



D.5.3 – Final Report on the Assessment of Online Access

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Executive Summary

This report is a final assessment of online access to the services offered through the ARIADNE Infrastructure. It follows on from the previous initial assessment made in D5.2 Assessment of Online Access at M24. At that time, a number of services were made available through the ARIADNE website from three providers. During the second half of the project (Period 2 M25-M47), some additional services were added, and then in M39, the ARIADNE Portal was launched at the CAA Conference (at the end of March 2016). The Portal home page replaced the Services page in the ARIADNE website.

The assessment is based on an analysis of the web statistics for the websites in question (the main ARIADNE website, the Portal and the three online transnational access data providers). It takes into account the impact of the dissemination (and other) activities of the project, which may contribute to the number of people who both visit the services to see what is available and who are, or become, end users (i.e. repeat visitors).

The ARIADNE Portal contains over 1.9 million records, with content from 16 different partners in 15 countries, and also provides access to a number of external services for archaeologists. The Portal allows users to search through the records through standard text search, and three other methods which are based on When (a timeline that allows a specific date period to be selected), Where (a map which can be zoomed used to select a specific geographic area) and What (a Wordle from which users select terms).

ARIADNE Infrastructure has provided access to and promoted four online services from M1 which are managed by three of the partners, these being:

1. The Archaeology Data Service (ADS) is based in the UK and provides online access to federated queries for archaeological data from a variety of data providers via ARCHSEARCH, and direct access to archaeological datasets through the ARCHIVES sections of the ADS website. The ADS also provides extensive resources for working with archaeological data via its Guides to Good Practice, and access to over 30,000 unpublished archaeological reports from its Grey Literature Library.
2. AIAC, the International Association for Classical Archaeology based in Rome, provides Fasti Online, an online database of archaeological excavations undertaken across the Classical World.
3. DAI and the Institute of Classical Archaeology in Cologne, Germany, provide ARACHNE, which is a free object database of more than one million images of finds, architecture and excavations with meta information as well as digitised historical literature.

ZENON is the basic online card index of all institutions of DAI, providing information about all books available in the DAI libraries worldwide and access to several digitised and digital monographs and journals.

At M39, two further services were added:

- The ARIADNE Visual Media Service provides easy publication and presentation on the web of complex visual media assets.
- The Landscape Services for ARIADNE are a set of responsive web services that include large terrain datasets generation, 3D landscape composing and 3D model processing.

The services have been analysed over both periods with overviews provided of their visitor rates and sources, their geographic location and browser languages, and referrals (including those from ARIADNE). The date ranges of peaks in traffic are compared to key ARIADNE activities such as workshops and training events. The ARIADNE Portal also includes an end user survey, which was conducted towards the end of 2016 to gain feedback on the search methods offered, ease of use and overall usefulness for its users.

The analysis has shown that ARIADNE project events had a noticeable impact on the ARIADNE website visitor rates, and consequently on the data services. Social media is playing an increasingly influential role in disseminating information, especially Facebook, which is the favoured channel for bringing visitors to both ARIADNE and the online data services. Twitter is also effective for ARIADNE and ADS employ several social media channels, which have a large following. Wikipedia is also an important source of referrals for Fasti Online, less so for ARACHNE. However, what is noticeable is the number of academic institutions and archaeology-related websites (“partners”) that provide referrals to ARACHNE.

The online Stakeholder Survey during Period 1 was widely promoted on Twitter and other social media channels, and this also had a very positive effect for the project website during the first period. Likewise, traffic to the online services can be traced back to ARIADNE – workshops and training often coincided with peaks in traffic on the services websites. Two training workshops in January 2016 and the launch of the Portal at the end of March 2016 appear to have increased traffic to the ARIADNE website and the ADS Portal.

The services offered by ARIADNE, including the Portal, over the two-year period have had 44,946 unique visitors (19,886 once the bounce rate of 55% has been taken into account). The Where (map) and When (timeline) search methods were well received by the end users who participated in the survey. The convenience of having access to several sources of content was much appreciated. Some of the survey participants suggested that the text search could be improved – there were mixed responses regarding the rating of the search results, but on the whole the reaction was favourable. One of the barriers that the Portal appears to have overcome is language – the three original services have user profiles, which reflect the native language of the content and hosting site. Although the Portal also had a majority of English speakers, most of the users from the 2016 survey agreed that accessing content in other languages was easy. Therefore, the Portal can introduce a much larger user base to the content from the services, regardless of the language of the content.

1 Introduction and Objectives

This report (D5.3) is a final assessment of online access to the services offered through the ARIADNE Infrastructure. It follows on from the previous initial assessment made in D5.2 Assessment of Online Access at M24. These assessments are based on the web statistics provided by the externally hosted services (partners in charge of WP11) and those for the ARIADNE Services page (which provided links to the external services) and for the Portal with some additional independent evaluation obtained from an end user survey carried out in 2016. Note that the bounce rate was taken into account for some of the figures arising from the web statistics in this report. The bounce rate is the % of visitors who arrive on a page and then leave without interacting with that page, presumably because they are not interested. Hence, a more accurate figure for visitors who engage with the websites can be obtained, these being referred to as “engaged” users. For comparison of more general trends, such as geographical locations and looking at the impact of ARIADNE events on visitor numbers, the bounce rate can be ignored as it has little impact on the overall trend.

During the first 24 months, a number of online services provided by ARIADNE partners were made available through the ARIADNE website (while the ARIADNE Portal was under construction). The Portal has been up and running since M39 and now provides access to 1.9 million records including content from ADS, FASTI, ARACHNE and collections from the other ARIADNE partners. Consequently, there is a baseline assessment for the three external services (ADS, AIAC and Fasti Online) and a direct comparison between the two time periods (i.e. M1-M24 and M25-M48) can be made by evaluating the web statistics for each of these services. The Portal can be evaluated over the last ten months (M39–M48) and an end-user survey has been conducted as part of the assessment. In order to measure the impact of the Portal on the three original services, the web statistics have to be compared from M25-M38 against M39-M48. Finally, an overall evaluation is provided for the online services for the whole four-year period.

The analysis of the web statistics takes into account the impact of the dissemination (and other) activities of the project which can impact on the number of people who both visit the services to see what is available, and who are (or become) end users (i.e. repeat visitors). Google Analytics is the online statistical tracking service used in all cases, with the exception of ADS who use Piwik, a similar application. There is no separate data available for the Zenon service so this has not been analysed, although links to and from this service appear in the website data for the other services.

The services offered by ARIADNE, including the Portal, over the two-year period have had 44,946 unique visitors (19,886 once the bounce rate of 55% has been taken into account).

The ARIADNE Infrastructure promoted four online services during the first 24 month period, which are managed by three of the partners, these being:

1. The Archaeology Data Service (ADS) is based in the UK and provides online access to federated queries for archaeological data from a variety of data providers via ARCHSEARCH, and direct access to archaeological datasets through the ARCHIVES sections of the ADS website. The ADS also provides extensive resources for working

with archaeological data via its Guides to Good Practice, and access to over 30,000 unpublished archaeological reports from its Grey Literature Library.

2. AIAC, the International Association for Classical Archaeology based in Rome, provides Fasti Online, an online database of archaeological excavations undertaken across the Classical World.
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ZENON is the basic online card index of all institutions of DAI, providing information about all books available in the DAI libraries worldwide and access to several digitized and digital monographs and journals.

A portal page on the ARIADNE website provided links and descriptions to all these services, along with training materials for each. This page was added in early June 2014.

In January 2015, the first ARIADNE online services became available – the Visual Media Service and Landscape Services. Links were added to these services from the Services section of the ARIADNE website. In addition to these services, two online services offered by KNAW-DANS were also linked to:

- KNAW-DANS Digital Collaboratory for Cultural Dendrochronology, and
- The DANS e-depot repository service.

The ARIADNE Portal was launched at the very end of March 2016 (at CAA in Oslo).

The ARIADNE Portal contains over 1.9 million records consisting of content from 16 different partners in 15 countries and also provides access to a number of external services for archaeologists. The Portal allows users to search through the records through standard text search and three other methods which are based on When (a timeline that allows a specific date period to be selected), Where (a map which can be zoomed in on to select a specific geographic area) and What (a Wordle from which users select terms).

The ARIADNE Portal provides the main point of access for searching and browsing datasets and new services for processing and publishing archaeological datasets online.

Specific events (See Appendix A) have been held to promote these services and the Portal to a wider archaeological audience by ARIADNE.

Consequently, whilst some of the (bigger) events can be aligned to specific peaks in user traffic, overall, ARIADNE has certainly introduced several new users to the online services through its training and dissemination activities although the exact numbers can't be verified.

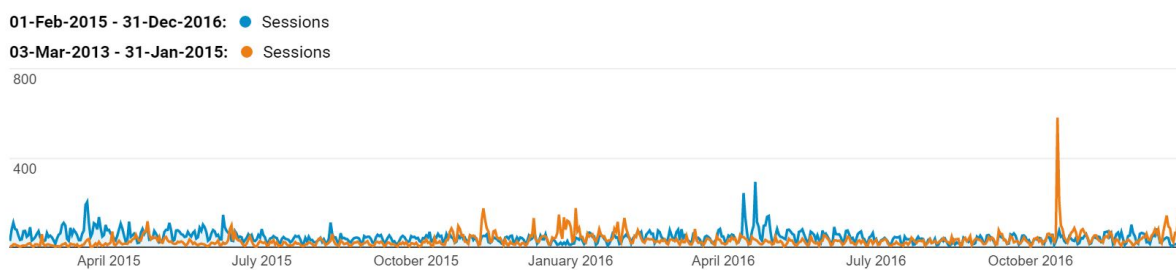
2 ARIADNE Website Statistics

The impact of ARIADNE on the use of the online services can be assessed in a number of ways. Statistics such as the visitor rates on and just after key events, and referrers and page access numbers for relevant pages on the ARIADNE website can provide an indication of the project's impact. Similar statistics from the individual web services can also contribute to the overall picture, along with an inspection of the dissemination activities happening during the same period in order to evaluate their impact on user numbers. Referrals can indicate where traffic coming to the services originates, and the type of referral can be meaningful, as social media plays an increasingly influential role. ARIADNE has a pan-European and international reach.

2.1 Visitor rates to the ARIADNE website

The statistics for the ARIADNE website are tracked using Google Analytics.

During the second 23 month period, the number of visitors to the ARIADNE website increased by 40%, from 22,622 sessions by 14,667 unique visitors to 31,227 sessions by 19,966 unique visitors. If the bounce rates (approx. 55%) are applied, then the comparative numbers of “engaged” users is 6,501 rising to 8,864, which is a 26.65% increase in user numbers.



There are two noticeable peaks, the first being 18th March 2015 and following days and the second from mid-April to the end of April 2016. For the former increase in website activity, this may be due to ADS presenting ARIADNE at the annual Europae Archaeologiae Consilium (EAC) meeting held in Lisbon, Portugal on the 18th-20th April 2015. The second set of peaks may possibly be attributed to post-CAA conference interest being shown in ARIADNE following the launch of the Portal at the end of March.

2.2 Sources

Regarding where visitors come from, more originated from search engines during the second period (up by 14%), 21% (down by 2%) from referrers and 26% (an increase of 4%) went to the website directly (e.g. via a bookmark or possibly typed in URL). Social media accounts for over 8%.

Source	Sessions		New sessions		New users	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47
Organic Search	6,775 (30%)	13,885 (44%)	65%	68%	4,412 (30%)	9,383 (47%)
Referral	5,109 (23%)	6,620 (21%)	73%	55%	3,716 (25%)	3,627 (18%)
Direct	5,085 (22%)	8,059 (26%)	67%	68%	3,367 (23%)	5,508 (28%)
(not set)*	3,545 (16%)	0	55%	0%	1,944 (13%)	0
Social	1,910 (8%)	2,657 (9%)	62%	54%	1,183 (8%)	1,447 (7%)
Email	198 (1%)	6	8%	17%	15 (0.1%)	1

Referrals and social media account for around 30% of all traffic to the ARIADNE website.

*No information received regarding the source.

2.3 Online Services page access figures

During the first period, the ARIADNE web statistics showed that after the Home page and News section, the Services page was the next most popular destination with nearly 5% of all traffic to this page. The Services page was replaced with the Portal page around half way through period 2 so, to make a direct comparison, the page access figures of both pages must be added together. Hence, during the second period, there were 2,586 accesses to the Services page and 2,017 to the Portal page resulting in 4,603 accesses making the online services the fourth most popular destination after the Home page, the About page and the Resources page during period 2.

2.4 Referrals

The Top 10 Referrals were:

Referrer	Sessions		% New Sessions		New Users	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47
Twitter (t.co)	601	1,180	52.25%	34.83%	314	411
Facebook ¹	1,239	1125	69.49%	74.13%	861	834
ARIADNE Portal ²	0	934	0.00%	13.17%	0	123

ADS ³	663	339	80.24%	75.52%	532	256
fastionline.org	230	270	67.83%	59.26%	156	160
ariadne- infrastructure.eu	55	185	1.82%	1.08%	1	2
summerschool.dcu.gr	0	185	0.00%	32.97%	0	61
archeomatica.it	142	172	78.17%	62.79%	111	108
dans.knaw.nl	117	155	49.57%	67.10%	58	104
orea.oeaw.ac.at	118	147	76.27%	76.19%	90	112

Note:

- 1 - Facebook = facebook.com, m.facebook.com and l.facebook.com
- 2 - ARIADNE Portal = portal.ariadne-infrastructure.eu and ariadne-portal.dcu.gr
- 3 - ADS = archaeologydataservice.ac.uk and york.ac.uk











The referrals indicate the power role of social media in disseminating information of interest to their communities with Facebook and Twitter being the top two referrers for both periods (Facebook dominating the first period and then Twitter overtaking during period 2). In third place is the ARIADNE Portal followed by the websites of two of the online ARIADNE service providers (ADS and Fasti Online), the website of the summer school which provided training on the Portal services and then the websites of three of the partners (DANS also being an online service provider). These referrals confirm the popularity of the online services with end users coming to the ARIADNE website.

2.5 User location and their browser language

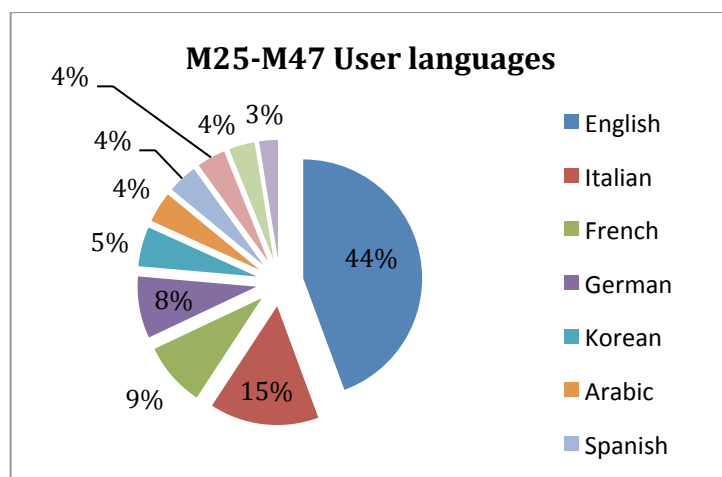
There has also been a small change in the geographical distribution of the website end users. Europe is still the main location of ARIADNE website users at but the share has declined from 82% to 75% with a further 10% from North America (up by 1%). The Asian end user share has increased by 10% overall (with South Korea making up 25% of end users from Asia).

Previously, the top 10 locations accounted for 71% of unique visitors – this dropped to 63% in the second period as the geographical spread of the end users has widened.

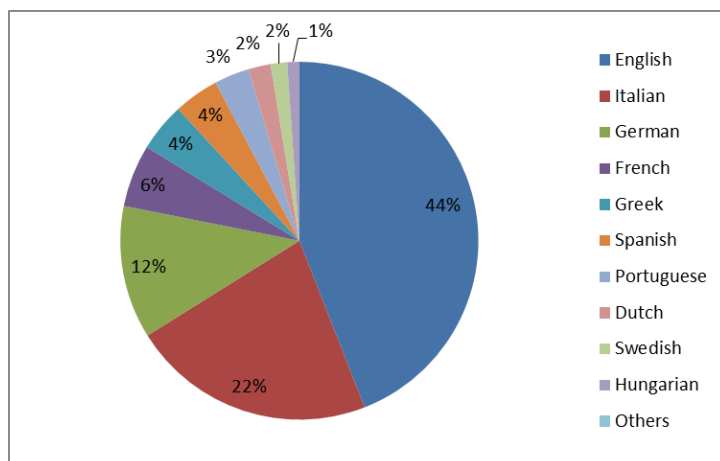
Italy made up 20% of end users during M1-M24 and this has dropped to 13%. Overall, the main service providers (and project co-ordinator) are based in Italy, Germany and the UK, so is to be expected that these would appear in the top 10 locations. The combined share has decreased from 38% to 28% of users. As well as increased numbers of users from France and South Korea, end users from Central and Eastern Europe (Hungary, Poland, Romania, Slovenia and Bulgaria) have also grown in numbers.

End User Country	Unique Visitors		Percentage of Unique Visitors		Overall share	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M47	M1-M47
 Italy	2,993	2,674	20.40%	13.39%	16.36%	↓
 United Kingdom	1,373	1,667	9.36%	8.35%	8.78%	↔
 Germany	1,223	1,262	8.34%	6.32%	7.17%	↓
 United States	1,019	1,767	6.95%	8.85%	8.04%	↔
 Greece	949	1,080	6.47%	5.41%	5.86%	↓
 France	740	1,383	5.04%	8.35%	6.13%	↑
 Netherlands	516	651	3.52%	3.26%	3.37%	↔
 Spain	459	628	3.13%	3.15%	3.14%	↔
 Austria	451	387	3.07%	1.94%	2.42%	↓
 South Korea	36	966	< 1%	4.34%	2.89%	↑
Others	4,912	7,501	33.48%	36.64%	35.84%	↑

A comparison of the top 10 browser language of the ARIADNE website users over the two periods reveal that English remains dominant at 44% for all users for both periods and that the other major languages of German, French and Italian make up the next most popular languages (76% of users) which is down from 84% from the first period. During the second period, the site gained a number of new users Arabic and Korean speakers (9%) and then the smaller proportions come from Spain, Portugal and Greece with several Eastern European languages (0.5 – 1%) after these.



M1 – M24 ARIADNE Website user browser language



2.6 Outgoing Links

Statistics for outgoing links were only available since M21, i.e. October 2014, (when these were implemented in Google Analytics) for the first period. 130 people linked through from the Online Services page to the individual services. For the second period, the figures are:

Rank	Event Description	Total Events	Unique Events
1	ARIADNE Portal	949 (11.63%)	854 (11.61%)
2	ADS Portal	130 (1.59%)	123 (1.67%)
3	DAI Online services	120 (1.47%)	115 (1.56%)
4	Visual Media Service	83 (1.02%)	77 (1.05%)
5	Fasti Online	54 (0.66%)	52 (0.71%)
	Total	1,336	1,221

During the second period, these numbers grew to 1,221. Note that the Portal comprises all the services (April [M39] onwards) whilst the individual service URLs were available on the Services page before M39. Use of the Portal indicates a large increase of end users accessing the online services, up by over 10 times as many.

It is worth noting that, since the launch of the ARIADNE portal, the statistics show there has been a decline in visits to the ARIADNE project website, which is probably a direct result of the launch.

3 ADS Services

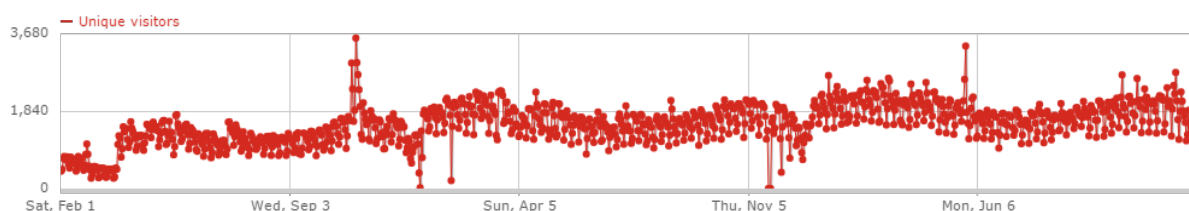
The Archaeology Data Service (ADS) is based in the UK and supports research, learning and teaching with freely available, high quality and dependable digital resources in English, derived from UK archaeology, or UK-based (or funded) archaeology abroad. ADS provides online access to federated queries for archaeological data from a variety of data providers via ARCHSEARCH, and direct access to archaeological datasets, through the ARCHIVES sections of the ADS website, and through two specialised websites: "England's Rock Art" and "Image bank". As part of the ARENA2 project, ADS provides access to the Archaeological Records of Europe portal prototype and also hosts the Transatlantic Archaeology Gateway developed as part of the TAG project. The ADS also provides extensive resources for working with archaeological data via its Guides to Good Practice, and access to over 30,000 unpublished archaeological reports from its Grey Literature Library. The ADS Portal was launched in 1996 and has seen a gradual increase in users year on year. The ADS uses Piwik Web Analytics to collate and study their website metrics.

3.1 Visitor rates to the ADS services

During the 35 month period from 1st February 2014 to 31st December 2016 ADS had **1,776,563 unique visitors** making **572,355 direct downloads** and **7,774,717 page views**.

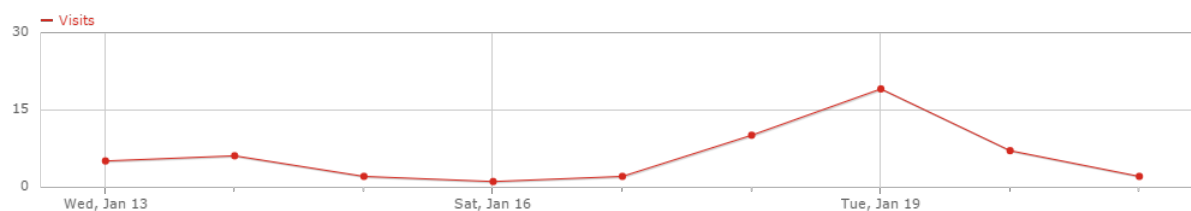
Comparing number for period 1 (M1-M24) to period 2 (M25-M47):

- Visitor numbers increased from 693,622 to 1,082,941 (up by 56%)
- Direct downloads decreased from 324,492 to 247,863 (down 24%)
- Page views decreased from 4,244,893 to 352824 (down 17%)



Looking at the unique visitors to the ADS website (1st February 2014 – 31st December 2016). There was a large peak in early November, which coincides with a database change that may have led to the website being re-indexed.

Close analysis of the ADS website metrics on and around the three specific ARIADNE events listed above show an impact on the use of the ADS website. For example an increase in traffic to the ADS website can be seen during ARIADNE workshop held in Vienna in January 2016. A similar traffic increase was noted for the previous 24-month period for CAA2014 held in Paris (22nd – 25th April 2014). There was a noticeable peak of visits to the ADS website by users located in Austria during the ARIADNE workshop in Vienna.



3.2 Social Media

The ADS routinely advertises ARIADNE events and activities on ADS social media accounts, and re-tweets posts from ARIADNE. ARIADNE related posts on ADS's Facebook page (1,946 followers), have an average of **215 views** and **6 likes/shares** per post. The announcement of the Ariadne Network Data Management Workshops was the most popular with the post appearing on the feeds of 453 people/Facebook accounts.

3.3 Referrals





Of the 1,776,563 visitors for this period, 1,055,778 (59.4%) came via 'Search Engines', 496,048 (27.9%) via 'Direct Entry' and 224,482 (12.6%) from 'Websites.' During the second period, the top referring websites to ADS were Facebook (10.8%), Wikipedia (5.3%), Twitter (3.6%), Heritage Gateway (3.4%) and Past Horizons (2.7%). This reflects the number of key archaeological sites with Wikipedia entries for which the ADS holds data. It also reflects the active use of both Twitter and Facebook by ADS.







The ARIADNE infrastructures website referred **258 unique visitors** to ADS during the period of review. The ARIADNE Portal, which has only been active since M37, referred **800 unique visitors** to ADS. The ARIADNE referrals are in the 'Websites' category and so make up 0.11% and 0.36% respectively of all website referrals.

3.4 User location and their browser language

83.7% of all ADS visitors during this 48-month time period were located in Europe with 72.4% of all visitors being located in the UK. The proportion of European visitors has actually increased during the second period by 3.4%, as have the number of UK-based users (from 63% to 72%).

Location of unique visitors by country, 1st February 2014 to 31st December 2016

Country	Unique Visitors	% of Unique Visitors
 United Kingdom	1,286,008	72.4%
 United States	163,636	9.2%
 Australia	31,236	1.8%
 Italy	24,815	1.4%

 Canada	23,346	1.3%
 Germany	22,921	1.3%
 France	22,133	1.2%
 Spain	20,114	1.1%
 Netherlands	12,325	0.7%
 Ireland	11,289	0.6%
Others	247,514	14%

English is the browser language used by **89.7%** of unique visitors to the ADS website this is reflected by English speaking countries being high in the top ten of unique visitor locations. This proportion has increased by over 10% but this is also a reflection of the geographical location of the content in the ADS Portal being the UK.

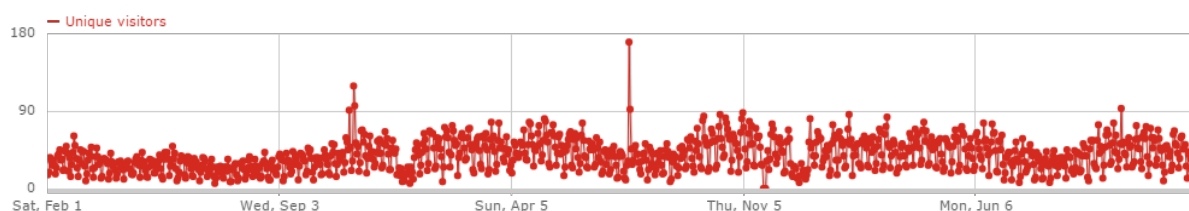
Browser languages used by visitors, 1st February 2014 to 31st December 2016

Browser Language	Unique Visitors	% of Unique Visitors	M1-M24 Unique Visitors
English	1,592,697	89.7%	79%
Italian	24,413	1.4%	2%
German	23,308	1.3%	2%
Spanish	22,585	1.3%	1%
French	22,218	1.3%	1%
Dutch	12,603	0.7%	1%
Russian	9,659	0.5%	1%
Portuguese	8,343	0.5%	1%
Polish	7,948	0.4%	1%
Other	52,781	3%	12%

A comparison with the previous period indicates that the proportion of English language based browsers has increased by around 9% but there are also more “Other” languages in use (also up by 9%).

Guides to Good Practice

The Guides to Good practice have had 44,878 unique visitors, 119,439 unique page views and the average visit duration is 2 minutes and 26 seconds. During the second period, the top referring websites were the ADS (46.9%), t-DAR and Digital Antiquity (11.7%), JISC Digital Media (3.6%) CAST, University of Arkansas (Geospatial Modelling & Visualization) (2.7%), IANUS (1.8%), Forbes article on 3D scanning (1.7%). ARIADNE represents 1.5% of website referrals to the Guides to Good Practice. The graph below shows the unique visitors to the Guides to Good Practice website from 1st of February 2014 – 31st December 2016.

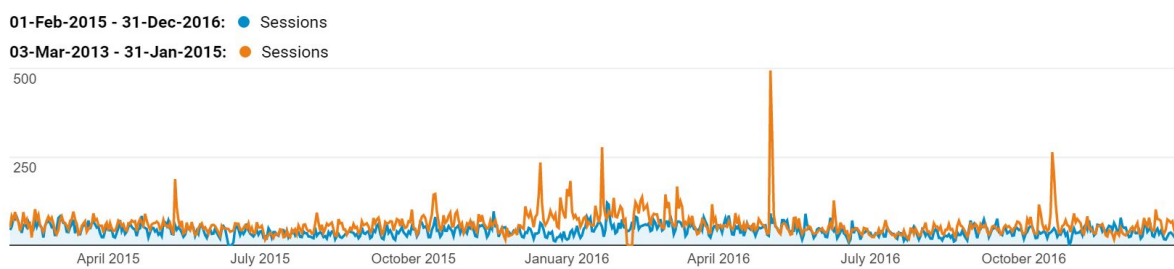


The ARIADNE case study for the Guides to Good Practice; ‘Selection and Retention of Files in Big Data Collections: The Example of the Pergamum Excavation of the DAI Istanbul’ has had **348 unique page views**, with an average time spent per visit on the page of **1 minute 13 seconds** which is very favourable comparable to other Guides to Good practice case studies. The Dendrochronology Guide to Good Practice created in association with ARIADNE has had **1,325 unique page views** (50 of which were to the standalone case study, *The Dendrochronology of the Early Medieval Emporium Dorestad*, added in June 2016). The large peak in the user statistics in Figure 3 correlates to the 22 July 2015 release of the Dendrochronology Guide. The 3D Models Guide to Good Practice, created in association with ARIADNE, has had **409 unique page views** since December 2016, a relatively high number for one month, which includes a holiday period.

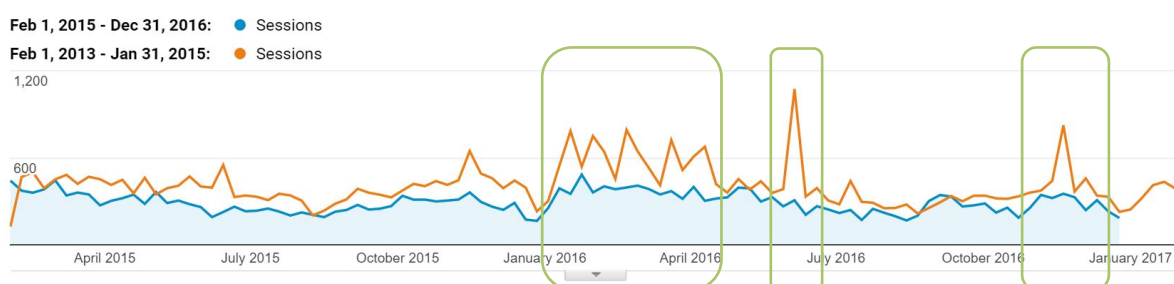
4 Fasti Online

AIAC, the International Association for Classical Archaeology based in Rome, provides Fasti Online, an online database of archaeological excavations undertaken across the Classical World since the year 2000, including some 12,000 excavation reports and site summaries across the Mediterranean. The interface and records are in English and the content is in the local language. Fasti Online was launched in early 2009.

4.1 Visitor rates to the Fasti website



Visitor rates to Fasti Online fell by 31.6% over the last two years from 28,109 users to 19,227. The average number of users per month using the site was 1,602 down from 2,342. However, the average number of pages viewed and session duration have increased along with the bounce rate dropping by 30% which indicates that a higher proportion of visitors are intentionally visiting and using the site (rather than landing and immediately leaving). If the numbers of engaged users is used instead, then a different picture emerges. For period 1, there were 10,617 engaged users, which increased slightly to 10,949 during period 2. Closer inspection of the visitor rates from January to December (M35 to M47) show no drop off, i.e. having content available in the ARIADNE Portal has had no negative impact. In fact, Fast Online has been gaining more “engaged” end users who look at more content on each of their visits. Over both periods, the returning visitor rate is 35% (so 65% are new visitors).



The most discernible increase in user activity was between January 2014 and April 2014 with a definite peak in the first week of June 2014 and a second peak around mid-November 2014. These peaks coincide with CAA 2014 held at the end of April but there are no other specific events that can be identified that may explain the increase of activity between January and June. However, the Italian Infrastructure event in Rome, which received wide media coverage, could have contributed to the surge of traffic to Fasti Online at this time.

Overall, the visitor rates have been far more uniform over period 2 compared to the previous (M1-M24) period.

4.2 Visitor sources

Source	Sessions		New sessions		New users	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47
Organic Search	12,149 (28.15%)	13,024 (44.50%)	54.21%	56.99%	6,586 (23.43%)	7,422 (38.60%)
Referral	5,647 (13.08%)	5,123 (17.50%)	81.65%	80.48%	4,611 (16.40%)	4,123 (21.44%)
Direct	11,468 (26.57%)	10,062 (34.38%)	67.27%	68.30%	7,714 (27.44%)	6,872 (35.74%)
(not set)*	10,274 (23.81%)	0	60.62%	0%	6,228 (22.16%)	0%
Social	3,619 (8.39%)	1,057 (3.61%)	82.07%	77%	2,970 (10.57%)	810 (4.21%)

Because of the 24% of unclassified sources for Period 1, it's not possible to make direct comparisons of the sources between the two periods except to observe that the numbers originating from Social media sources have dropped significantly and more visitors are probably using search engines to go to the Fasti Online website.

4.3 Referrals

The top ten referrals are ordered by the number of new users from both periods.

Referrer	Sessions		% New Sessions		New Users	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47
Facebook	3,360	664	81.90%	75.45%	2,752	501
Wikipedia	1,839	504	91.68%	91.67%	1,686	462
aiac.org	892	475	61.88%	64.42%	552	306
iccrom.org	0	533	0.00%	75.23%	0	401
inasa-roma.it	149	154	81.21%	87.66%	121	135
ostia-antica.org	161	140	80.75%	86.43%	130	121
ariadne-infrastructure.eu	175	75	82.86%	82.67%	145	62
min-kulture.hr	132	86	91.67%	91.86%	121	79

Twitter (t.co)	128	127	71.88%	65.35%	92	83
sovraintendenzaroma.it	58	77	93.10%	93.51%	54	72

Note:











1 - Facebook = facebook.com, m.facebook.com and l.facebook.com

2 - Wikipedia = en.wikipedia.org and en.m.wikipedia.org

Facebook and Wikipedia dominate the referrals and the ARIADNE website is the 7th most popular source, providing 62 new users in Period 2. If the bounce rate is taken into account, this reduces users down to 43. There is one referral from the Portal so the figure is 44 for Period 2. However, it appears that these referrals are for the direct link to Fast Online as a service only and ignore any linking through from the content within the Portal. There are over 6,000 records in the Portal with a direct link through to the Fast Online website.

4.4 User location and their browser language

Italy is the main geographical location of Fasti Online users, varying little between both periods at around 48%. The US makes up 11%-12% and the UK 5%-6% respectively over the two periods. Very little variation is to be seen over the other top 10 locations as well.

	Unique Visitors		% All Unique Visitors	
Country	M1-M24	M25-M47	M1-M24	M25-M47
 Italy	13,661	9,165	48.38%	47.67%
 United States	3,165	2,338	11.26%	12.16%
 United Kingdom	1,376	1,145	4.90%	5.96%
 Spain	1,630	881	5.87%	4.58%
 France	742	550	2.64%	2.86%
 Germany	774	604	2.75%	3.14%
 Canada	418	313	1.51%	1.63%
 Brazil	319	308	1.18%	1.60%
 Australia	385	221	1.37%	1.15%
 Netherlands	283	249	1.04%	1.30%
Other	2,929	3,453	19.10%	17.96%

Italian continues to be the most widely used language followed by English and then Spanish. There has been relatively little change in the distribution of the languages used by the end users of Fasti Online.

Browser Language	Unique Visitors		Percentage of Unique Visitors	
	M1-M24	M25-M47	M1-M24	M25-M47
Italian	13,119	8,842	46.67%	45.99%
English	8,311	5,423	29.57%	28.21%
Spanish	1,783	978	6.34%	5.09%
French	961	708	3.42%	3.68%
German	828	636	2.95%	3.31%
Portuguese	320	352	1.14%	1.83%
Polish	172	76	0.61%	1.54%
Dutch	182	229	0.65%	1.19%
Russian	357	106	1.27%	0.55%
Bulgarian	185	58	0.66%	0.30%
Other	1,891	1,598	6.73%	8.31%

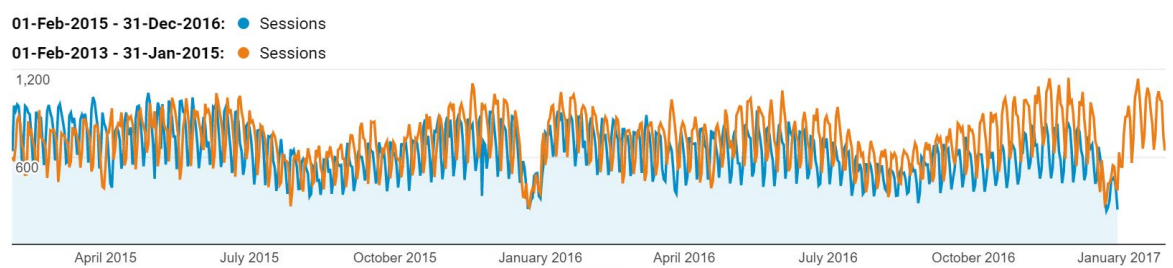
5 The ARACHNE Online Service

DAI and the Institute of Classical Archaeology in Cologne, Germany, provide ARACHNE, which is a free object database of more than one million images of finds, architecture and excavations with meta information as well as digitised historical literature. The ARACHNE interface is in English (some of the context help is available in German as well) and the record metadata may be in either one of these two languages, or both. Since the 15th December, ARACHNE has a new interface that can be accessed via <http://arachne.dainst.org>). Currently this is a beta version and ARACHNE 3.9 is still the main access point for external visitors, but it can be linked to from the main page.

ZENON is the basic online card index of all institutions within the DAI. It provides central information about all books available in the DAI libraries worldwide, and access to several digitized and digital monographs and journals.

The ARACHNE Online service was first available from late December 2007. The number of users increased steadily until by 2014, the average number of users per month was just under 12,000. At present, the original website is still the main source for Arachne although a Beta version 4 was launched October 2016 and is being validated.

5.1 Visitor rates to the ARACHNE website



Visitor rates to the Arachne website have dropped over the two 24 month periods by 14%, the average monthly being 10,102 for the second period. During Period 1, there were 270,263 unique visitors (140,375 engaged users) and in period 2, there were 232,535 unique visitors (121,149 engaged users). The pattern of usage is fairly similar over the two periods although higher during November-December 2014 and January 2015.

5.2 Visitor sources

Source	Sessions		New users		Share of traffic	
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47
Search engines	125,550	268,970	60,215	117,061	11.71%	25.68%

Direct	93,928	118,525	62,593	77,035	12.17%	16.90%
Edu/partners Links	14,163	31,954	6,867	14,244	1.34%	3.13%
Referral	45,085	19,004	25,382	9,864	4.93%	2.16%
Wikipedia Links	8,691	9,168	5,941	6,240	1.15%	1.37%
Social	7,332	7,268	3,336	4,246	0.65%	0.93%
Organic Search ¹	97,939	878	45,902	413	8.92%	0.09%
(not set)	121,691	0	59,717	0	11.61%	0.00%

As 11.6% of the visitor sources were not set for the first period, this makes a direct comparison difficult between the two periods. However, it can be inferred by looking at the % change between the two periods, that use of Edu/partner links and Search engines by end users have increased significantly, Direct by a smaller amount whilst Organic search has dropped but this traffic has most likely shifted into the Search engine category.

5.3 Referrals

The top 12 referrals (63%) in order of most new users over M1-M47 period:

Source	Sessions		% New Sessions		New Users		
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47	M1-M48 %
Wikipedia	19,255	7,907	69.24%	67.93%	13,332	5,371	17.91%
cil.bbaw.de	19,838	16,369	43.26%	43.88%	8,582	7,182	15.10%
Google	16,768	6,356	59.14%	63.22%	9,916	4,018	13.34%
images.google.de	2	6,631	100.00%	70.00%	2	4,642	4.45%
smb.museum	3,301	3,580	68.52%	66.28%	2,262	2,373	4.44%
Facebook	3,887	4,373	55.93%	50.81%	2,174	2,222	4.21%
pompeiiinpictures.com	1,107	1,160	60.07%	54.91%	665	637	1.25%
aldai.ub.hu-berlin.de	2,690	3,071	22.08%	20.16%	594	619	1.16%
uni-heidelberg.de	1,587	2,022	21.05%	19.09%	334	386	0.69%
zenon.dainst.org	227	1,865	26.43%	25.42%	60	474	0.51%
gazetteer.dainst.org	1,186	1,378	10.29%	19.59%	122	270	0.38%

¹ <https://support.google.com/analytics/answer/2795821?hl=en>











Note:

- 1 - Facebook = facebook.com, m.facebook.com and l.facebook.com
- 2 - Google = google.de and google.fr
- 3 - Wikipedia = de.wikipedia.org, en.wikipedia.org and it.wikipedia.org

Wikipedia is responsible for the highest number of new users (18%) coming to Arachne overall, although the Corpus Inscriptionum Latinarum website hosted by the Berlin-Brandenburgische Akademie de Wissenschaften (BBAW) overtook Wikipedia during the second period. Facebook is the most popular social media channel and there are two other educational establishments plus two image sites as well as two other services offered by DAINST (Zenon and the Gazetteer), which are also featured in the ARIADNE Portal. The ARIADNE website referred 143 users during period 1 and 45 during period 2. There are no referrals from the Portal.

5.4 User Location and their browser language

Europe accounted for around 85% of new users in period 1 which had increased to 90% in period 2. North American users dropped from 8% to 2% over the same periods. Within Europe, ARACHNE users based in Germany have dropped by 20% from 84% to 64%. The high proportion is to be expected with the high numbers of referrals coming from (German) archaeology-related and academic websites. The United Kingdom has significantly increased the number of users over the two periods, from under 1% to just over 25%. New users from Italy have declined from 3% to 2%. These four countries alone make up 84% of all users.

Country	Sessions		% New Sessions		New Users		
	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47	M1-M47
 Germany	1,367	982	86.10%	80.45%	1177	790	65.22%
 United Kingdom	10	315	100.00%	100.00%	10	315	10.78%
 United States	156	31	98.08%	100.00%	153	31	6.10%
 Italy	44	25	86.36%	100.00%	38	25	2.09%
 Austria	40	19	87.50%	100.00%	35	19	1.79%
 Greece	28	15	100.00%	93.33%	28	14	1.39%
 Switzerland	23	8	100.00%	100.00%	23	8	1.03%
 Turkey	18	10	94.44%	100.00%	17	10	0.90%
 Brazil	18	6	100.00%	100.00%	18	6	0.80%
 France	9	14	100.00%	85.71%	9	12	0.70%
Others	195	152	70.77%	92.11%	138	140	9.22%

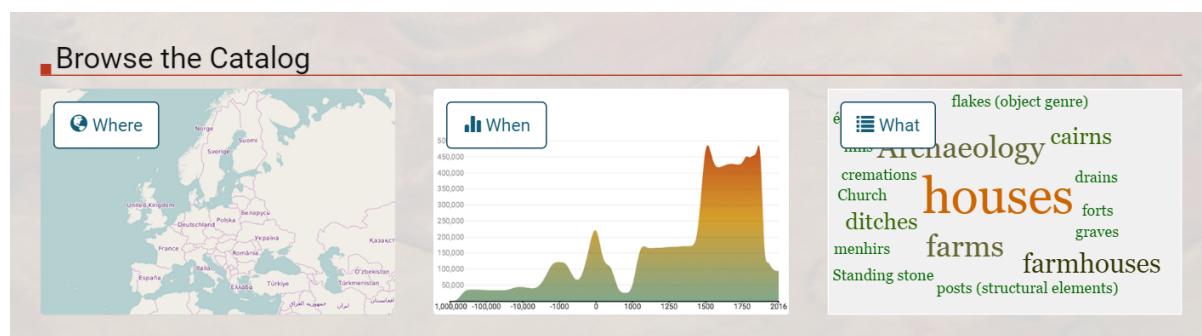
Browser language

The browser languages being used indicate that not all users based in countries such as Germany, the UK and the US are German or English speakers and prefer to set their browser language to their native language (such as Spanish, Chinese and Russian). This is also indicative of users coming from the academic community where researchers tend to move between countries in the earlier stages of their careers.

	Sessions		% New Sessions		New Users		Overall % share
Language	M1-M24	M25-M47	M1-M24	M25-M47	M1-M24	M25-M47	M1-M47
German	1387	916	86.23%	82.86%	1196	759	56.10%
English	299	165	95.32%	73.94%	285	122	11.68%
Italian	39	21	84.62%	90.48%	33	19	1.49%
French	18	16	100.00%	93.75%	18	15	0.95%
Greek	16	11	100.00%	100.00%	16	11	0.77%
Dutch	12	10	100.00%	90.00%	12	9	0.60%
Turkish	10	9	90.00%	100.00%	9	9	0.52%
Russian	5	6	100.00%	100.00%	5	6	0.32%
Chinese	5	3	100.00%	100.00%	5	3	0.23%
Spanish	8	2	75.00%	100.00%	6	2	0.23%

6 The ARIADNE Portal

The ARIADNE Portal was launched at the very end of March 2016 (at CAA in Oslo).



From January to March 2016, partners were testing the portal and providing feedback to help resolve any issues and improve it. After the launch in March, users were invited to give their feedback and a Beta version of Portal was launched in early June at: <http://portal.ariadne-infrastructure.eu/>. Throughout 2016, ARIADNE partners have been preparing datasets for ingestion to the portal; the amount of content increased significantly after August 2016. By December 2016, there were over 1.8 million records, increasing to 1.9m in January 2017. These records comprise content from sixteen partners, the largest contributor being ADS (80%). DAI and Fasti Online each make up 1.3% and 0.3% respectively. The ARIADNE Portal provides the main point of access for searching and browsing datasets and new services for processing and publishing archaeological datasets online.

The ARIADNE Catalogue

The Portal has three routes for browsing the catalogue.

Where

This option displays a map that indicates the geographical location of the subject of the 1.8m records available and the density of records (yellow through to red). The map can be enlarged to enable locations to be narrowed down which in turn reduces the total number of records available. When ready, the option “Display as search result” is used to list all the selected records as a text list. A number of filters can be applied to refine the list: When, Resource type, Native subject, Derived subject, Publisher and Language.

When

This option is a timeline graph from 1 million BC to the present day. As with the map, the graph can be enlarged to reduce the period of interest. There is also an option to list the resources associated with the selected period. A number of filters can be applied to refine the list – there is a wider range for this type of access, e.g. Rights, Dating, Place etc.

What

The What option is an innovative use of a Wordle! Click on the term of interest displayed in the Wordle to list all the related records. The same filters as for When can be used to refine the search results.

The ARIADNE Services

For a more detailed description of the individual services, please refer to D.13.2 Initial services implementation report.

In addition to the data registry, the Portal provides links to two ARIADNE services microsites:

- The ARIADNE Visual Media Service provides easy publication and presentation on the web of complex visual media assets.
- The Landscape Services for ARIADNE are a set of responsive web services that include large terrain datasets generation, 3D landscape composing and 3D model processing.

The portal also includes links to a number of external services including:

- DCCD: Digital Collaboratory for Cultural Dendrochronology.
- IDAI.vocab – the DAI Thesaurus of Archaeological Concepts;
- IDAI.gazetteer – a web service connecting toponyms with coordinates;
- Heritage Data: Linked Data Vocabularies for Cultural Heritage from the UK.
- MeshLab is an open source, portable, and extensible system for the processing and editing of unstructured 3D triangular meshes.
- Thesaurus RA - Strumenti terminologici Scheda RA Reperti Archeologici, curated by ICCU and VAST-LAB.

6.1 Portal Statistics

The portal has been live for months, the first few months being a “beta” phase where data was still being uploaded and end users were testing and providing feedback to the developers. From 1st March 2016, there have been 10,305 visitors to the Portal consisting of 73% new users and 27% returning users.



As might be expected with a new website, the bounce rate is fairly high at 56% but there were 2,128 sessions (16%) lasting more than three minutes. If the bounce rate is taken into account, then there were 4,520 engaged users who have interacted with the Portal.

Sessions















13,425

% of Total: 100.00% (13,425)

Page Views

53,197

% of Total: 100.00% (53,197)

Session Duration	Sessions	Page Views
0-10 seconds	8,321 	9,134 
11-30 seconds	747 	1,980 
31-60 seconds	895 	2,996 
61-180 seconds	1,334 	7,495 
181-600 seconds	1,177 	10,252 
601-1800 seconds	670 	9,766 
1801+ seconds	281 	11,574 

6.2 Sources

Default Channel Grouping	Sessions	% New Sessions	New Users	% New users
Organic Search	8,175	92.12%	7,531	74.39%
Referral	3,061	45.28%	1,386	13.69%
Direct	1,947	54.08%	1,053	10.40%
Social	242	63.22%	153	1.51%
Total	13,425	75.40%	10,123	

The majority of visitors arrived via search engines. Since most of the archaeological community have been informed about the Portal along with a direct URL, it is not surprising to see on closer inspection that many of these sources appear to originate from Share buttons and also have a high bounce rate (74%) – hence this channel is not as effective as it appears (about 19% of visitors do not leave immediately). The other three channels have much lower bounce rates, Referrals being 26% and Direct and Social 42% and 43% respectively.

Around 42% of visitors arriving directly start on the Home page. Visitors coming via Social Media are almost equally split between Twitter and Facebook. The Portal was promoted through Twitter by featuring different searches since its launch (E.g. “Today's @Ariadne_Network portal search & a snap-shot from the Netherlands & north sea [http://portal.ariadne-infrastructure.eu/search?q=*&ghp=6&bbox=1.91162109375,50.830228205617445,8.6407470703125,53.716215632472036 ...](http://portal.ariadne-infrastructure.eu/search?q=*&ghp=6&bbox=1.91162109375,50.830228205617445,8.6407470703125,53.716215632472036...)” tweeted 15th August 2016).

6.3 Referrals

The top 10 sources of referrals (which are most likely to be coming from humans rather than software agents!) are:















Source	Sessions	% New Sessions	New Users	Non-leavers	Bounce Rate
ARIADNE Website	2,467	41.06%	1,013	794	21.61%
Twitter (t.co)	110	79.79%	78	40	51.06%
Facebook ¹	89	82.02%	73	33	55.00%
archeodatabase.hnm.hu	58	39.66%	23	17	24.14%
ads.ahds.ac.uk / archaeologydataservice.ac.uk	43	60.47%	26	15	42.42%
klass-archaeologie.uni- muenchen.de	11	72.73%	8	4	45.45%
digisam.se	7	71.43%	5	4	28.57%
connectingseparated.eu	6	100.00%	6	2	66.67%
outlook.live.com	6	66.67%	4	2	50.00%
lifel hacker.com	12	16.67%	2	2	8.33%
Total	3,303	46.59%	1,539	920	27.40%

1 – Facebook = facebook.com, m.facebook.com and l.facebook.com

The ARIADNE website is the main source of referrals followed by Twitter and Facebook. These are followed by two of the ARIADNE partners, ADS, the Hungarian National Museum/National Heritage Protection Centre and the University of Muenchen.

All recognised “Bots” and referrals with 100% bounce rates were removed from this list.

6.4 User locations and their browser languages

Country	Sessions	% New Sessions	New Users	% Share of All New Users
 United Kingdom	7465	87.86%	6,559	64.79%
 France	1015	52.71%	535	5.28%
 United States	493	88.44%	436	4.31%
 Italy	708	50.14%	355	3.51%
 Netherlands	364	76.65%	279	2.76%
 Germany	315	66.03%	208	2.05%
 Ireland	365	37.81%	138	1.36%
 Australia	139	91.37%	127	1.25%
 Hungary	199	62.81%	125	1.23%
 Spain	157	79.62%	125	1.23%
 Greece	403	22.83%	92	0.91%
 Canada	99	90.91%	90	0.89%
 Sweden	210	41.43%	87	0.86%
 Austria	133	52.63%	70	0.69%
Other 92 locations	1,360	65.96	897	8.85%

Although a high proportion of users are based in the UK (and are also native English speakers), the geographical spread of the Portal end users is mainly European, the international sources being mainly English speaking. Sweden and Hungary appear here – the latter has not appeared in the top 10 user countries for any of the individual services previously discussed.

Browser language

Language	Sessions	% New Sessions	New Users	% Share of all New Users
English	9,309	81.99%	7,632	75.39%
French	1,007	52.33%	527	5.21%
Italian	623	51.36%	320	3.16%
Dutch	291	85.22%	248	2.45%
German	283	66.78%	189	1.87%
Hungarian	190	61.58%	117	1.16%
Spanish	130	76.92%	100	0.99%
Swedish	121	47.93%	58	0.57%
Slovenian	48	75.00%	36	0.36%
Greek	236	11.02%	26	0.26%
Portuguese	35	57.14%	20	0.20%
Bulgarian	92	14.13%	13	0.13%
Other	1,060	78.96%	837	8.27%

With English being the dominant language, the browser languages show a diversity of European languages featuring the main languages in the top five with three Central and East European languages also appearing here.

6.5 Online Services page access figures

The initial set of ARIADNE online services, offered in the framework of the TNA programme, were three data services individually provided by Archaeology Data Service (ADS), ARACHNE (DAI) and Fasti Online (AIAC). In March 2015, two new services were added; the Visual Media and the Landscape services and shortly afterwards, links were also added for the two DANS services. The impact of the Portal can be seen via the following user access figures, which are provided by the individual service websites:

Service	Period M21-M24	Period M25-M38 (14 months)	Period M39-M47 (Portal, 9 months)
Fasti Online	145	144	1
ADS Portal	254	258	800
Arachne / Zenon	143	115	100
Visual Media /Landscape	N/A	2,300*	200
All services	542	517	➤ 1,101

* 2016 figure

As 80% of the content in the Portal is provided by ADS, it is not surprising that the ADS Portal gets the most referrals from the Portal. However, the number of referrals to the Visual Media and Landscape services are low in comparison to those from the Services page on the ARIADNE website and it isn't obvious why this is. When the services were first launched, they were widely disseminated whereas perhaps users of the Portal are more focussed on using the data (i.e. the Portal as a service) than the supporting services.

6.6 Survey of Portal users

A short online survey of users of the Portal was carried out. The aim of the survey was to gain some information about where users were coming to the portal from, and to offer users an opportunity to provide ARIADNE with some feedback about the portal.

The survey included a set of questions about the experience of the end users, how they knew about the portal, the type of content that they were looking for (and which other services they were familiar with using) and included search tasks. The full results of the survey are to be found in Appendix C. In this section, a synopsis is provided of those results along with the analysis and conclusions drawn.

The survey was completed by 16 end users who came from 10 different European countries (4 from France, 3 from UK and 2 from Portugal and one each from other countries). Most of the end users spent between 3 and 10 minutes on the Portal with three staying longer.

Nearly everyone was experienced in using the Internet (just one rated basic). The majority often searched online for archaeology information, only one end user doing this rarely. The most popular type of resource was Sites and monument databases (used by 87.5%) with all the other types being used by at least half. Other online sources of information that might be used were Google (most mentioned), FASTI and ADS and other named services such as JSTOR, Isidore, HAL and other academic databases. One end user mentioned Europeana.

Twelve people had used some of the services as stand alone services. In all, half the people who completed the survey had seen the Portal and used it occasionally before and the other half had not used it prior to the survey. The survey responses showed that people are

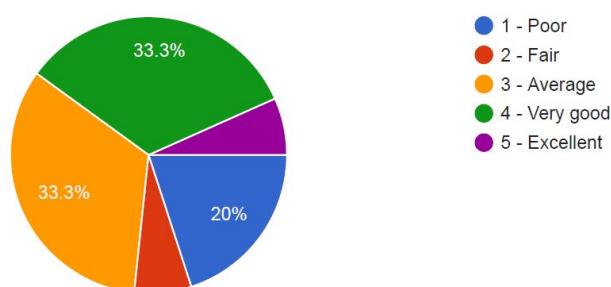
aware the Portal through a variety of sources – conferences, from work and being involved in ARIADNE, via colleagues and through the Internet. Just over half the end users were aware that content from FASTI, ADS and ARACHNE was available in the Portal and 75% agreed that the Portal provided a valuable aggregation of services (the other 25% were “Maybe”).

When commenting on the search task, the end users appeared to have varying levels of success in obtaining results. Four out of seven were successful; others encountered some issues, which appear mainly to not know how to select a specific country in the portal’s filters. The normal method for searching reported was text searches and browsing (Google was mentioned as a popular tool for this).

The end users were asked to rate how successful they considered their search results to be.

12. How successful do you rate your search results? On a scale of 1-5 - Poor, Fair, Average, Very good, Excellent

(15 responses)



As shown by the graphic, one user rated the results as excellent, one third as Very good, another third as Average, one as Fair and three as Poor. Over two thirds of the users can therefore be said to be satisfied with the results. As the survey was conducted whilst data was in the process of being uploaded to the Portal and also corrected, it is possible that the 27% dissatisfied end users may have encountered some problems with the content which has subsequently been addressed. When asked about how easy it was to navigate content in other languages, only two people found this to be difficult with half the users finding it average, and the remaining 35% finding it either easy or very easy.

The end users liked that the Portal offered aggregated data and the When and Map (where) methods of searching. One user disliked that multiple search terms returned separate results (i.e. “OR” rather than “AND”) and another suggested that the indexing could be improved. Suggestions for improvements or changes to the Portal included adding a translation option and three users asked for more (text) search options where specific sub-categories such a place or type of site could be used.

Fifteen of the sixteen end users said they would use the Portal again and one said occasionally. In the final comments, several of the users were highly appreciative of the Portal and wanted to see it developed further.

7 Summary and Conclusions

During the forty-eight months of the project, ARIADNE has provided online access to archaeological datasets. Initially access was provided to services delivered by its partners (the ADS catalogue, FASTI-online, ARACHNE and Zenon). With the launch of the ARIADNE portal, ARIADNE is now offering integrated online access to datasets from 16 partners in 15 countries.

Monitoring of the services confirms significant research interest in archaeological datasets online. The website statistics for the four external services show consistent visitor traffic throughout the four years of the project, while those for the ARIADNE portal show a strong growth in visitor traffic as the available content has increased and new services have been launched.

It is pleasing to report that ARIADNE dissemination activities have had a visible impact on the number of visitors and page views on the online services. Major conferences, project sessions, workshops and other activities all played their part in contributing to use of these online services. The project partners' use of social media has also influenced traffic to the individual websites (seen through referrals from Twitter, Facebook and Wikipedia).

Since the launch of the ARIADNE portal, traffic to online services provided directly by the project has increased (when the combined visitor statistics to the portal, project website, visual media service and landscape services are taken into account). Visitor traffic to the Fasti Online and ARACHNE services appear to have declined slightly, however traffic to the ADS Portal has increased. ADS datasets were among the first to be ingested to the portal, making up 80% of all the content, and as a result ADS received the largest number of visitors (800) referred from the ARIADNE Portal of the three services.

Comparison of the web-site statistics for the online services reveals that the ARIADNE portal and website, and FASTI online have international audiences with visitors from North and South America, Asia, Australia and Africa as well as Europe. ADS and ARACHNE have strong national audiences but their user bases are also international. Analysis of the browser languages chosen by users also underlines the international nature of the audience for online archaeological data.

User feedback on the ARIADNE Portal has been very positive. Throughout 2016 the content of the portal has been growing and users have been discovering the services that are now available. The audience is growing and, as our survey confirmed, the convenience of being about to use the portal to access to several sources of content is appreciated.

8 Appendix A: List of key ARIADNE events

The key events mentioned in D5.2 during M1-M24 were:

- An ARIADNE sponsored free workshop on Data Management Planning and Online Resources for Archaeology held just prior to the start of the European Association of Archaeologists (EAA) annual conference in Plzeň, Czech Republic on the 4th September 2013.
- A full-day session on archaeological infrastructures and services at the 18th Cultural Heritage and New Technologies (CHNT) conference, 11th -13th November 2013 in Vienna.
- CAA (Computer Applications and Quantitative Methods in Archaeology) Conference, Paris 22nd - 25th April 2014 where a specific workshop was held to promote the services of the ARIADNE online transnational access data providers.
- 20th Annual Meeting of the European Association of Archaeologists (EAA2014), Istanbul, Turkey 10th-14th September 2014. A session entitled "Open Access" was held on the 13th September 2014.
- The Research Infrastructures and e-Infrastructures for Cultural Heritage International Conference was organized under the Italian Semester of Presidency of The European Union, 13th-14th November 2014 at Biblioteca Nazionale, Rome.

During the second half of the project, the following events aimed at promoting the ARIADNE services:

- Workshops, Sessions and presentation of papers at CAA, April, 2015, Siena, Italy. The workshop concluded with a demonstration of two services available through the project, the Ariadne Media Service and 3D-HOP, which CNR developed for the streamed display of 3D models and which is also useful for looking at archived 3D data.
- Presentations and poster sessions, Digital Heritage Conference, 28th Sept – 2nd October 2015, Granada, Spain. CNR hosted a tutorial on the use of ARIADNE service 3D-HOP.
- 3D Data: Access and Reuse - presentation on aspects of 3D data access including information on 3DHOP viewer and the Ariadne portal on 11th February 2016 at Llandudno, Wales.
- CAA, Oslo 29th March-2nd April 2016 – the ARIADNE Portal was officially launched at this conference.
- EAA, Vilnius – session "Follow the ARIADNE thread" was held at EAA2016 on Thursday 1st September 2016.
- ARIADNE's final conference on the theme of "Unlocking the potential of digital archaeological data" was held in Florence on the 15th-16th December. The Portal and the services were presented on day 2.

The specific training events organised were:

- Supporting researchers in the use and reuse of archaeological data: following the ARIADNE thread, CAA Siena 2015 (30 March – 3 April 2015)
- Expert Forum, Athens (2 July 2015)
- Digital Heritage 2015, 3DHOP - Presenting Online High-Res 3D Models: a Crash Course (28 September 2015)
- Data Management Workshop, Vienna (19 Jan 2016)
- Data Management Workshop, Ljubljana (21 Jan 2016).

In addition:

- CNR-ITABC ran a Landscape School (8th-11th September 2015) where 21 students used the ARIADNE landscape services to produce and work with a few datasets.

ARIADNE Partners have presented the project at various Workshops and Conferences over the 48 months of the project to promote the Infrastructure and its services.²

² The first 18 months of dissemination is reported in D4.3 Ariadne dissemination report and second period dissemination plan, the 2nd 18 month period in D4.5 and the final period (M37-M48) in D4.7.

9 Appendix B: ARIADNE Portal User Survey - Questionnaire

We're carrying out this short survey of ARIADNE's portal and related online services as part of a wider review. Thanks very much for taking part and for giving us your feedback.

1. What is your native language?
2. How experienced are you in using web search engines? (Select one)
 - Advanced
 - Intermediate
 - Basic
 - Inexperienced
3. How often do you search for archaeology information online?
 - Never
 - Rarely
 - Sometimes
 - Often
4. What type of online resources do you usually use in your research? Tick all that apply:
 - GIS
 - Grey Literature Libraries
 - Artefact databases
 - Sites and monuments databases
 - Scientific databases
 - Online thesauri / vocabularies
 - Other sources
5. Have you used any of the following services? Tick all that apply:
 - Fasti Online
 - ARACHNE
 - Zenon DAI
 - ADS Services
 - DANS
 - ARIADNE portal
 - ARIADNE visual media services
 - ARIADNE landscape services
6. How familiar are you with the ARIADNE portal and services?
 - Unfamiliar
 - Seen but never used
 - Seen and used occasionally
 - Used often
7. How did you discover the ARIADNE portal and services?

8. Were you aware that content from FASTI, ADS & ARACHNE (along with other datasets) are available in the ARIADNE Portal?
 - Yes
 - No
9. Do you think the ARIADNE Portal provides a valuable aggregation of different services?
 - Yes
 - No
 - Maybe

Task: Please go to the ARIADNE portal (<http://portal.ariadne-infrastructure.eu>) and find all information regarding fieldwork on early medieval period sites in Bulgaria (if you try a different search, please make a note in your answer).

10. How would you normally search for this information? E.g. text searches, browsing (following related links), a combination of methods (may depend on the database) or other methods?
11. If you used text search, what terms did you use?
12. How successful do you rate your search results? On a scale of 1-5 - Poor, Fair, Average, Very good, Excellent
13. Please rate each of the search methods used (1-5, Poor, Fair, Average, Very good, Excellent) for:
 - Text search
 - Where (map)
 - When
 - What (Wordle)
14. How long did you spend searching on the portal?
15. How easy did you find navigating content in other languages? (1-5 for Very difficult to very easy).
16. If you didn't use ARIADNE, what other online sources might you use to find this information?
17. What browser do you use?
18. What did you like or dislike about the ARIADNE portal?
19. Was there anything you would change about the ARIADNE portal?
20. Would you be likely to use the ARIADNE Portal in future? Why do you say that?
21. Any other comments?

10 Appendix C: ARIADNE Portal User Survey – Answers

Answers were provided using Google Forms, and begin on the next page.

16 responses



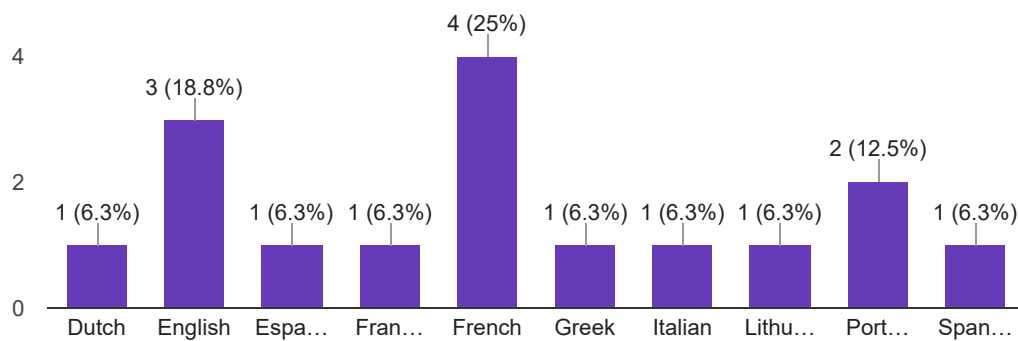
SUMMARY

INDIVIDUAL

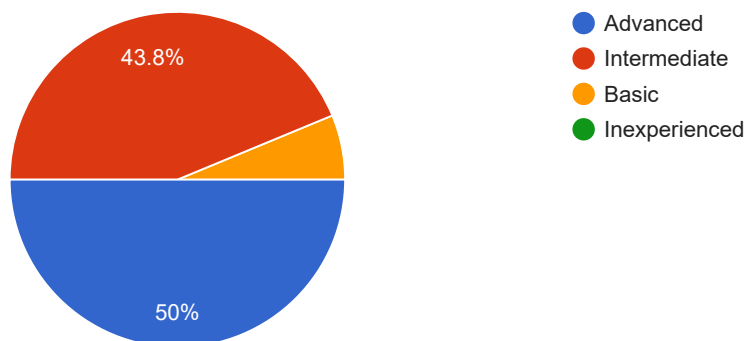
Accepting responses



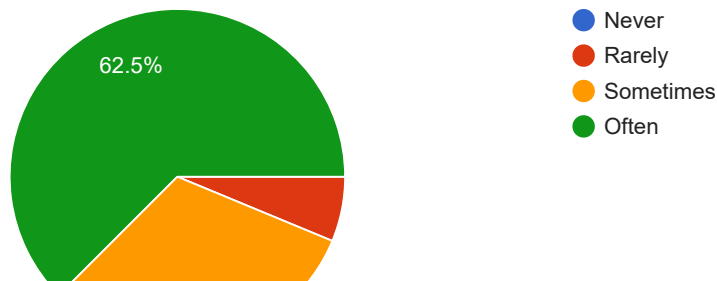
1. What is your native language? (16 responses)



2. How experienced are you in using web search engines? (16 responses)



3. How often do you search for archaeology information online? (16 responses)

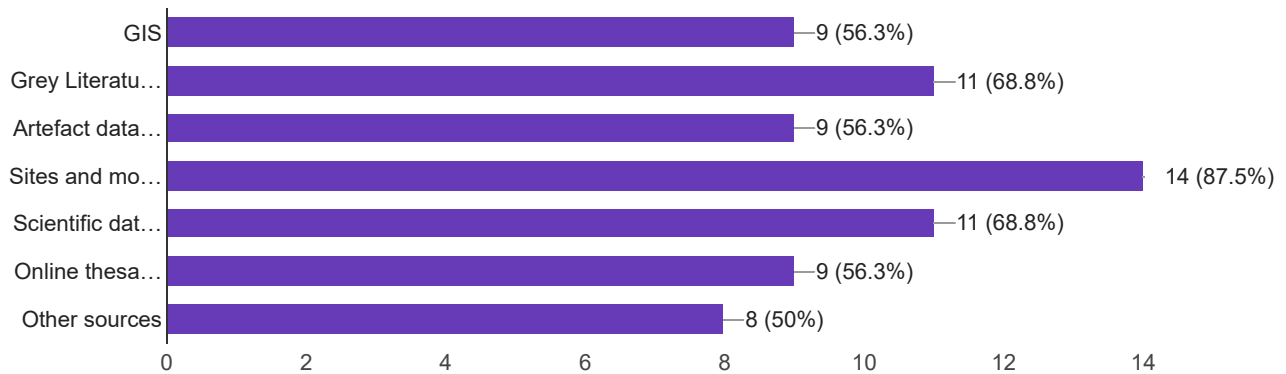


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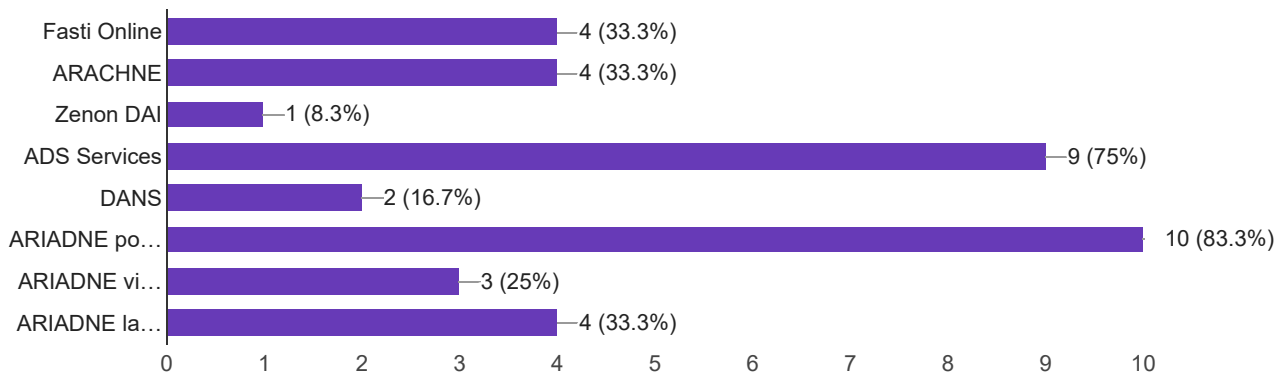
QUESTIONS

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(10 responses)



5. Have you used any of the following services? Tick all that apply: (12 responses)



6. How familiar are you with the ARIADNE portal and services? (16 responses)

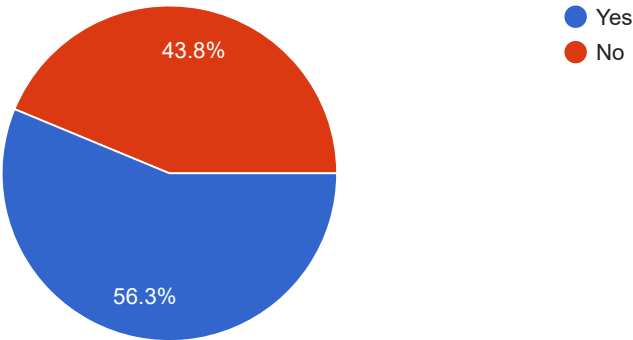


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QUESTIONS RESPONSES 16

- At work
- Work environment
- I'm working at Inrap
- By Inrap
- work (Inrap)
- By my colleague
- project website
- searching the web
- internet
- Aware of project through conference presentations

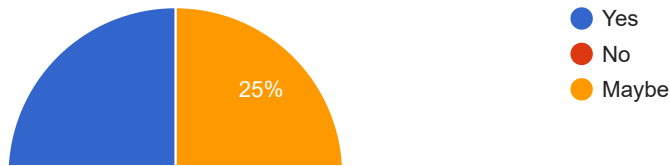
8. Were you aware that content from FASTI, ADS & ARACHNE (along with other datasets) are available in the ARIADNE Portal?
(16 responses)



9. Do you think the ARIADNE Portal provides a valuable aggregation of

different services?

(16 responses)



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QUESTIONS

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Task: Please go to the ARAIDNE portal (<http://portal.ariadne-infrastructure.eu>) and find all information regarding fieldwork on early medieval period sites in Bulgaria (if you try a different search, please make a note in your answer).

(7 responses)

Yes, I have finded it, e.g. St. Mary Temnishka Church

881,453 results

I searched for French monasteries, but what came up first were places in England with the word French in their names, or results with either words in the data. Nothing for France as far as I could see in the result, even after refining the results

Found 1,752,173 results

It's not easy to find precisely only one country... But I found 0 result. Nothing in Bulgaria...

couldn't find a way to filter out 'fieldwork'

i found 117948 entries

10. How would you normally search for this information? E.g. text searches, browsing (following related links), a combination of methods (may depend on the database) or other methods?

(15 responses)

11. If you used text search, what terms did you use? (11 responses)

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Bulgaria

early medieval bulgaria

La Tene, celtic, sanctuary, La Tène, sanctuaire, celtique, Iron Age, âge du Fer

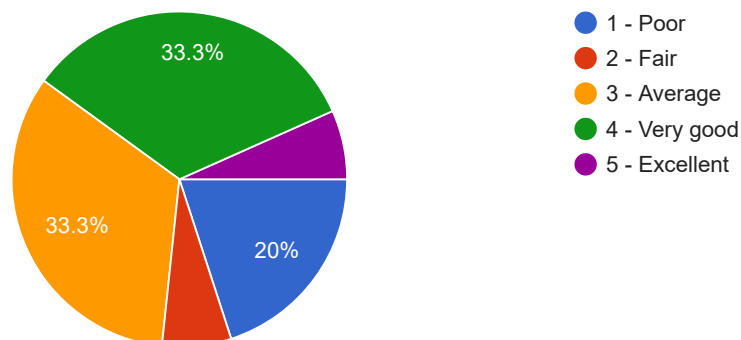
Sites, early medieval, Bulgaria

Bulgaria medieval period

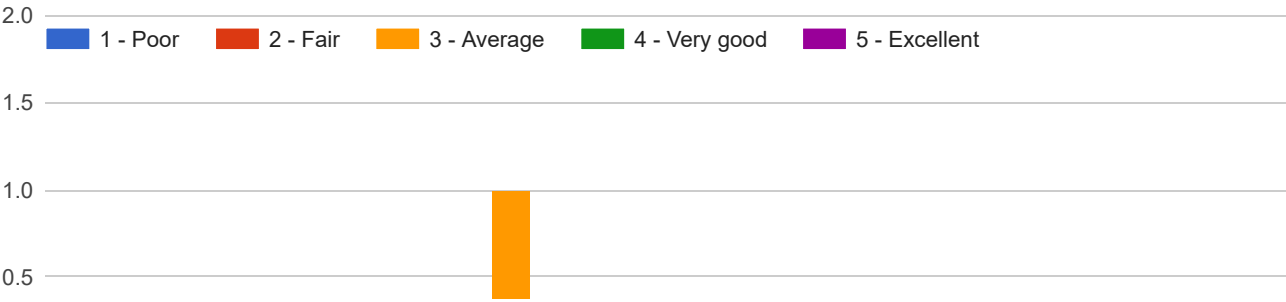
fieldwork, early, medieval, sites,
Bulgaria

medieval period bulgaria

12. How successful do you rate your search results? On a scale of 1-5 - Poor, Fair, Average, Very good, Excellent (15 responses)



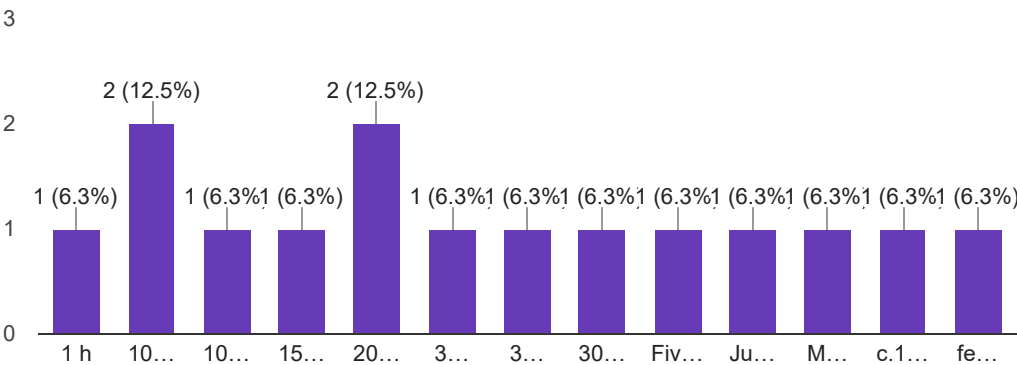
13. Please rate each of the search methods used (1-5, Poor, Fair, Average, Very good, Excellent) for:



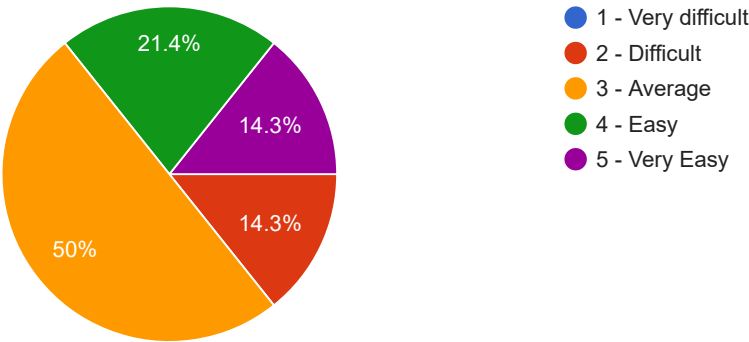
QUESTIONS

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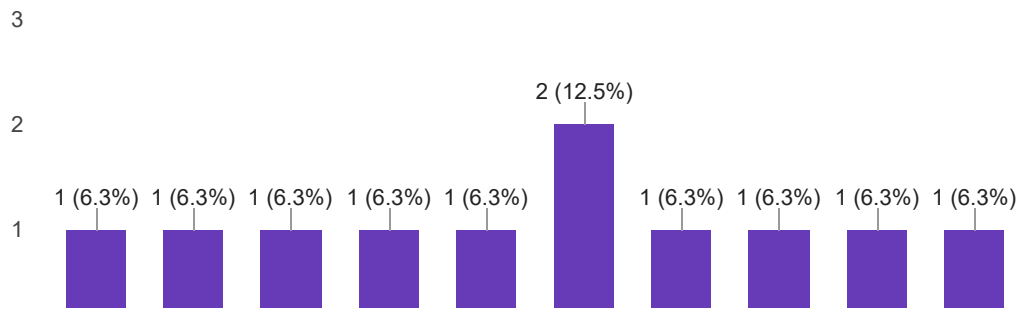
14. How long did you spend searching on the portal? (15 responses)



15. How easy did you find navigating content in other languages? (1-5 for Very difficult to very easy). (14 responses)



16. If you didn't use ARIADNE, what other online sources might you use to find this information? (11 responses)

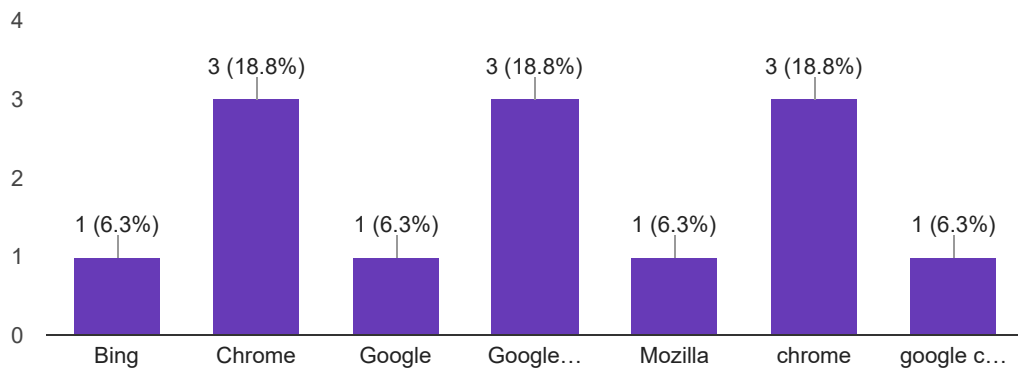


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QUESTIONS

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18. What did you like or dislike about the ARIADNE portal? (11 responses)

LIKE

Impartial feedback of information allowing you to filter as needed and access to more information pathways you would not have known about. Immediate access to contextual information. I found filtering through the WHEN map option difficult.

It is a great resource, which searches through an enormous of data at once, which is really helpful, however if do a search using two words, it searches them separately, so that most results are not relevant to what im searching for.

Like - access to multiple portals & sorting of search results by resource type/topic

I found it a little bit "oldschool" but very intuitive

I like research "when" with the cursor

It's easy, but it's not intuitive. But it's a good product

I liked the fact that I can search on the map

It is difficult to find specific data

data aggregation is good but needs more consistent application of terminologies. Better indexing needed (not a criticism just there needs to be better indexing)

19. Was there anything you would change about the ARIADNE portal?

(12 responses)

Question N. 13 in this questionarry doesn't work

I would put a 'translation' option up there for research in other languages.

include an advanced search option where you could input different variables, and which would bring up results



QUESTIONS

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A better word search with multiple terms, and one online help, or instructions for search (a manual).

none

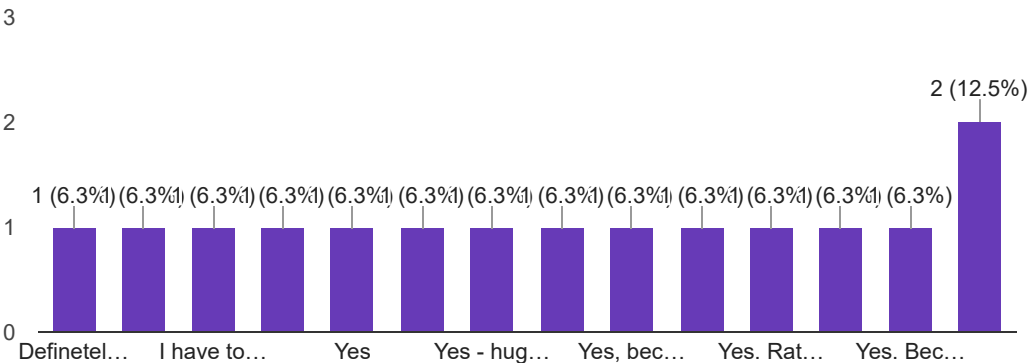
Organization and search engine

Ariadne only presents data from partners - it should become a hub for all cultural heritage data with requirements for all data curators to contribute

spatial searches through text (e.g. 'Bulgaria' rather than/in addition to specifying map extent); easier way to see definitions of filter terms (notably under 'subject' but perhaps also in full text search?)

20. Would you be likely to use the ARIADNE Portal in future? Why do you say that? (Free text)

(15 responses)



21. Any other comments?

(7 responses)

No

I did my research in the simplest way . First typing " Bulgaria " in the text area; then selecting with the cursor 400 to 1000 AD. Result: 0 !

Very good job! Thank you for this work.

I would like to see more content

I tried clicking through to the Bulgarian source dataset, but apparently it is restricted access. An indication of this, accompanying the actual link, would be useful.

Grea work. Mus be coninued.



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- Welcome
- you're welcome!
- Thank you to you for your work and good luck!
- It's a pleasure!
- Thank you for having developed such a useful portal
- You're welcome!