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SOURCES FOR THE STUDY OF ANCIENT THERMALISM: A NEW PROPOSAL FOR EDITING AND TRANSLATION

FUENTES PARA EL ESTUDIO DEL TERMALISMO ANTIGUO: UNA NUEVA PROPUESTA DE EDICIÓN Y TRADUCCIÓN

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Abstract

This article presents a new interdisciplinary project for compiling a digital collection of Greek and Latin sources dealing with ancient mineral-medicinal thermalism. For the first time ever, the project will bring together different types of historical and textual sources into a single publication, and also gather, analyse and expand on previous bibliographic attempts on this subject from a philological, historical, archaeological, and epigraphic perspective. The collection will provide direct access to original sources for the study of ancient thermalism including translations into English and Spanish with a critical, innovative, and updated vision, meeting a long-standing demand by the community of researchers in this area. This new tool will be accessible online for everyone interested in this topic, and aims for both continuity and



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permanence, while always being endorsed by scientific and specialised criteria, and under constant review.

Keywords: Mineral-medicinal Waters. Roman Healing Spas. Classical Sources. Commented Editions and Translations. Online publications.

Resumen

En el presente artículo presentamos un nuevo proyecto interdisciplinar consistente en una colección de textos, en formato digital, que recogerá las fuentes griegas y latinas sobre el fenómeno del termalismo mineromedicinal antiguo. La colección permitirá aunar, por primera vez, distintos tipos de fuentes en una única publicación, así como reunir, analizar y ampliar de forma ágil el trabajo ya existente en la bibliografía sobre el tema desde el punto de vista filológico, histórico, arqueológico y epigráfico. Se dará así acceso directo a las fuentes originales para el estudio del termalismo antiguo con una visión crítica, innovadora y actualizada, algo que la comunidad de investigadores sobre el tema viene reclamando desde hace tiempo. Esta nueva herramienta de trabajo será accesible online para todos los interesados en la materia, con una clara pretensión de continuidad y duración, pero siempre respaldada por criterios científicos y especializados, y en constante revisión.

Palabras clave: Aguas mineromedicinales. Balnearios romanos. Fuentes clásicas. Ediciones y traducciones comentadas. Publicaciones online.

1. Introduction

The study of thermalism has always generated intense interest, essentially for three fundamental reasons: the social, economic and cultural importance of mineral-medicinal waters for healing; its necessarily interdisciplinary nature, allowing its study from multiple fields and perspectives; and finally, its long-standing tradition and the wealth of cultural, natural and intangible heritage recently included on the UNESCO World Heritage list (UNESCO World Heritage Convention 2021).

Yet despite this, the thermalism industry has shown scant interest in using thermal heritage as added value for its resources, frequently overlooking scientific knowledge regarding the origins of this millenary practice, which unquestionably form part of its essence, in addition to the commercial and tourist appeal of the sites exploited by the industry.

Therefore, we are faced with a high degree of confusion surrounding the interpretation of these thermal sites. Despite the need to create differentiated products within the field of balneotherapy, on occasion, insufficient attention has been paid to the considerable construction, functional and cultural differences that have emerged since Antiquity between the types of healing spas, which vary in accordance with the water used.

In the specific case of Roman baths that used mineral-medicinal waters, the lack of multidisciplinary research aimed at shedding light on the immense complexities involved in the use and exploitation of these waters since Roman times (taking into consideration hydrogeological, physical-chemical, functional and cultural factors), has occasionally led to the inappropriate use of terminology, the erroneous or false interpretation of the classical sources cited, and also the imprecise description and understanding of archaeological remains present in many of the healing spas that have remained in use until the present day.

Therefore, we consider it necessary to take up the study of these thermal complexes from an interdisciplinary perspective. Firstly, this enables archaeologists and researchers to identify the differentiating or convergent elements regarding the use of healing spas in Antiquity in order to generate scientifically grounded content regarding the origins of this millenary practice. Secondly, it will provide users and anyone interested in this field with well-founded contents that can be consulted, enjoyed and used in accordance with their interests and needs.

Our starting point was the research project entitled Healing spas in Antiquity: analysis of Roman thermalism from an architectonical and functional point of view (endorsed by Universidad Autónoma de Madrid [UAM] and the Madrid Institute for Advanced Studies [MIAS]). This project addresses the historical and archaeological study of buildings used for bathing in mineral-medicinal waters in the Roman Empire as a source for determining the origin of modern-day thermalism. The project's principal objective is to identify the constructive and functional singularity of these thermal buildings and compare them with other types of bathing complexes in terms of the type of water used, taking the period of the Roman Empire as the moment when the main foundations of modern crenotherapy were laid (see González Soutelo 2019). In this sense, we propose addressing this reality from various

perspectives, creating a point of reference for the research results and contributing different study approaches and new interpretations that will drive the creation of a forum for debate and discussion on this subject.

One of the things our experience in this area has taught us is the need for the review, updating and in-depth analysis of the myriad of information that exists on the study of ancient thermalism. Likewise, it is essential to obtain precise knowledge of the written testimonies in Greek and Latin, both documentary and epigraphical, as their correct analysis can reveal the vision of Roman thermalism from the perspective of its contemporaries.

In this sense, we consider that it is essential to review, update and publish these sources. Only an interdisciplinary approach will yield exhaustive and contrasted scientific results regarding the origins of ancient medicinal thermalism. In this quest, we have considered the value of modern information technologies, creating a dynamic and accurate work tool that generates a source for consultation and analysis open to researchers and the general public, which we trust will eventually become a benchmark for the field.

2. State of the art and background

In addition to the various descriptions and references dating from the 15th century onwards regarding the archaeological evidence identified in a number of Roman healing spas – in the case of Spain, Portugal and Italy, see the Savonarola manuscripts (ed. by Pasalodos Requejo 2020), Limón Montero (1697), Gómez de Bedoya y Paredes (1764-1765) or Ayuda (1798), among many others -, the initial studies on ancient thermalism from an archaeological and descriptive perspective were conducted mainly in France and emerged spontaneously within the context of the renaissance of thermalism in the 19th and 20th centuries and the construction of new bathing buildings on the sites of earlier ones. Examples include the major works by Greppo (1846), Bonnard (1908) and Grenier (1960a, 1960b), as well as the later collective contributions by Chevallier (1992) and Pelletier (1985), and their respective conferences on thermalism, opening up a new phase in this discipline. More recently, further contributions have been made to the body of research, including those of Dvorjetski (2007), Bassani, Bressan & Ghedini (2011, 2012, 2013), Annibaletto, Bassani & Ghedini (2014), Scheid,

Nicoud, Boisseuil & Coste (2015), Matilla Séiquer & González Soutelo (2017), Bassani, Bolder-Boos & Fusco (2018), and Peréx Agorreta & Miró i Alaix (2018), among others.

Specifically, the study of classical Greek and Latin sources associated with thermalism has been a frequent object of historiographical study, albeit centred more on Italy, which provides the largest body of references from classical authors. In this sense, particular mention must be made of the studies on thermal treatments mentioned in the works of classical authors and on thermalism in the Iberian Peninsula by Oró Fernández (1995, 1996), as well as the contemporary review of thermalism in Italy between the 1st and 2nd centuries CE by Guérin-Beauvois (2015). Of special relevance, however, are the studies conducted by J. Allen, in particular her doctoral thesis (1998) which, although again limited to Italy, provides a fascinating compilation of classical texts on thermalism in Antiquity, accompanied by their historical assessment, which has undoubtedly provided a useful point of departure for our work within the framework of this project. Busch's (1999) corpus of poetical texts related to healing spas and thermalism dating from the days of the Roman Empire are also of major importance.

In addition to these collective works, there are also a number of partial studies that are equally useful, although again, the majority are limited to Italy. Examples include those by Pettenò (1997), Miró i Alaix & Miró i Alaix (1997, 2018), Basso, Petraccia & Tramunto (2011), Zanetti, Rizzi & Mantovanelli (2012), Rizzi (2014), and Zanetti (2014); as well as those addressing specific classical authors, such as Callebat (1990), Montero Herrero & Martínez Saura (1997) and Marano (2011), among others.

3. The difficulties posed

Despite the relevance and utility of the work carried out to date, our work into the origins of thermalism based on the study of ancient texts has revealed a number of shortcomings and difficulties that hinder their interpretation.

3.1. The translation question

One of the main problems detected in the bibliography is that only rarely is a comparison made between the terminology and explanations of

archaeological elements with their original Greek or Latin description. In most cases, only the versions of the texts translated into modern languages are used, and they tend not to include a detailed reflection on the issue in question, which leads to difficulties in obtaining an adequate perception of the actual element described. In turn, this causes immense difficulties when sharing experiences and knowledge, given the evident interdisciplinary nature of studies into thermalism. The collaboration of archaeologists, philologists, epigraphers, historians and scholars in other scientific fields (hydrologists, hydrogeologists, architects, etc.) requires the initial identification of clearly defined and unequivocal concepts in order to respond to the questions posed.

From an archaeological perspective, we have encountered numerous difficulties when interpreting thermal spaces from translations. For instance, a single term can be translated in very different ways, depending on the author or the target language, leading to the incorrect or blurred interpretation of some of the phenomena described. It is therefore of vital importance to consider the version in the source language of the specific terms employed, both in Greek and in Latin, in order to use the correct names for the mineral-medicinal waters (for example, $\delta \delta \alpha \tau \alpha \theta \epsilon \rho \mu \dot{\alpha}$; aquae, aquae naturales, fontes medicati, etc.). The same is true of other aspects of the phenomenon, such as the names that refer to authentic healing spas, as opposed to the baths used for hygienic purposes, the terms used to designate the use that was given to the waters, and the differences that can be observed according to time or location. This requires an in-depth analysis of the original texts and clear and unambiguous translations for each term.

Also related to this phenomenon is the fact that a number of the classical texts that provide details of the thermal facilities of Antiquity have not been translated into Spanish or indeed any other modern language, and therefore tend not to be included in bibliographies.

Furthermore, the translated references used for the archaeological analyses often fail to contextualise the phrase or citation. Only rarely do they indicate the origin of the translation or the specific edition of the translated text, leading to a logical uncertainty as to whether the reference corresponds exactly to the classical author's intention.

An added problem in using a translation when defining an ancient concept, particularly in those cases requiring the scientific analysis of material or constructive remains, such as an archaeological site, is that the translator does not necessarily have any precise knowledge of sites of this type. When consulting the translation of authors such as Pliny or Celsus, translators may have to maintain the style and language of the original text, but they are not required to be specialists in the themes included in the texts. As a result, the translations are frequently considerably removed from the realities described in the original text.

3.2. The question of imprecise citations

Another common and particularly serious problem affecting thermalism studies is the custom of citing classical sources in the preceding bibliography, without directly citing the text or the translation, whilst also failing to mention the canonical reference of the passage used in the argument. Indeed, it is usually limited to a passing mention, such as "According to Galen...", when in fact there are a very large number of Galen's works, which in many cases have not yet been translated into any modern language. This is just one example, but it is common practice for all types of authors and passages. When consulting the corresponding bibliographical entry, we often find that these studies have followed exactly the same pattern – namely repeating that Galen had stated something, because it was mentioned in some other work, on occasions dating back to the 19th century or even earlier, but failing to make any reference whatsoever to the specific passage. Searching for the specific reference is an arduous task that yields few useful results to the modern-day researcher. The situation is even more complex when the original citation is misinterpreted or incorrect, as the error is perpetuated indefinitely and the source is never consulted, as frequently no mention of the specific passage is made.

Moreover, even when the full citation is given and the researcher finds it easy to locate in an ancient work, consulting the original version of the texts in a reliable edition is not always possible for those who are not classical philologists. This situation has been remedied to a considerable extent thanks to the publication of a large proportion of the ancient texts online in a number of excellent repertoires. Some of the best-known examples include the *Perseus Digital Library*, an open-source project (Crane s.f.) and the *Loeb Classical Library online*, which requires a subscription (Various Authors, undated). However, these repertoires of texts, which are never accompanied by translations into Spanish, tend to be compiled using editions prior to 1950 and practically all of them include numerous transcription errors or do not include a critical apparatus, and therefore the texts are far from reliable or updated.

3.3. The terminological question

In the case of a terminology that clearly corresponds to ancient healing spas, we have been unable to identify a clear and unequivocal classification in the specific repertoires for the terms that should be used to refer to each element or phenomenon related to thermalism. They rarely include critical comments that facilitate the understanding of the descriptions in context, which leads to a merely partial perception of the full implications of thermalism in Antiquity (in comparison to other aspects of the bathing culture). The inability to compare terms, the variable nature of definitions and the absence of a glossary agreed upon by experts in the field, are just some of the difficulties that hinder the direct interrelation between the texts and the archaeological evidence to be investigated.

3.4. The epigraphical question

Similar difficulties are encountered in epigraphical terms. Although we can find references of interest for the study of ancient thermalism – highlights of which include recent studies by Andreu Pintado (2011, 2012, 2018), Basso, Petraccia & Tramunto (2011), Basso (2013), Ghedini (2014) and again Allen (1998) in the case of Italy, among others –, of particular interest in this field is the study by Díez de Velasco (1998), which sheds light on the possibilities provided by the in-depth study of the epigraphs located in thermal settings related to mineral-medicinal waters.

Nevertheless, these reviews have been conducted essentially from the perspective of religion and the cult of waters. There is a clear need for a study that focuses on the architectural and functional characterisation of these

spaces, as well as on more profane elements that allow the thermal complexes to be interpreted from multiple approaches: constructive, social, political and economic, moving beyond the traditional cultural nature attached to them.

In this sense, it is clear that epigraphy has a major role to play in studies of this type, although the texts are rarely compared with others of a differing nature. Following Allen (1998), we therefore consider that integrating and comparing the information included in classical sources with epigraphical testimonies is essential in order to contrast them with archaeological data.

4. Solutions: the corpus Fuentes para el estudio del termalismo antiguo / Sources for the Study of Ancient Thermalism

4.1. Collaboration between disciplines

Given the difficulties discussed above, we decided to begin a collaborative project between our specialised fields (archaeology and classical philology) for the publication of a new joint edition that would provide a reference for all classical sources that mention, albeit briefly, mineral-medicinal thermalism in Antiquity. The idea is to include the original texts in their Greek and Latin versions, with parallel translations, accompanied by the corresponding archaeological and literary comments that would allow the correct interpretation of both the texts and the *realia* elements referred to.

In order to achieve this, we are seeking the participation of specialists in certain authors and chronologies who are willing to contribute their experience to new editions of the references we identity. A number of colleagues from various scientific fields are also collaborating on this project, bringing their experience in areas such as ancient history and Latin epigraphy to correctly identify the epigraphs associated with each thermal site. We have also included specialists in geography and georeferencing the locations cited in the sources. Their work will lead to the creation of an interactive tool capable of connecting spatial data with references cited in the sources and archaeological testimonies.

4.2. Citation review

In order to redress the inaccuracies that abound in the citations and mentions of authors and ancient works, we have proposed an in-depth review

of all the lists of ancient texts related to thermalism published to date. We check each citation or mention that can be located from the original texts, following the critical reference editions for each author or work, and ensuring that the text precisely matches the bibliographical information. In some cases, we find that the cited passages are incorrect or simply do not exist, but we are also coming across new passages that had previously gone unnoticed. In other cases, the numbering system has changed when compared to the citation that has been repeated over time, and we therefore correct the reference to ensure that it matches the current reference edition.

Our main objective is to include all the testimonies of potential use for the study of thermalism, and in this sense we are working to add all those testimonies that were not considered by earlier scholars to our corpus.

4.3. A new general and exhaustive corpus

As discussed in previous sections, most of the repertoires of sources published to date are limited to a specific area or period. In contrast, our objective is to include all the testimonies, regardless of their nature.

Only rarely have we come across works dedicated specifically to thermalism. Examples include Book XXXI of Pliny's *Naturalis historia*: Book VIII of *De architectura* by Vitruvius; Book III of *Quaestiones naturales* by Seneca; and Book X of the *Collectiones medicae* by Oribasius of Pergamum. Most of the testimonies are descriptions of the characteristics of a specific site, the treatments that could be received there, or a mere mention of the site's name due to its renown or reputation. In some cases, we were unable to find these details, and only general references to possible treatments, waters or muds that were beneficial to health were found, without specifying a specific healing spa or thermal site.

As for the authors that offer useful testimonies, there is a wide diversity both in terms of the chronology and the literary genre that they employ. The most extensive and common type of testimonies are those by technical authors, namely encyclopaedists, physicians, politicians, etc., although there are also poets and other testimonies of a purely literary nature. Other key factors for consideration include the language they write in, the period, their trade or personality, and the location of each one.

To date, we have collected, in chronological order, testimonies from Hippocrates, Herodotus, Sophocles, Aristoteles, Asclepiades, Valerius Maximus, Cicerone, Diodorus Siculus, Horace, Lucretius, Propertius, Tibullus, Marcus Terentius Varro, Vitruvius, Virgil, Ovid, Celsus, Titus Livius, Strabo, the Bible, Columella, Flavius Josephus, Martial, the two Plinys, Plutarch, Scribonius Largus, Lucius Annaeus Seneca, Silius Italicus, Tacitus, Statius, Aretaeus of Cappadocia, Petronius, Dioscorides, Archigenes, Rufus of Ephesus, Florus, Suetonius, Juvenal, Herodotus the Physician, Dio Cassius, Fronto, Galen, Pausanias, Soranus of Ephesus, Apuleius, Aristides, Lucian of Samosata, Antyllus, Statius, Solinus, the Antonine Itinerary, Ausonius, Avitus of Vienne, Claudianus, the Augustan History, Symmachus, Oribasius, Ammianus Marcellinus, the *Peutinger Table*, Casiodoro, Caelius Aurelianus, Rutilius Namatianus, Sidonius Apollinaris, Isidore of Seville, Regginus, Aëtius of Amida, Alexander of Tralles, Paul of Aegina and Saint Gregory the Great.

However, this list, obtained mainly from the bibliography we have used to date, will be extended through searches for key words and parallel passages. We will also be including epigraphical texts of relevance and all other testimonies that are deemed suitable.

4.4. A dynamic open access online publication

The best means of publishing collections such as this is in an online digital format, starting with a database which, thanks to a dynamic web application, guarantees access at all times for researchers and for anyone with an interest in thermalism. The web application allows for the easy and fast compilation, analysis, consultation and comparison of all the testimonies. With this format, the content can be constantly updated and reviewed, and new passages can also be incorporated at any time, avoiding the costs and difficulties involved in paper-format publication.

Although work on including all the testimonies has only recently begun, and completion is set to extend beyond the short term, we have prepared the web application and the database, and are currently in the process of drawing up the various contents. Although the repertoire is not yet available

in open access, it will eventually become so, as soon as a sufficient number of texts have been included.

For this purpose, an online tool has been created with a Spanish/English bilingual interface, which will be hosted on the website entitled *Healing Spas in Antiquity* (González Soutelo 2020), associated with the aforementioned research project.

This online tool is intended to provide a point of meeting and exchange for researchers working on these types of buildings (thermal network) on an international scale. Information posted on the web application will include news and activities of potential interest for furthering our knowledge and expertise in this subject, with dynamic and ongoing updates on the work being carried out in this area. All the information we provide, as well as the database contents, are published under Creative Commons Licence BY-NC 4.0, which allows the contents to be copied, adapted and redistributed for any media or format, provided that authorship is duly acknowledged and the information is not used for commercial purposes.

Regarding the technology we are using to develop the program, this comprises a MySQL database with a CMS Wordpress that we have tailored in accordance with the needs of this type of publication. The advantage of these programs is that they are free and open source, and are also being constantly updated by a consolidated community of online developers, thereby guaranteeing the technical quality, versatility and durability of our application and its options for migration to future formats. In addition, we are also working on the development and design of both the database and the website presentation, which means that maintaining and managing the site is currently cost-free.

As for the actual corpus, converting it into a relational database means that each passage included is accompanied by a series of key data for cataloguing and analysis.

The general list of sources provides a preview of the full collection, enabling full text searches or restricting the list by chronological order, date of the work, language, textual typology, literary genre, author, the healing spa or thermal centre mentioned or the thermalism term included. Figure 1 shows page one of the list.

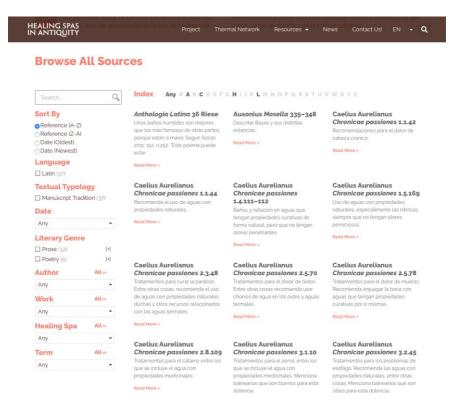


Figure 1. List of sources, including a sidebar to select the presentation and limit searches. Screenshot of the website application https://healingspasinantiquity.es (not yet accessible).

Source	s of Ancie	пі пес	atimg	iner	IIIdl	.15111		
Thermal Sources General	Index							
Anonymous: Anthologic	a Latina I: Carmina in codicibus scr	ipta						
Anthologia	Latina 36 Riese	•						
A Latin			Anth. 36 Ries	se				
Late Antiquity - Uni	Salneum balneolum							
Epigram		Aponi Fons Baiae Thermopolae						
Manuscript Traditio	n		★ Allen 1998					
	pono Veneti, Campania Bais, ermopolis: his ego <mark>balneolis</mark> .							
Original Latin Text Riese 1894-1906 ²	English Translation Romano Martin 2021-Unpublished	Spanish Translation	on					
_	_	_						

Figure 2. An entry sheet, including one of the tabs with a parallel translation below. Screenshot of the website application https://healingspasinantiquity.es (not yet accessible).

The file corresponding to each testimony (see Figure 2) includes not just the original text with its parallel translations, but also details of the author and the work it was taken from, the original language, the period, the literary genre, the textual typology, the key words that appear in the text associating it with mineral-medicinal thermalism, the thermal and healing spa sites it refers to, as well as a specific bibliography on the passage and a comment and unified interpretation for each element. We always include and cite critical reference

editions for each work, as well as a translation into Spanish and English. In turn, all these elements are linked to the pages corresponding to each author, which list other references that also include them. This is one of the main advantages of using a reference database in order to organise the publication.

Moreover, all the pages can be used to carry out searches and relate terms that facilitate the interpretation, understanding and in-depth analysis of the classical sources in their original versions in the light of the archaeological findings.

4.5. New translations

Our major concern are the translations that accompany each passage, as they will facilitate access to these testimonies for all researchers, even those who do not have an extensive knowledge of Latin and Greek. Backed up by the most pertinent bibliography, these versions must be able to solve any difficulties in interpreting these texts, unifying the lexicon that identifies thermal phenomena. This will allow an enhanced flow of communication between researchers and a more accurate interpretation of both the texts and the places they describe, essentially bringing these classical sources within the reach of archaeologists and historians in any area of specialisation¹.

It must be remembered that a number of the texts have never been translated into another language, and others have no translation into Spanish, with the consequent terminological and semantic difficulties involved in interpreting a text through a third language. In the case of lesser-known or later authors, the translations at our disposal tend to be very old, and on occasions are mere paraphrases or summaries rather than actual translations.

We therefore decided that each passage should be visible on the screen with a translation into Spanish and a parallel translation into English, making it easier to recognise the terms of interest in the original text and enabling readers to compare them freely (see Figure 2 above). Whenever

^{1.} In order to achieve this key objective, we are considering not only the bibliography mentioned, but also other studies into Roman building and hydraulic terminology (Catalán Lafuente 1977; Hernández González 1985; Callebat 1990; Rebuffat 1991; Velázquez Soriano & Espigares 2002); and architectural terminology (Ginouvès & Martin 1985; Ginouvès 1992, 1998; among others).

possible, these translations are taken from duly cited previously published translations of high repute, provided that they comply with our requirements of literality and accuracy. Where this is not possible, we provide a new translation into Spanish, which is most often the case. As for missing translations into English, we will seek the collaboration of native English-speaking researchers to fill these gaps.

4.6. Lexicon

In line with the previous section, it is also necessary to identify a specific and single terminology to refer to healing spas using mineral-medicinal waters in order to differentiate them from the other hygienic and thermal baths where ordinary water was used. In accordance with the conditioning factors of these waters (composition, temperature and source), the buildings constructed in order to take advantage of the salutary qualities of these waters had to adapt to a series of factors that would determine a certain construction and functional organisation associated with the sources. This refers to both the infrastructures necessary for collecting and distributing the water from the thermal springs, as well as the use made of the various spaces.

In order to reach an understanding and consensus among researchers and the appropriate characterisation and description of these sites to allow their comparative study, scholars clearly need to employ a common terminology. This will facilitate the understanding of those aspects that define ancient thermalism and also contribute to the identification of the type of infrastructures described in each case.

For this reason, in addition to the corpus, the website will also include a lexicon of the most common terms and topics associated with mineral-medicinal thermal spas. These key words are highlighted in the text of each passage (see Figure 2), and each one will also have its own explanatory file, including an analysis highlighting those aspects or specific definitions that can be assigned to the thermal complexes, considering the similarities and differences between the classical authors and the sources describing the various types of healing spas.

4.7. Catalogues of authors, works and healing spas

In relation to the texts, the database will include two parallel catalogues that can be accessed via the page featuring each fragment, either from the initial list or by conducting a search. One of the catalogues will list the authors included in the collection, together with biographical information, details of the period they lived in, the specific work, their occupation or trade, their language, the place they lived and other pertinent details, as well as the texts they wrote and that are included in the corpus. The second catalogue will detail all the ancient healing spas or thermal complexes referred to in the texts or that can be associated with them. The file for each site will be linked to the passages that mention them, and will include a geographical or historiographical description. It will also list the ancient descriptions and references to locations included in identified sites, and may also include photographs or representative illustrations. The coordinates of each site will also be added in order to provide users with interactive site maps, although their functionality is currently in the testing phase.

4.8. Interdisciplinary interpretation and comment

In light of the information provided in the previous sections, it is clear that direct consultation or simple translation are of little use to archaeologists or historians when it comes to understanding the terms and ideas included in a text they are unfamiliar with. Without a philological comment that clarifies the terminology or expressions employed by each specific author, it is a considerable challenge to interpret the reference to an object or practice apparently mentioned. A linguist is required in order to comment on the passage and explain it from a philological approach and thereby guarantee a real and accurate interpretation, rather than offering a mere approximation that may lead to errors.

It is equally essential for an archaeologist with expertise in these types of sites to explain the terms and situations referred to in the texts. A single work may have multiple meanings depending on the place, function or healing spa mentioned, and such knowledge and experience lies far beyond the scope of the philologist.

In this sense, we consider that each passage should be accompanied by detailed comments on the thermal elements mentioned, as well as on any other literary or linguistic questions that may contribute to a greater understanding from an interdisciplinary approach. Each comment combines findings from the fields of archaeology, ancient history, epigraphy and classical philology, with occasional contributions and advice from experts in other areas such as medical hydrology or hydrogeology. In addition to specialised scholars, any reader consulting the texts will obtain a clear and accurate understanding of the passage, as well as an insight into the terms it contains and the elements it mentions or comments on.

4.9. Updated bibliography

Both the editing of the original texts and the comments dedicated to them are based on the most recent scientific bibliography. Each text is accompanied by a full reference to the edition or editions used, including, where necessary, the critical variants that may allow for a more precise interpretation of the text. In the case of the translations, we also include those in Spanish and English that have proved useful in our interpretation. As for the epigraphs, we cite the specific bibliography associated not only with their reading, but also with their interpretation and context, as well as their source, if known. Furthermore, in all cases the relevant bibliography that makes mention of thermalism or its interpretation in a specific text is included, as well as the principal comments or studies that may be of use.

5. Conclusions

The corpus entitled Fuentes para el estudio del termalismo antiguo / Sources for the Study of Ancient Thermalism aims to provide the general public with a detailed, reliable and comprehensive point of reference for the correction of erroneous citations and interpretations of classical references. It can also shed greater light on the singularities, knowledge and interest in these thermal springs that have existed since Antiquity.

The success of thermalism and wellness tourism is based on the long-standing experience and tradition of using mineral-medicinal waters for healing. Undoubtedly, the foundations of this ancient industry lie in the

classical world, and in particular in the Roman epoch. Therefore, we consider that the in-depth and academically rigorous knowledge of these origins and the value conferred on many of these sites within classical tradition should reinforce the prestige and singular nature of this type of thermal complex.

Thus, we are convinced that this online tool will prove useful in the analysis of the exceptional constructive and functional nature of mineral-medicinal sites since Antiquity, contributing to the understanding and appreciation of the singularity of mineral-medicinal waters, as a source of health, tradition and wealth for those territories with the fortune to possess this natural resource.

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