stores the products of another NEH-funded initiative: The Afghanistan Digital Library.

Audiences

Pleiades serves a growing, heterogeneous, and global audience. Anonymous use of the Pleiades website has increased steadily since we began using Google Analytics in November 2010. We averaged 3,123 visitors and 14,284 page views per month in 2011, growing to 6,941 visitors and 26,601 page views per month in the first five months of 2014. Appendix 1 includes figures illustrating key aspects. Downloads of Pleiades data files are not tracked by Google Analytics, but information about them is captured in our server logs (see our discussion “Facilitating reuse and remixing of content,” above, for analysis).

Our contributor community has grown from a roster of less than 10 (including the 5 original editors) at the start of the grant period to 280 registered contributors today. Of these, 83 have seen substantive original contributions to Pleiades content reach the publication stage; others are still “learning the ropes”. Our all-volunteer editorial college now consists of 10 scholars who are supported by an active team of 7 reviewers invited by the editors from the wider community because of their evident acumen, devotion to the goals of the project, and potential to become editors themselves in future.

Evaluation

No formal evaluation of the project was proposed or budgeted. Project staff conducted an informal, anonymous poll of Pleiades community members in late 2012 with the goal of verifying our direction and priorities with respect to community expectations. The results of the survey, which both vindicated our direction and established focus for the final phase of the grant, were published on the website. The managing editors hope to conduct a new community survey in early 2015 in order to help verify and refine the use patterns we see in our server data and to prioritize future development.

Continuation of the Project and Long-Term Impact

Pleiades will continue as a project and web resource. It has become integral to digital publication and research support systems being developed at ISAW, and is also at the core of the spatial data management strategy that supports the operations of the AWMC. The managing editors, who represent these two organizing institutions, are committed to establishing a formal memorandum of cooperation between the two organizations in order to codify key aspects of ongoing collaboration and support of Pleiades. For its part, ISAW has made the annual costs of

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3 The NEH reporting guidelines request sex and age (among other indicia) of project audience, but we do not have such information to share in this report. It has only lately become possible to use Google Analytics to infer sex and age of users and the Editorial Board has yet to take up discussion of such a step which, in any case, would necessitate modification of our privacy document in advance.
server leasing, systems administration, and map tile hosting part of its operations budget for
digital programs, thereby ensuring a steady foundation for the activity of the community the NEH
has helped establish to carry on the work.

We expect the long-term impact of Pleiades to be significant and varied. The TAVO/GANE
example is indicative of an emerging role for Pleiades in digital preservation through integration
and curation of new data. Interest in using Pleiades in this way is growing, especially with regard
to the study of the Near East. Elliott has been advising the creators of the NEH-funded Syriac
Gazetteer, whose digital content is already tightly cross-referenced to Pleiades. An export of their
toponyms and historical data is high on the list of priorities for future import into Pleiades. Elliott
has also had recent discussion with Islamic scholars at Hamburg University, Tufts University,
and the Berlin-Brandenburgische Akademie der Wissenschaften aimed at using Pleiades to
publish geographical research data expected from The Early Islamic Empire at Work research
project, which is funded by the European Research Council, and from other initiatives.

Pedagogical uses of Pleiades are also growing. Pleiades Editor Adam Rabinowitz made use of
Pleiades in an undergraduate archaeology classroom during the 2013-2014 academic year, and
for an undergraduate mythology course this summer. His experiences have informed on-going
revisions of Pleiades help documentation. Rabinowitz and Elliott have meetings scheduled for
late July 2014 with faculty from Tufts University who are planning to use Pleiades with
undergraduates this fall.

Several projects have spun off, or been inspired or helped by, Pleiades. Pelagios, TAVO/GANE,
and the Syriac Gazetteer have already been mentioned. The NEH-funded PeriodO project, which
seeks to do for historical and archaeological time periods what Pleiades has done for ancient
geography, is another academic project with roots in this one. The GeoJSON specification has
already been mentioned as one technical spinoff that has seen significant adoption outside the
digital humanities. The open-source "Shapely" software library is another: this software package
for manipulation and analysis of planar geometric objects is written in Python and had its origins
in code written and adapted for use in Pleiades.

As envisioned in the proposal, we anticipate that, from time to time, Pleiades (together with allied
projects) will have recourse to additional public and foundation funding for specific tasks beyond
the scope of day-to-day operations, including technology upgrades and content conversion
initiatives. Pleiades is already in need of a framework update; we currently run on a version of the
open-source Plone content management system that is a full major revision behind the current
release. An upgrade would likely confer a number of performance and security benefits. The
managing editors plan to engage a Plone services vendor in the coming year to help estimate
the costs of an upgrade and other performance improvements aimed at reducing the page load
times our users encounter on key dynamic landing pages and for search. Third-party projects, such as Ryan Baumann’s Pleiades Static Search, raise the attractive
possibility of a future in which distributed and separately developed web applications leverage a
shared set of core services and data to provide varied and perhaps even more sustainable
options for search, access, and visualization.
Grant Products
The principal product of this grant is the Pleiades website itself: http://pleiades.stoa.org. Archival copies of Pleiades data may be downloaded from the NYU Faculty Digital Archive.
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Figure 1: Browser Sessions per Month

Figure 2: Browser Sessions by Country (Top 10)
Figure 3: Browser Sessions by City (Worldwide)

Figure 4: Browser Sessions by City (USA)
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Appendix 2: Screen Shots

NB: The Flickr Application Programming Interface (API) that Pleiades uses to embed images in some of its web pages was suffering an extended outing when these screen shots were taken. This is the cause of the “Loading” notice seen under the heading “Photos” in the right-hand column of some screen shots.

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Pala Kameni

Last modified: Thu Jul 24 2014 by jbecker

Pala Kameni is the smaller of the two volcanogenic islands in the centre of the Santorini caldera, formed over the last two millennia. It was most likely formed before or during the major period of volcanic activity in A.D. 1866-1870.
Pleiades is a historical gazetteer and more. It gives scholars, students and enthusiasts worldwide the ability to use, create, share, and map historical geographic information about the ancient world. It associates names and locations in time and provides structured information about the quality and provenance of these entities.

There is also a graph in Pleiades: names and locations are collected into conceptual bundles (places) and these collections are associated with other geographically connected places.

Pleiades identifies places within the emerging web of ancient world linked data. It is an authoritative hub in an expanding constellation of online publications that treat the histories, languages, texts, and artifacts of antiquity.

Pleiades is one hundred percent open source, one hundred percent openly licensed and one hundred percent editable.

Our open source software gets used and improved by a diverse crowd of programmers in the humanities and beyond. Our openly licensed resources have no costs attached, no surprises or encumbrances.

Pleiades is a continuously published scholarly reference work for the 21st century. We embrace the new paradigm of citizen humanities, encouraging contributions from any knowledgeable person and doing so in a context of pervasive peer review. Pleiades welcomes your contribution, no matter how small, and we have a number of useful tasks suitable for volunteers of every interest.

More about the data ...

More about contributing ...

Pleiades is supported by:

[Image of Humanities logo]
Pleiades
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Recently Modified Resources

About Pleiades

Pleiades gives scholars, students, and enthusiasts worldwide the ability to use, create, and share historical geographic information about the ancient world in digital form. At present, Pleiades has extensive coverage for the Greek and Roman world, and is expanding into Ancient Near Eastern, Byzantine, Celtic, and Early Medieval geography.

The most recently modified resources are shown in the map at left.

All published content is accessible to everyone under open license. To join and contribute new or improved content, please see Welcome to Pleiades.

For a complete listing of editors, content contributors, and financial supporters, please see the credits page.
Credits

Pleiades is a joint project of the Ancient World Mapping Center, the Stoa Consortium, and the Institute for the Study of the Ancient World. Copyrights on software and content are held by the participating institutions and by the individual contributors listed below. Using, sharing, and remixing of the content is permitted under terms of the Creative Commons Attribution 3.0 License (cc-by).

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Reviewers: Sarah Bond, Stefano Costa, Arthur De Graauw, Stuart Dunn, Noah Kaye, Perry Scalfano, Scott Vanderbilt

Funding for the creation of this on-going digital publication has been provided by the participating institutions, and by grants from the U.S. National Endowment for the Humanities.

Pleiades incorporates content from the following works:


The website theme is adapted from planetheme_notecard by Christian Schneider.

The banner image of the Nereid Monument is adapted from a photo by ikamajia. The home page also uses images from Wikipedia, Dan Diffendale (on Flickr), and NYU’s Ancient World Image Bank (on Flickr).

The dynamic maps found throughout the website were designed and coded by Sean Gillies using the Leaflet javascript map library. User-selectable terrain layers are provided, including:

- "Modern terrain" and "Modern Streets" (2012) by Sean Gillies for ISAW
- "Roman Empire" (2012) by Johan Åhlén for the Pelagios Project. See further: About the Digital Map of the Roman Empire.

The AWMC and ISAW map bases are served to the web via Mapbox.com; funding provided by ISAW.

The presentation of credits on this page is intended to conform to the emerging best practice in digital humanities projects as reflected in the draft Collaborators’ Bill of Rights and the Fair Cite Initiative.

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The following individuals have contributed their time and talent to expanding and enhancing the content of Pleiades.
Individual Credits

The following individuals have contributed their time and talent to expanding and enhancing the content of Pleiades.

sort by: name | contribution | role | date

**Jeffrey Becker**
Reviewer, Editor; Member since 24 November 2009. 2457 additions, 6799 other contributions

**Johan Åhfeldt**
Member since 16 October 2011. 2595 additions, 2716 other contributions

**Francis Deblauwe**
Member since 19 October 2011. 40 additions, 3050 other contributions

**Eric Kansa**
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**Scott Vanderbilt**
Reviewer, Editor; Member since 1 February 2011. 790 additions, 106 other contributions

**Adam Prins**
Member since 5 April 2012. 146 additions, 380 other contributions

**Ryan Horne**
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**Perry Scalfano**
Reviewer; Member since 19 March 2012. 13 additions, 236 other contributions

**Arthur De Graauw**
Reviewer; Member since 16 April 2012. 9 additions, 93 other contributions
Sardinia Ins.

The second largest island in the Mediterranean Sea

Locations
None

Nouns
- Ichnoussa (750 BC - AD 640)
- Sardengia (Sardegnia: modern)
- Sardinia (750 BC - AD 640)
- Sardo (750 BC - AD 640)

Place type:
Island

Related Content from Pelagios

Google Ancient Places
Livy, Volume 5 (24);
Dictionary of Greek and Roman Geography (12);
The History of Rome, tr. by W.P. Dickson (6); The
History of the Decline and Fall of the Roman Empire,
(3); Livy, Volume 3 (5);
Gibbon's History of the
Decline and Fall of the Roman empire, repr. with
the omission of all passages of an irreligious or immoral
tendency, Volume I (5); The
Decline and Fall of the Roman Empire (6).
Place type: island

Makes a connection with:
- Tyrrenenum/Inferum Mare
- Serdoum Mare

Has a connection with:

Next 10 items - 1 2
- Saipros fl. — by S.L. Dyson — last modified Jul 30, 2013 12:00 PM
Saipros fl. (Flumendosa river)
- Nuraghe Orolo — by Jeffrey Becker — last modified Sep 12, 2013 11:58 AM
A nuragic monument near Sillianus, Sardinia, constructed primarily of granite and rising to a height of ca. 12 m and dating to the Middle to Late Bronze Age (seventeenth to ninth centuries BC).
- Nuraghe Sant’Imberia — by Jeffrey Becker — last modified Mar 15, 2013 04:48 PM
A nuragic complex near Alghero, Sardinia, composed of a main, central tower flanked by two minor towers and a bastion, and surrounded by a village. The complex dates from the Middle Bronze Age onwards.
- Villacidro — by S.L. Dyson — last modified Dec 06, 2012 04:09 PM
An ancient place, cited: BAtlas 4A3 Villacidro
- Nuraghe Santu Artine — by Jeffrey Becker — last modified Dec 07, 2013 05:45 PM
A nuragic structure dating originally ca. 1,600 to 1,450 BC
- Othoca — by S.L. Dyson — last modified Dec 14, 2012 02:28 AM
The site of a Phoenician port on the Gulf of Oristano in western Sardinia.
- Nuraghe S. Cadrina — by Jeffrey Becker — last modified Mar 20, 2013 08:16 PM
A nuragic village of the Middle Bronze Age (ca. 1700-1350 BC), Nuraghe S. Cadrina has a central tower with an original diameter of 11.70 m.
- Heraion — by S.L. Dyson — last modified Jan 28, 2013 01:15 AM
An ancient place, cited: BAtlas 46 unlocated Heraion
- Monte Uralidi — by S.L. Dyson — last modified Dec 06, 2012 04:37 PM
An ancient place, cited: BAtlas 4A3 Monte Uralidi
- Pheronia — by S.L. Dyson — last modified Jun 08, 2013 12:26 AM
An ancient place, cited: BAtlas 48A2 Pheronia
- Castelsardo — by S.L. Dyson — last modified Dec 18, 2013 02:45 PM
An ancient place, cited: BAtlas 48A2 Castelsardo
- Buduntini — by S.L. Dyson — last modified Mar 04, 2013 03:21 PM
Buduntini, the only freshwater lake in Sardinia.
- Hydata Hypsitana/Forum Traiani — by S.L. Dyson — last modified Jul 14, 2013 05:35 PM
Hydata Hypsitana/Forum Traiani (modern Fordorganius) was a Roman settlement in Sardinia along the road from Tibula to Othoca.
- Nuraghe Nuraddeo — by Jeffrey Becker — last modified Mar 20, 2013 06:18 PM
A Middle Bronze Age nuragic site with a central tower standing ca. 14 m tall near Suni, Sardinia.
- Nuraghe Ruiu — by Jeffrey Becker — last modified Mar 16, 2013 09:44 AM
A hilltop nuragic complex with a central tholos tower dating to the Middle and Final Bronze Age (1600-1000 BC).
- Metella — by S.L. Dyson — last modified Jul 23, 2013 05:59 PM
An ancient place, cited: BAtlas 48A3 Metella
- Monte Sirai — by S.L. Dyson — last modified Sep 01, 2013 07:06 PM
A Phoenician, Punic and later Roman settlement in southeastern Sardinia. Monte Sirai also has evidence for nuragic settlement.
Monte Sairi — by S.L. Dyson — last modified Sep 01, 2013 07:06 PM
A Phoenician-Punic and later Roman settlement in southwestern Sardinia, Monte Sairi also has evidence for nuragic settlement during the second millennium BC.

Ferraria — by S.L. Dyson — last modified Dec 07, 2012 03:29 PM
An ancient place, cited: BAAtlas 48 B3 Ferraria.

Temos fl. — by S.L. Dyson — last modified Jul 28, 2013 11:53 PM
An ancient place, cited: BAAtlas 48 A2 Temos fl.

Bira — by S.L. Dyson — last modified Dec 08, 2012 04:03 PM
An ancient place, cited: BAAtlas 48 B3 Bira.

Usselina — by S.L. Dyson — last modified Dec 06, 2012 10:56 PM
A Roman colony in western Sardinia.

Neapolis — by S.L. Dyson — last modified Oct 20, 2013 12:46 AM
Neapolis was an ancient city of Sardinia, located on the west coast of the island at the southern extremity of the Gulf of Oristano, near the present-day località of Santa Maria di Nabui.

Caralis — by S.L. Dyson — last modified Feb 09, 2014 01:42 AM
A city with its origins in a Phoenician settlement of the seventh century BC, Caralis comes under Roman control in 238 BC during the Punic Wars. Florus refers to it as urbs urbinum, or capital of Sardinia.

Aristanis — by Jeffrey Becker — last modified Dec 11, 2012 12:58 PM
A Byzantine site in western Sardinia, made important by the location of a bishopric there by Torcetorio in AD 1070; now the modern city of Oristano.

Tharros — by S.L. Dyson — last modified Jul 25, 2013 12:23 PM
An ancient settlement located in western Sardinia on a promontory in the Gulf of Oristano. It originates as a Punic or Carthaginian settlement but was still a major town in Roman times.

Corsi — by S.L. Dyson — last modified Apr 26, 2013 05:03 PM
Corsi were an ancient tribe occupying a region of ancient Sardinia that is now known as Gallura.

Villaspeciosa — by S.L. Dyson — last modified May 30, 2014 09:28 PM

Ussana — by S.L. Dyson — last modified May 31, 2014 12:23 PM
An ancient place, cited: BAAtlas 48 B3 Ussana.

Nuraghe la Priscione — by Jeffrey Becker — last modified Dec 07, 2013 05:28 PM
A nuragic site of northeast Sardinia, occupied from the fourteenth until the ninth century BC. At its height the complex covers ca. five hectares.

Nuraghe Loelle — by Jeffrey Becker — last modified Jan 20, 2013 08:06 PM
A nuragic site near Caput Tyrsi.

Sulcis fl. — by S.L. Dyson — last modified Apr 26, 2013 10:02 AM
Sulcis fl. (Oxerri river) is a river in Sardinia.

Nuraghe Losa — by Jeffrey Becker — last modified Jun 09, 2014 09:39 AM
A nuraghe near Abbasanta, Sardinia.

Sulcis(s) — by S.L. Dyson — last modified Jun 22, 2014 06:47 PM
A site with Phoenician origins located in southwestern Sardinia.

Nemus Sorabense/Sorablie — by S.L. Dyson — last modified Dec 06, 2012 03:57 PM

Makopisia — by S.L. Dyson — last modified Jan 23, 2013 01:51 AM
A town known from Ptolemy, Makopisia (modern Macomer) is located in the Nuoro province of Sardinia.

Nora — by S.L. Dyson — last modified Jun 09, 2014 09:30 AM
A pre-Roman and Roman site in southern Sardinia.
Makopsisa — by S.L. Dyson — last modified Jan 23, 2013 01:51 AM
A town known from Ptolemy. Makopsisa (modern Macomer) is located in the Nuoro province of Sardinia.

Nora — by S.L. Dyson — last modified Jun 09, 2014 09:30 AM
A pre-Roman and Roman site in southern Sardinia.

Hydata Lesitana — by S.L. Dyson — last modified Dec 11, 2012 11:45 AM
An ancient thermal site with both nuragic and Roman remains. Now the community of Benettuti on the island of Sardinia.

Caput Tyrsi — by S.L. Dyson — last modified Dec 07, 2012 01:52 PM
An ancient place, cited: BAtlas 48 B2 Caput Tyrsi

Gourulis Nea? — by S.L. Dyson — last modified Dec 06, 2012 03:38 PM
An ancient place, cited: BAtlas 48 A2 Gourulis Nea?

Nurac Sessor — by S.L. Dyson — last modified Mar 15, 2014 11:59 PM
An ancient place, cited: BAtlas 48 A2 Nurac Sessor

Nurac Palmavera — by Jeffrey Becker — last modified Jun 13, 2014 11:30 AM
A site near Aghero, Sardinia, belonging to the first nuragic phase (fifteenth and fourteenth centuries BC).

Su (S) — by S.L. Dyson — last modified Jun 22, 2014 06:48 PM
Modern Tortoli, Sardinia.

Patulcenses Campani — by S.L. Dyson — last modified Sep 13, 2013 12:23 PM
An ancient place, cited: BAtlas 48 B3 Patulcenses Campani

Monte d’Accoddi — by Jeffrey Becker — last modified Jul 03, 2013 11:31 AM
A ramped megalithic structure dated to around 2700-2000 BC

Tibula? — by S.L. Dyson — last modified Jul 03, 2013 12:04 PM
An ancient place, cited: BAtlas 48 B1 Tibula?

Sarcapos — by S.L. Dyson — last modified Dec 06, 2012 04:00 PM
An ancient place, cited: BAtlas 48 A3 Sarcapos

Su Nuraxi di Barumini — by Jeffrey Becker — last modified Apr 12, 2013 05:07 PM
A nuragic site in Barumini, Sardinia; named as a UNESCO World Heritage Site in 1997

Tejula — by S.L. Dyson — last modified Dec 06, 2012 04:05 PM
An ancient place, cited: BAtlas 48 A4 Tejula

Turris Libisonia — by S.L. Dyson — last modified Aug 13, 2013 10:06 PM
A settlement of northwestern Sardinia, located at the mouth of the Mannu River. The site served as a port in Phoenician, Carthaginian, and Roman phases of occupation. The modern Porto Torres stands on the site, about 10 miles distant from Sassari.

Carbia — by S.L. Dyson — last modified Jan 20, 2013 07:02 PM
An ancient place, cited: BAtlas 48 A2 Carbia

References:
- Cite As Evidence: Plin. HN 3.84.1
- See Further: BAtlas 48 A2 Sardinia Ins.
- See Further: RF Sardinia
- See Further: Paus. 10.17.2
- See Further: Wikipedia Sardinia

Initial Provenance:

Details:
The Barrington Atlas Directory notes: Sardinia
An ancient place, cited: BAtlas 48 B1 Tibula?

- **Sarcapos** — by S.L. Dyson — last modified Dec 06, 2012 04:00 PM
  An ancient place, cited: BAtlas 48 B3 Sarcapos

- **Su Nuraxi di Barumini** — by Jeffrey Becker — last modified Apr 12, 2013 05:07 PM
  A nuragic site in Barumini, Sardinia; named as a UNESCO World Heritage Site in 1997

- **Tegula** — by S.L. Dyson — last modified Dec 06, 2012 04:05 PM
  An ancient place, cited: BAtlas 48 A4 Tegula

- **Turris Libisonia** — by S.L. Dyson — last modified Aug 13, 2013 10:05 PM
  A settlement of northwestern Sardinia, located at the mouth of the Mannu River. The site served as a port in Phoenician, Carthaginian, and Roman phases of occupation. The modern Porto Torres stands on the site, about 10 miles distant from Sassari.

- **Carbia** — by S.L. Dyson — last modified Jan 20, 2013 07:02 PM
  An ancient place, cited: BAtlas 48 A2 Carbia

Next 15 Items » 1 2

References:
- Cite As Evidence: Plin. HN 3.84.1
- See Further: BAtlas 48 A2 Sardinia Ins.
- See Further: RE Sardinia
- See Further: Paus. 10.17.2
- See Further: Wikipedia Sardinia

Initial Provenience:

Details:
The Barrington Atlas Directory notes: Sardinia

Canonical URI for this page:
http://pleiades.stoa.org/places/472014

Alternate representations:
Atom, JSON, Alternate JSON (Experimental), KML, KML (Neighborhood), RDF+XML, Turtle

Suggested citation:

Cite this resource in Wikipedia:

Ain el-Gedida

Ain el-Gedida

— filed under: dare:ancient-1, dare:feature-settlement, dare:major-0

Creators: Nicola Annunziata — last modified Oct 20, 2012 03:41 PM Copyright © The Creators. Sharing and remixing permitted under terms of the Creative Commons Attribution 3.0 License (cc-by).

Roman/late antique settlement, with substantial remains of an industrial area, a church complex, and a mud-brick temple reused as a ceramic workshop.
Place type: settlement

Makes a connection with:

Has a connection with:

References:

Initial Provenance:
Pleiades

Details:

**Ain el-Gedida** is located in the Dakhla Oasis of Upper Egypt, ca. 2.5 km northwest of the village of Ismant and ca. 5 km northwest of the ancient site of Kellis (Ismant el-Kharab). The whole site is delimited to the north by the escarpment, which dramatically divides the Dakhla Oasis from the desert plateau, and to the east, south, and west by cultivated fields and patches of desert land.

The site (map) consists of five low hills, of which mound I, centrally located, is the largest, covering an area of about one-half hectare (plan). Three smaller mounds (II-IV) lie to the south and southwest of mound I, while mound V is located about 230 m to the northeast. Archaeological remains of mud-brick structures were identified on all five mounds, but excavation was carried out only on mound I.

The Dakhla Oasis Project conducted a preliminary survey of the site in 1980, and the local Coptic and Islamic Inspectorate carried out three seasons of excavation between 1993 and 1995. The investigation focused on the south half on mound I and revealed a very intricate complex of rooms (several identifiable as magazines), surrounding a large, open-air central kitchen. The area showed clear evidence of a multi-phased development, with the addition of clusters of rooms built against earlier ones and extending to the outer edges of the mound. A Columbia University team, with Nicola Aravecchia as field director, excavated on the main hill from 2006 until 2008.

In the northern half of the mound, sets of interconnected rooms, sometimes opening onto apparent inner courtyards, were built against each other to form larger, roughly rectangular blocks, divided by a network of roughly perpendicular streets. Three interconnected rooms (B1-3) were excavated, i.e., two roughly square, symmetrical spaces opening onto a rectangular court (with two other unexcavated rooms built against the opposite side of the courtyard, for a total of five spaces). Archaeological investigation points to the identification of this sector as a residential area. A remarkably large structure was also surveyed along the north end of mound I, consisting of two rectangular rooms located at the center of a wide, rectangular court (ca. 16 m north-south by 12 m east-west). The complex was likely a pigeon tower, a common feature in the oasis landscape.

The central part of the hill reflects a more irregular arrangement, which might be the result of a less planned, multi-phased rearrangement of space. A church complex is located in the middle of the mound. The church (B5) consists of a one-nave room, originally barrel-vaulted; it is oriented to the east and ends with a round apse and L-shaped pastophorion, both added at a later time against the east wall. Mud-brick benches run along the north, west, and south walls of this room, which was originally accessible from the north through two doorways, one near the north wall and another near the south wall.
Strophades

You are here: Home → Ancient Places → Strophades/Plotai (island group) → Strophades

Creators: Tom Elliott — last modified Jul 30, 2014 08:50 PM
Contributors: Sean Gillies
Copyright © The Creators. Sharing and remixing permitted under terms of the Creative Commons Attribution 3.0 License (cc-by).

Romanized Name(s):
Strophades

Name as attested:
Στροφάδες

Language:
Greek (ancient)

Name type:
geographic name

Accuracy of transcription:
accurate

Level of transcription completeness:
complete

Level of certainty in association between name and the place:
Certain

Temporal attestations:
- Hellenistic Greek, Roman Republic (330 BC-50 BC) (confident)
- Roman, early Empire (30 BC-AD 300) (confident)
- Late Antique (AD 300-AD 640) (confident)

References:
- Cite As Evidence: Strabo 8.4.2
- Cite As Evidence: Apollod. 1.9.21
- Cite As Evidence: StByz (Mainke: Google): Στροφάδες

Initial Provenance:
Pleades

Details:
Ishtar Gate at Babylon

Feature type: unknown

Geometry and coordinates (long, lat order): 
{"type": "Point", "coordinates": [44.4222199999998, 32.5433239999997]}

Association Certainty: Certain

Positional Accuracy Assessment:

Temporal attestations:

References:
- Cite: Wikipedia: Ishtar Gate

Initial Provenance: Pleiades

Details:
location of London Wall

Location based on OpenStreetMap

Feature type: city wall

Geometry and coordinates (long, lat order): 
{ "type": "Point", "coordinates": [ -0.760478, 51.5100429 ] }

Association Certainty: Certain

Positional Accuracy Assessment: [Generic OSM Accuracy Assessment]

Temporal attestations:
- Roman, early Empire (30 BC-AD 300) (confident)

References:
- Cite As Data Source: osm:way=55421654
- See Further: English Heritage, LONDON WALL

Initial Provenance:

Details:
The remains of a third century AD defensive wall. It ran from the River Thames to the north of the city and was later incorporated into the medieval London Wall. It is notable for its use of stone setts, a technique that allowed for a strong and durable structure.

Related Content from Pelagios

Google Ancient Places
Dictionary of Greek and Roman Geography (27); The History of the Decline and Fall of the Roman Empire, Volume 1 (1)

Vici.org - Classical antiquity nearby
Vici.org - Classical antiquity nearby (1)

Pelagios Annotations from the Portable

Documents related to the Pleiades project.

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Individuals and institutions around the world are using Pleiades content and services. Find out more about them.
Data for download

CSV Tables

Each morning, tables summarizing published locations, names, and places are written to gzipped CSV files at http://atlantides.org/downloads/pleiades/dumps/. Text in these files is UTF-8 encoded; some CSV readers (e.g., Microsoft Excel) assume ASCII encoding for CSV files, so be careful!

We keep a week’s worth of files, deleting older ones. The files named pleiades-<n>-latest.csv.gz are symbolically linked to the most recent catalog dumps. The schemas of these files are documented in a README. The resources under http://atlantides.stoa.org/places/ remain the canonical ancient world resources; the contents of the tables are only thin slices. The recently modified page or its corresponding RSS feed are the best ways to track what is changing in these daily dumps.

In addition to the individual resource editorial workflow, the Pleiades project is developing a workflow for updating resources in bulk using modified subsets of these dumped tables. After manipulating the names table in Google Refine, we’ve successfully updated the attested time periods of 2071 ancient names. We expect to be able to guide tables modified by users through this same process soon.

KML

All mappable places are read from our catalog and written to a zipped KML (KMZ) file each morning. We keep a week’s worth of files at http://atlantides.org/downloads/pleiades/kml/ and delete older ones.
Search results — 16 items matching your search terms

Ids from this batch: toggle visibility

- Apollonia

- Apollonia
  An ancient road station and settlement along the Via Egnatia in Mygdonia, between Amphipolis and Thessacniki. Located near the modern municipality of Nea ... by E.N. Borza — last modified Oct 20, 2012 06:16 PM — filed under: dare:ancient-1, dare:minor=0, dare:feature=station — Relevance: 100%

- Apollonia
  An ancient settlement, attested by literary or documentary sources, whose precise location cannot be determined today by W.M. Murray — last modified Aug 20, 2012 02:01 PM — Relevance: 100%

- Apollonia

- Apollonia

- Apollonia

- Apollonia?

- Apollonia
Appendix 3: The Pleiades Editorial College

Senior Editors:
Roger S. Bagnall (Institute for the Study of the Ancient World, New York University)
Richard J.A. Talbert (Department of History, University of North Carolina at Chapel Hill)

Managing Editors:
Tom Elliott (Institute for the Study of the Ancient World, New York University)
Ross Twele (outgoing; Ancient World Mapping Center, University of North Carolina at Chapel Hill)
Ryan Horne (incoming; Ancient World Mapping Center, University of North Carolina at Chapel Hill)

Associate Editors:
Jeffrey Becker (Independent Scholar and Latin Teacher, Oxford School District, MS)
Sarah Bond (incoming; Department of Classics, University of Iowa)
Sean Gillies (MapBox.com)
Michael McCormick (Department of History, Harvard University)
Adam Rabinowitz (Department of Classics, University of Texas)
Brian Turner (Department of History, Portland State University)
Appendix 4: Example Serialization Formats

This appendix presents examples of the various serialization formats in which Pleiades data is made available freely for third-party reuse and remixing.

Contents:
A4.1-2: Screen capture of HTML Serialization as rendered in the Chrome web browser
A4.3-18: RDF/XML
A4.19-20: JSON
A4.21-33: KML
A4.34: Screen capture of KML as visualized in Google Earth
A4.35: Atom/XML
A4.36-40: RDF/TTL
Nemausus (modern Nîmes) was the ancient capital of the Volcae Arevaci and later a Roman colony.
Place type:
urban area, city gate, settlement, amphitheatre, amphitheater, temple, sanctuary, shrine, monument, tomb, fort, tower

Makes a connection with:
• Volcae Arematii

Has a connection with:
• Nimes aqueduct — by S. Loseby — last modified Feb 06, 2013 07:28 PM
Supplied Nemausus with water from the mid-first to sixth centuries AD.

References:
• Cite As Evidence: Plin. HN 3.37.2
• Cite As Evidence: TP 104 (Talbert 782)
• Cite As Evidence: Mela 2.75.3
• See Also: RFO 171
• See Further: BAtlas 15 C2 Nemausus
• See Further: PECS (Perseus), NEMAUSUS (Nimes) Gard, France
• See Further: Rivet 1988, 162–66
• See Further: Lassalle 1990
• See Further: Strab. 4.1.12
• See Further: Wikipedia, Nimes

Initial Provenance:
Barrington Atlas: BAtlas 15 C2 Nemausus

Details:
The Barrington Atlas Directory notes: Nimes

Canonical URI for this page:
http://pleiades.stoa.org/places/148142

Alternate representations:
Atom, iJSON, Alternate JSON (Experimental), KML, KML (Neighborhood), RDF-XML, Turtle

Suggested citation:

Cite this resource in Wikipedia:

```
```
Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.
Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.
<dcterms:title>Nemausus</dcterms:title>
</skos:Concept>
</foaf:primaryTopicOf>
</spatial:Feature>
<foaf:Person rdf:about="http://darmc.harvard.edu">
  <foaf:name>DARMC</foaf:name>
</foaf:Person>
<pleiades:Location rdf:about="http://pleiades.stoa.org/places/148142/location-of-porte-daughte">
  <osgeo:asGeoJSON>{"type": "Point", "coordinates": [4.3631548999999996, 43.8394385000000000]}</osgeo:asGeoJSON>
  <pleiades:during>
    <skos:Concept rdf:about="http://pleiades.stoa.org/vocabularies/time-periods/roman">
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      <skos:inScheme rdf:resource="http://pleiades.stoa.org/vocabularies/time-periods"/>
      <skos:scopeNote xml:lang="en">The Roman period (i.e., the early Roman Empire) in Greek and Roman history. For the purposes of Pleiades, this period is said to begin in the year 30 before the birth of Christ and to end in the year 300 after the birth of Christ. [[-30, 300]]</skos:scopeNote>
    </skos:Concept>
  </pleiades:during>
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  <dcterms:modified>2014-07-29 15:00:39</dcterms:modified>
  <osgeo:asWKT>POINT (4.3631548999999996 43.8394385000000000)</osgeo:asWKT>
</pleiades:Location>
Atop Mount Cavalier, a tower on the fortified walls of ancient Nemausus

Wikipedia, Tour Magne

OpenStreetMap (changeset 11165466, Sat, 31 Mar 2012 12:15:28 +0000)
Late Antique (AD 300-AD 640)

The Late Antique period in Greek and Roman history. For the purposes of Pleiades, this period is said to begin in the year 300 and to end in the year 640 after the birth of Christ. [[300, 640]]

Maison Carrée

2013-06-19 13:12:52

The NW corner of the temple on the ancient forum built ca. 16 BC and dedicated to Caius and Lucius.
ancient forum built ca. 16 BC and dedicated to Caius and Lucius Caesar.

Hellenistic Greek, Roman Republic (330 BC–30 BC)
The Hellenistic period in Greek history and the middle-to-late Republican period in Roman history. For the purposes of Pleiades, this period is said to begin in the year 330 and end in the year 30 before the birth of Christ. [[-330, -30]]
<skos:Concept rdf:about="http://pleiades.stoa.org/vocabularies/time-periods/classical">
  <skos:prefLabel xml:lang="en">Classical (Greco-Roman; 550 BC-330 BC)</skos:prefLabel>
  <skos:inScheme rdf:resource="http://pleiades.stoa.org/vocabularies/time-periods"/>
  <skos:scopeNote xml:lang="en">The Classical period in Greek and Roman history. For the purposes of Pleiades, this period is said to begin in the year 550 and end in the year 330 before the birth of Christ. [[-550, -330]]</skos:scopeNote>
</skos:Concept>

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Nîmes

Westernmost point of the amphitheater, built ca. AD 70.

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Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.

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description: "Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.

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Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.

- ID: 148142
- In context: Locations of Nemausus
- Names: 

The Snippet contains the following information:

- Urban, City-gate, Settlement, Amphitheatre, Temple, Fort; 550 BC - AD 2100

For more details, visit the Pleiades Stoa project at the following link:

http://pleiades.stoa.org/places/148142
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<li>Locations: <span>
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Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.
Nemausus (modern Nîmes) was the ancient capital of the Volcae Arecomici and later a Roman colony.

Bibliographic Citation:
- BAtlas 15 C2 Nemausus
- Lassalle 1990
- Mela 2.75.3
- PECS (Perseus), NEMAUSUS (Nîmes) Gard, France
- Plin. HN 3.37.2
- RFO 171
- Rivet 1988, 162-65
- Strab. 4.1.12
- TP 1B4 (Talbert 782)
- Wikipedia, Nîmes

Contributors:
- DARMC
- Jahlfeldt
- Jbecker
- Sgillies
- Thomase
- Vfiof/59162760

Coverage:
- Nîmes

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