

Slovenian National Commission for UNESCO

# **ARCHAEOLOGICAL HERITAGE AND EDUCATION**

**An International Perspective on History Education**

**Edited by Danijela Trškan and Špela Bezjak**

**2020**

*Contribution to the project 'The Role of Archaeological Heritage  
in History Lessons in Elementary and Secondary Schools'  
at the Slovenian National Commission for UNESCO*

# ARCHAEOLOGICAL HERITAGE AND EDUCATION: An International Perspective on History Education

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**Slovenian National Commission for UNESCO**

**Ljubljana**

**2020**

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## FOREWORD

UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) states in Article 1 that “*works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view*” are to be considered cultural heritage.<sup>1</sup> Cultural heritage is a very important part of education today, and young people must also be aware of archaeological heritage and particularly appreciate the work of archaeologists who help historians to find out how people lived in the past.

The following publication therefore aims to show some ways in which archaeology and history teaching can be related to each other and to encourage students’ archaeological and historical thinking.

The Slovenian National Commission for UNESCO decided to support the project ‘*The Role of Archaeological Heritage in History Lessons in Elementary and Secondary Schools*’ (2019-2022), as it brings together three areas of UNESCO’s activities in Slovenia and abroad – education, science and cultural heritage.

23 history teachers, professors, lecturers and researchers in the teaching of history at primary, secondary and university level were invited to participate in the project from February 2019 to April 2020.

The papers are written by 25 authors: Eleni Apostolidou from University of Ioannina, Kostas Kasvikis from University of Western Macedonia and Georgia Kouseri from University of Thessaly (Greece), Isabel Barca and Helena Pinto from University of Porto, Flávio Ribeiro from AE School of Cristelo in Paredes (Portugal), Zorica Babić from Archaeological Museum in Zagreb (Croatia), Hilary Cooper and Hugh Moore from University of Cumbria, Catherine McHarg from Historic England (the United Kingdom), Elena Cozma from ‘Alexandru Ioan Cuza’ University and Sergiu Musteață from the Iași Institute of Archaeology (Romania), Marjan de Groot-Reuvekamp from Fontys University for Applied Sciences, School for Child Studies and Education in ’s-Hertogenbosch and Tim Huijgen from University of Groningen (the Netherlands), Marc-André Éthier and Kevin Péloquin from University of Montréal and David Lefrançois from University of Québec (Canada), Christian Mathis from University of Zurich (Switzerland), Benediktas Šetkus from Vytautas

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1 Convention Concerning the Protection of the World Cultural and Natural Heritage. Adopted by the General Conference at Its Seventeenth Session (Paris, 16<sup>th</sup> November 1972). United Nations Educational, Scientific and Cultural Organisation. [Online] Available from: <https://whc.unesco.org/archive/convention-en.pdf>. [Accessed: 29<sup>th</sup> April 2020].

Magnus University, Education Academy in Vilnius (Lithuania), Bronwyn Plescia from Iona Convent School in Pretoria, Johan Wassermann and Denise Bentrovato from University of Pretoria (South Africa), Louise Zarmati from University of Tasmania (Australia), Špela Bezjak and Danijela Trškan from University of Ljubljana (Slovenia).

The publication offers an international perspective on the archaeological heritage in history education. The authors come from 4 different continents and 12 different countries.

The 22 papers are divided into six chapters:

- Archaeology in History Education (four papers);
- Case Studies on Artefacts (four papers);
- Archaeology in History Textbooks and Curricula (six papers);
- Teaching and Learning Archaeology in History Classroom and Museums (six papers);
- An Example of the Community Struggle for the Protection of Archaeological and Cultural Heritage (one paper);
- Resources on Archaeological Education (one paper).

As archaeology is not a separate subject at primary and secondary schools in many countries, this publication presents the active learning of archaeology in history teaching and shows how archaeology can enrich the history curriculum and history lessons. The authors explain the value of archaeology in history teaching (in history lessons, curricula and textbooks). They describe various case studies in which students can develop historical thinking and practice their ability to interpret material culture using archaeological artefacts, objects, remains, sites and other sources. They give many concrete examples of object-based learning, multi-perspective learning, multisensory learning, enquiry-based learning and experience-based activities that enable students to develop historical thinking and understanding of the past.

Since history teachers are not usually trained as archaeologists, this publication tries to encourage history teachers to involve students more in different active learning processes (e.g. by participating in authentic or simulated excavations, visiting archaeological sites or archaeological museums and working with artefacts, etc.) and to prepare them to remember their archaeological and cultural heritage for future generations.



This publication is the third international book published by the Slovenian National Commission for UNESCO.

- First book: TRŠKAN, D. (ED.) (2014) *The Arab World in History Textbooks and Curricula*. Ljubljana: Slovenian National Commission for UNESCO. [Online] Available from: [http://oddelki.ff.uni-lj.si//zgodovin/DANIJELA/DIDAKTIKA\\_ZGODOVINE/\\_private/UNESCO/ArabWorld.pdf](http://oddelki.ff.uni-lj.si//zgodovin/DANIJELA/DIDAKTIKA_ZGODOVINE/_private/UNESCO/ArabWorld.pdf).
- Second book: TRŠKAN, D. (ED.) (2016) *Oral History Education: Dialogue with the Past*. Ljubljana: Slovenian National Commission for UNESCO. [Online] Available from: [http://oddelki.ff.uni-lj.si//zgodovin/DANIJELA/DIDAKTIKAZGODOVINE/\\_private/UNESCO/Oralhistory.pdf](http://oddelki.ff.uni-lj.si//zgodovin/DANIJELA/DIDAKTIKAZGODOVINE/_private/UNESCO/Oralhistory.pdf).
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As editors of this publication, we are deeply grateful to all authors who completed their papers during the COVID-19 pandemic in 2020. We would like to thank Dr Hilary Cooper for helping us to determine the titles of the chapters. For their encouragement and support, we would like to thank Marjutka Hafner (Secretary-General of the Slovenian National Commission for UNESCO), Gašper Hrastelj, Barbara Urbanija and Drago Balent from the Office of the Slovenian National Commission for UNESCO.

Ljubljana, June 2020

*Danijela Trškan and Špela Bezjak*  
(editors and leaders of the project)



## **PART 1**

# **ARCHAEOLOGY IN HISTORY EDUCATION**

## **ARCHAEOLOGY AND HISTORY EDUCATION**

**(Eleni Apostolidou)**

## **DEVELOPING HISTORICAL THINKING IN A HIGH SCHOOL CLASS AT AN ARCHAEOLOGICAL SITE**

**(Kevin Pélouquin, Marc-André Éthier, David Lefrançois)**

## **ORGANIC HISTORICAL REASONING: AN EXPLORATION OF HOW NON-SPECIALIST STUDENTS CAN CONNECT, THROUGH HISTORICAL AND ARCHAEOLOGICAL ARTEFACTS, WITH THE PEOPLE WHO MADE AND USED THEM**

**(Hugh Moore)**

## **DEVELOPING HISTORICAL THINKING THROUGH ARCHAEOLOGICAL HERITAGE EDUCATION: THE MINOAN PALAIKASTRO EDUCATIONAL PROJECT**

**(Kostas Kasvikis)**



## ARCHAEOLOGY AND HISTORY EDUCATION

### Abstract

The chapter discusses the cases where Archaeology and History meet, first as disciplines, and second in education, and more specifically history education. Issues of epistemology and methodology in relation to the two disciplines are discussed and additionally different typologies of both museum' displays and archaeological inquiries and displays. Both the methodologies in history and archaeology, seem to be informed by certain perceptions of the present-past relationship, perceptions that either contribute to interpretations 'static' in time or dynamic ones.

**KEY WORDS:** ARCHAEOLOGY, HISTORY, HISTORICAL THINKING, MATERIAL CULTURE, MUSEUM DISPLAY, HISTORY EDUCATION, MUSEUM EDUCATION, ARCHAEOLOGY EDUCATION.

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## ARCHAEOLOGY AND HISTORY EDUCATION

### Archaeology and the Discipline of History

Cooper (1991, p. 18) reminds us that “*Collingwood worked out his philosophy of history through constant practical application to archaeology*”. Referring to Collingwood’s philosophy of history that would mean the deductive way of thinking which is typical for historical thinking; in other words, material, and other, remains do not give us all the information that we would need about the people of the past. In this way, historians are obliged “*to make deductions which are also probabilistic - reasonable guesses about the evidence*”, (Ibid., p. 17). Hodder also emphasizes another characteristic of history as a discipline: the fact that it focuses on “the ‘inside’ of events, at the intentions and concepts through which the subjectivities of actors are constituted”, (Hodder, 2003, p. 125). Piggott, cited by Hodder, (2003, p. 164), suggested that archaeology is history “*except the evidence is not intentionally left or recorded as history; it is ‘unconscious’*”. Finally, Hodder urges archaeologists to move from processual archaeology that has distanced itself from history, to an earlier type of archaeology that reminds us of history. Equally, postcolonial critique that was exercised to the processual archaeology of the 1960s (Meskell, 2007, p. 25), spoke of the need of multiperspectivity and the need to overcome a western centric way of thinking and classifying civilizations: “*we must recognize that at any historical place and time there will be, many pasts to think into*”, Hodder notes (2003, p. 154). Processual archaeology demanded a methodology that would be universally applied on exclusively material data and possibly deduct general schemas and laws indicating evolution. To do so it “*decried both culture-historical aims and the interpretative methods*” (Ibid., p. 153), in other words it deprived itself from sense making processes.

### Museums, Archaeological Excavations, Material Culture

#### **Introduction**

This section of the paper discusses historical learning in a material culture environment, the latter including museums, as well as several museums types (traditional or modern), all kinds of objects, finally, archaeological findings in museums and as products of excavation. In relation to archaeology education, the discussion would be about the teaching strategy to be opted for, as regards the past-present relationship. Is the past of the archaeological findings that matters most, or an interpretation necessarily relevant to students’ present? Would the context of the archaeological excavations, the ‘timing’ of them, and the ‘biography’ of the archaeologists

themselves, be relevant to our lesson, whenever we present archaeological processes to students?

I will also focus on the special quality of the material culture that makes it an advantageous environment for the development of exploratory learning processes, the latter aimed to by history teaching at least for the last half of the twentieth century onwards. For the latter part, research data will be presented in relation to the historical thinking of students of different ages in a museum or material culture environment. The beneficial role of material culture, especially monuments, will also be demonstrated in relation to the teaching of 'controversial' and 'conflicting' historical issues in the history class at school.

### ***History Didactics and History Teaching at School Today***

History Didactics, *"as a complex, interdisciplinary and distinct from general didactics, subject has been researched [in the universities], since 1960 onwards"* (Repoussi, 2000, p. 321). History didactics highlighted the need for the release of the school history from the 'great tradition' (Husbands, 2003, p. 8), which passivizes the student attributing a very important role to the teacher, while the latter largely reproduces a 'ready' and 'closed' narrative about the past, usually ethnocentric, as it aims at 'constituting (national) identity' (Kavoura, 2011, p. 19). 'New History' in history didactics, focuses on the historian's disciplinary processes and the development of students' critical ability. In the context of 'New History', an evolution of history didactics that focused, on the development of students' historical thinking and their participation in exploratory processes, instead of students reproducing stories structured from a specific point of view, they instead practice recognizing the causes of differentiated views of the past.

The culturally fragmented environment in which students live today and their exposure to conflicting historical narratives make traditional school approaches in schools inadequate (Seixas, 2002). Additionally, as Lee and Howson (2009, p. 214) point out, *"memorizing historical narratives without realizing the problems that historians have encountered in the process of constructing them or evaluating them cannot be considered history"*. The above emphasis on the processes through which history is written and the familiarization of students with basic historical concepts, is also relevant to the use of history by students in the present and the future, or the formation of their historical consciousness (Rüsen, 1987, p. 286). As Husbands points out, the reason why students should practice evaluating different and sometimes conflictual historical narratives is not only about the discipline of history, but also about the process of making sense of everyday events, where there is also a need for judgments and choices (Husbands, 2004, p. 34). It is precisely in the context of connecting historical knowledge to the present and the future, that history educators

today speak of the need for creating ‘relevance’ of school history with students’ interests and lives (Kitson et al., 2011, p. 149). In other words, students at school ought to be convinced that past knowledge concerns them and offers them a perspective to understand the world in which they live. The latter is possible when ‘difficult’ and ‘controversial’ issues are not bypassed in the history classroom but become a subject for debate in the lesson.

Finally, history educators emphasize the environments in which students learn about the past, or their ‘historical culture’. They point out that history teachers ought to be aware of history produced in the public space, in the context of family, television, cinema, museum narratives, electronic games, since according to research, historical culture constitutes also contributes to shaping students’ historical knowledge and consciousness (Ribbens, 2007, p. 6; Von Borries, 2009, p. 302). In conclusion, what seems to be important about history teaching today, is for students to realize that historical narratives are written from specific points of view, since they correspond to different questions each time, and that consequently “*there is no single version of reality (which to be recorded by the historian)*” (De Olega, 2012, p. 249). Considering that museum exhibitions, as well excavation processes, actually constitute historical narratives, we will look at different types of museums, as well as archaeological excavation principles, in terms of how they deal with two major problems in professional historiography: first, ‘how narratives are perceived by public’, through the experts’ methodological, exhibition and archaeological excavation options, and second, the ‘referentiality’ (Liakos, 2007, p. 215) of those narratives to the past they describe and disclose. In short, are museum collections exact ‘copies’ (Lee, 2005, p. 60) of the past, therefore, final representations of it, do they provide the context for students and the public for alternative interpretations? Speaking of archaeology, what is more important, the findings, set in specific time in the past, the time when they were produced, their use in different periods in the past till now, or the archaeological findings’ perception by experts and the public in the present? Is the public’s perception of archaeological findings in the present part of the findings’ identity or not? If museum exhibitions, and archaeology education ‘follow’ history teaching, students should be involved in sense making processes as regards museum objects and archaeological findings, being aware that the latter constitute interpretations of the past, so they are temporary. Similarly, people’s interpretations on current issues could be evaluated in terms of ‘origin’ and validity, and thus skills in relation to the past would be transferred to the present. The above procedures would support a historical consciousness informed by the discipline of history.



## ***Types of Museums and Historical Thinking***

‘Traditional’ is the museum that corresponds to the traditional, usually ethnocentric, historiography and the ‘great tradition’ in terms of teaching history in schools. The relevant museum narratives emphasize the advantage of their correspondence to the past they speak of, also the authority of the researcher, or the curator of the exhibition to present the past as a unique, ‘closed’, ‘static’ and inevitable reality. Emphasis is placed on the ‘form’ and the types of objects (Mansilla, 2012, p. 271) rather than on their meaning. The visitor, on the other hand, is encouraged to believe that the past is ‘discovered’ by the historians, who present it in an ‘accurate’ and ‘complete’ way. In relation to the traditional museum, Nakou (2001, p. 133) refers to a linear chronological presentation of the relevant exhibits which implies its correspondence with reality itself. He also describes the above museums as ‘object oriented’, i.e. as focused on objects rather than visitors. The above characterization concerns a situation where, apart from the unique interpretation proposed by the museum, there is no room for interaction between the objects, the curators of the exhibition and the visitors, and therefore for alternative interpretations on the part of visitors, which have not been taken into account.

‘Object and people oriented’, i.e. focused on both the objects and the visitor are the ‘modern’ or contemporary museums: they follow a modern epistemology which relativizes and historicizes interpretations, the modern historiography that attributes an important role on interpretation processes and the subjectivity of the historian, and ‘New History’ in the teaching of history, which attributes an active role to the student training him in historical methodology. In modern museums, a lot of attention is paid to the information that accompanies the exhibits and the attractive way of presentation, so that the visitor can see the objects in their space-time context, in a way that he will finally approach the people ‘behind’ the objects. There is interest in the people of the past, as well as the visitors.

We finally have the ‘people oriented’ museums, the ones exclusively aimed at their audience, or the postmodern ones, or the ones with multiperspectivity (Nikonanou & Kasvikis, 2008, p. 14). These museums attribute great importance to experience, interaction and public participation. ‘Take the smell test’, the London museum in Docklands urges the visitor. Boxes with question marks on them ‘challenge’ the visitor to guess the product that was traded through Thames. In this way, museums that encourage experience, do not just display objects but they may provoke the sensory ‘reconstruction’ of a specific environment; the latter environment in the case of the museum at Docklands is a port with its smells. Additionally, ‘people oriented’ museums are interested in incorporating as many types of audiences as possible, which is why they include alternative perspectives in their exhibitions, and they display material culture relevant to the life of traditionally ‘marginalized’ groups of people in history, for example, immigrants. The exhibitions are usually thematic (Mouliou, 2005,

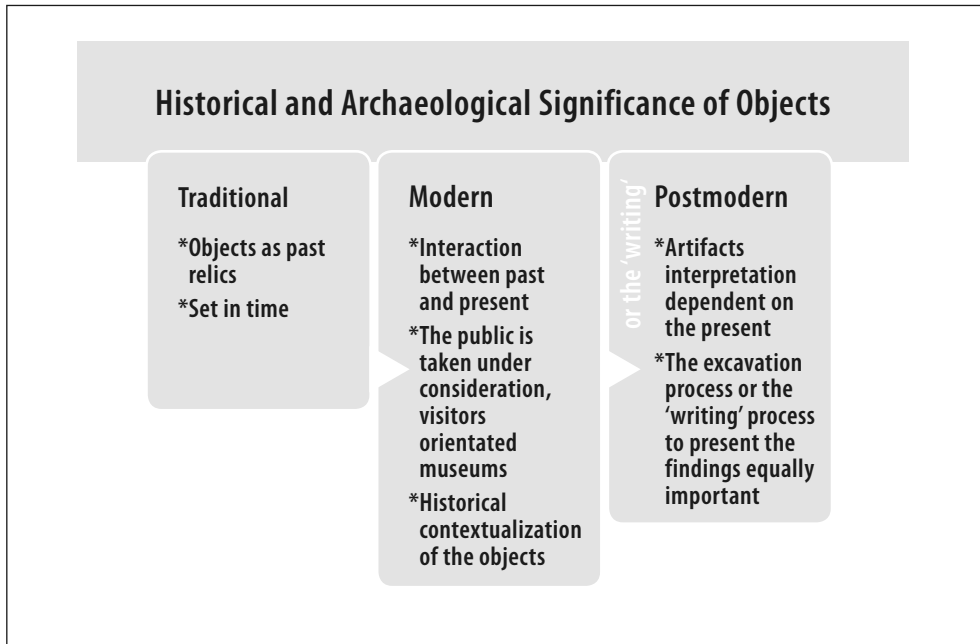
p. 12), and evolve around a certain concept, they are not focused on the well-known traditional national or ethnic groups. On the other hand, the latter presentation of several local and marginal groups, in contrast to the dominant national group, has already declined, as a new trend has emerged, that of the 'identities' or 'mentalities' museums: we seem to have moved from the 'community' museums to the museums that focus on local customs or practices, and where objects play a very limited role, while the focus is on different groups of people, mainly by the way they live. Asensio and Pol (2012, p. 261) report that in the mentalities' museums, which are usually located in small communities, the members of the group themselves, represented by the museum, play an important role in the 'setting up' of the exhibitions.

Returning to our question about whether museums contribute to the 'New History' history education, we conclude that only modern and postmodern museums that allow the public to participate in the interpretive process and that show alternative and readings of the past with multiperspectivity can play this role. The educational role of the museum is articulated on two levels, the level of the museum exhibition and that of the educational programme. Nakou concludes, that sometimes even traditional museums may really have modern educational programmes and in this way the negative effects of the traditional museum on students' activation is minimized (Nakou, 2001, p. 88).

On the other hand, in relation to the new technologies used in the museum, such as digital media, their use might be controversial: it would be good not to distract the visitor from the exhibits themselves, also to take into consideration that a museum presentation that uses modern means is not necessarily modern itself: Nikonanou and Bounia in their survey twenty-five electronic applications in museums, they concluded that most of them were informative and 'closed' and that they could not inspire new interpretations on the part of the users (Nikonanou & Bounia, 2014, p. 190).

### ***Archaeological Traditions & Historiographical Implications***

In the same way museums are classified into traditional, modern and postmodern depending on their implied relationship between past and present, archaeological interpretations could be equally distinguished between the same types depending on the same relationship between past and present that provides criteria for the description of the relevant artefacts, archaeological findings. A figure follows providing a classification of archaeological methodologies, the latter based on Nakou's description (Nakou, 2001, p. 60).



**Figure 1.** Historical and archaeological significance of objects (based on Nakou, 2001, p. 60, a Greek publication).

### ***'Traditional' Archaeology***

According to Nakou when archaeological findings are interpreted in a static way, only in relation to the past, the time they were constructed, and they are put in hierarchical order according to their aesthetics, the archaeological approach and methodology is considered as 'traditional'. In Greece, for a long period of time, we had a prevalence of the traditional methodology in archaeology partially because of the country's 'glorious' classical past. The consequence was that there has always been a tendency on the part of the Greek state to preserve antiquities of the classical era, of the 5th century B.C., instead of other periods:

*"The national Greek narrative was structured around the Classical period because the latter was also the one favoured by European Philhellenes, historians of Antiquity in Western universities and intellectuals (Kyrtatas, 2000, p. 254). In his article, Kyrtatas claims that Greek Antiquity was perceived by modern Greeks throughout Europe and, for this reason, the modern Greeks were as selective towards Antiquity as were the Europeans. On the other hand, Europeans favoured the Ancient Classical period as opposed to the Archaic period or the Hellenistic years, what we would call 'Late Antiquity'. There is also evidence for the above in the development of neoclassicism as an aesthetic and architectural movement in the 19th century, both in Europe and Greece (Tzivas, 2000, p. 268)" (Apostolidou, 2010, p. 10).*

Repoussi (2004, p. 99) in her article about the use of monuments as sources for the teaching of history, notes that till the 1950s the Greek state protected by law only antiquities till the early Byzantine era, especially the classical ones.

Sambanikou (2006, p. 13) speaks of the ‘defensive practices’ on the part of the Greek state to attribute the Hellenic identity to pre-historic collectivities that lived in the Greek space. That is the reason why the processual archaeology that was developed in the West in the 1960s was late in Greece, also the post-processual archaeology. There is research work in Greece (Kasvikis, 2004, 2017; Papakosta, 2016) that focuses on the archaeological narratives in the Greek history textbooks for the primary and secondary school. It seems that the descriptions of the archaeological methodologies are elliptical and impersonal without leaving any space for interpretation exercised by the archaeologist; the artefacts are ‘discovered’ throughout excavations and do not seem to be interpreted (Kasvikis, 2007, pp. 158-159). The usual objects to be ‘found’ are those characterised by aesthetic superiority. What seems to be prevailing in the Greek history textbooks is the historic-cultural version of the western archaeology of the 19th century, that seems to focus on placing objects in time and especially attributing them to specific cultural groups that are seen to evolve into ethnic groups. The historical-cultural archaeology that prevails in the Greek history textbooks, is identified with the support of nation states. As Appadurai (2001, p. 14) put it “... *national imaginations require signatures of the visible, and museums and archaeology as a practice are about signatures of the visible*”.

A ‘turn’ in Greek history education in relation to the education of archaeology seems to be realized with the 2018 history programmes of studies; Kasvikis and Kouseri note (2019, pp. 187-188) two significant novelties in the 2018 programmes of studies: first, an emphasis is given on prehistory instead of history, second, we have references on archaeology even for historic periods of time. Also, there is supposed to be practice of the 10-year-old students in the archaeological methodology and their familiarization with its phases and technical terms. The latter constitute a ‘revolution’ for history education in Greece, where archaeology simply ‘served’ the constitution of the ethnic identity through material evidence.

### ***‘Modern’ Archaeology***

The modern archaeology is identified with the processual archaeology that developed in the 1960s, and there were pros and cons as regards processual archaeology: it was developed as a response to the inferior role archaeology played in the 19th and the most part of the 20th century as regards the discipline of history; it seems that archaeology in the 19th century was formed as a discipline to assist the validation of the historical hypotheses, the latter focusing on the support of the several nation states that there were founded in that era. Herzfeld in his book *Ours once*

more: *Folklore, Ideology and the Making of Modern Greece*, explains how the discipline around 'folklore', popular culture, that represented the essence of the people of each nation, supported the national identities in the 19th century and to do so he focuses in the Greek case. He does not only refer to folklore but also to language issues (Herzfeld, 2002, pp. 6 & 17), the efforts that were made to display certain folk songs of the 19th century as an evolution of the ancient tragedy, or to deprive the Greek language of those years from other languages 'loans', like Turkish words. Folk studies and linguistics functioned in Greece of the 19th century in the same way as archaeology: all three disciplines established a specific collective identity stemming from ancient (classical) Greece. It is well known that certain buildings that were built on the Acropolis hill in Athens originating either in the Ottoman, or the Venetian Occupation periods, were demolished as soon as Athens became the capital of the Greek state, so as the capital would identify only with its classical era, all the others being excluded.

What happened in Greece was not unique and a reaction to this 'political' version of archaeological studies was 'processual/modern' archaeology that displayed a claim on a methodology of its own and of its disciplinary independence. As Kotsakis put it, "(Processual) archaeology embarked on a rigid neo-positivist epistemological example and ignored ideology, intangible practices, for the benefit of the economy, rational choice and adaptation to the environment" (Kotsakis, 2006, p. 11). In Hodder's words, "... (in processual) archaeology there were limitations deriving precisely from the rejection of cultural meanings, agency and history... [it was an attempt] to rewrite history as a natural science ..." (Hodder & Hutson, 2003, p. 173).

### **'Postmodern' Archaeology**

The postmodern archaeology is the post-processual one that functions in a similar to ethnography way, meaning that it moves from the large-scale 'categories' of the several civilizations, to the small scale ones of the people that constitute the above civilizations (Kotsakis, 2007, p. 10). Archaeology in order to describe civilization need not only refer to material factors but to meanings, since, and at this point Kotsakis refers to Hodder, civilizations are made of meanings.

In reference to school practice archaeological remains ought to be examined by students with the aim to reach people's meanings in the past. On the whole students ought to study a mixture of processual and post-processual archaeology, in a way that neither methodology would be overlooked, nor a historic-holistic approach that would allow students to make sense of the past.

History educators have for long argued on the benefits of incorporating archaeology in the school curricula: while Cooper (2009, p. 13) focuses on the development of

*“imaginative, creative, inductive and deductive high level thinking”* provided in the context of archaeological projects in primary school, Forrest and Weldrake (2009, p. 32), emphasize the need to encourage students to overcome the concept of an archaeologist who just ‘finds’ things, and make them think how ‘findings’ are analysed and interpreted. Ferrer and Egea (2019, p. 91) introduce us to the use of objects by pedagogists as ‘an active element of thinking,’ a concept well-known from the 19th century, and emphasize the benefit of archaeology in the classroom as it trains students *“to make observations and think of interesting questions to be answered through the analysis of evidence”* (Ibid., p. 92). Finally, Henderson et al. (2018) orchestrated a project within which fifth to seventh grade students using archaeological evidence of a dismantled 1930s neighborhood at Kentucky, oral testimonies of survivors and public records, attempted to reconstruct the way of life, social relationships, economic context of the relevant community. Returning to Cooper, archaeology projects also encourage cross-curricular approaches following Bruner’s saying that when history connected to other disciplines, *“[it] permits many other things to be related to it”* (Cooper, 2009, p. 13). In the following pages there will be a discussion of the advantages of material culture for education, as regards museums, monuments and archaeological displays.

## **The Advantages of Material Culture for History Education**

However, apart from the differentiated contribution of traditional and modern museums or the varied archaeological education procedures, to the development of historical thinking and the formation of students’ historical consciousness, many history educators, museum educators and general educators emphasize the advantages of material culture for education in general, and history education in particular. Museums and public archaeology projects, being informal education institutions, and because they produce historical narratives that concern a wide audience, already form part of the broader historical culture of students. History education today takes into account the other ways, apart from school, in which students become familiar with the past for the following reasons: history produced in public space influences the historical consciousness of the people in general, and of our students in particular, more than academic history (Munslow, 2007, p. 240), and because *“the industry of the past and the memory”* is more appealing to students than the traditional school versions of history education (Gazi, 2002, p. 45). However, the attractive character of museums, archaeological findings and material culture in general, results partially from their ‘materiality’ and ‘materiality’ implies ‘experientiality’ and triggers comparisons with the present in the context of everyday life. Pearce (1994, p. 25) talks about the ‘metonymic’ character of objects and other material remains in relation to the past, since they constitute parts of the past itself. In addition, Nakou (2009, p. 95) comments on the growing interest in the past and the museums as a result of the world’s need for ‘solid’ and ‘stable’ things, especially in a

period characterized by consumable goods and rapidly changing images in the context of electronic media.

Two other factors that create a fruitful framework for history education through cultural material elements, are the multisensory character of material culture, for example of the museum space, and the social dimension of the visit, as visitors are in constant interaction with the collections, but and with each other, also, with the museum staff. Kavanach (Nakou, 2009, p. 76) describes the above experience as 'emotional', since only the narratives that provoke our interest make us reflect on them. According to Nakou, the museum objects, lead to the retrieval of our personal memories and the comparison between them and the narration, orchestrated by the exhibition. The museum's proposed 'narrative' makes us think, because there is emotional stimulus and personal interest: we feel that the exhibition concerns us. On the same lines, Gazi (2004, p. 7) cites the example of a hypothetical toothpick museum, which, although it meets all the rules of museological practice, has no visitors. She concludes "... *that museums exist to enrich everyone's life and not just to provide security and scientific research' services*". Finally, Mouliou reminds us that learning with objects, and perhaps other types of learning too, is related to experience, and that it is not only about gaining more knowledge, but also critical thinking as well as understanding emotions, and she quotes Lord and Lord who talk about the "*intense emotional experience*" inside the museum.

In conclusion, learning with the use of material culture, students are provided with the advantages of 'materiality', 'immediacy' as regards objects, and the 'multisensory', 'social' and 'emotional' approaches that prevail in the museums and other non-formal education places; moreover, because material culture constitutes an element of everyday life in the past, it gives students the motivation to learn about the past. Past artefacts also encourage people to enter the process of recalling personal memories and reflecting on themselves and their lives, and thus material culture spaces like museums, are places of knowledge, reflection and identity building. Another advantage of material culture in education, more related to the history and methodology of criticizing sources is the following: according to Lowenthal (1985, p. 243-244), "*relics are mute, they require interpretation*". Other researchers talk about the 'breadth' (Bounia & Nikonanou, 2008, p. 83) of material culture in general, meaning the possibilities they offer for multiple interpretations, while Nakou points out that material remains 'imply' their representative relationship with the past and call us to their interpretation. She also explains that unlike written sources, material evidence has not been constructed to convey a message, but it constitutes itself the message for people that will attempt deciphering it (Nakou, 2001, p. 65). In consequence, material remains make it easier for children and adults to participate in explorative processes of interpreting them, especially when open-ended questions are asked, questions that would encourage many possible answers. Material culture's main advantage remains that in the way that objects are linked to children's daily lives,

they push them into a process of comparison between past and present. Below two excerpts from student interviews follow, the interviews were conducted as part of a study on the historical consciousness (Apostolidou, 2006) of high school students.

Students were asked to choose from seven monuments which ones they would keep and which ones they would destroy in order to build a public road:

Maria: *“(I would destroy) the third, the neoclassic building, because I do not consider it as important as the previous ones, but it is still 19th century, despite the fact that it is closer to our own period of life, the ways in which they built houses then was different from now”* (Apostolidou, cited in Nakou, 2009, p. 129).

Christina: *“My first choice (of a building to be to preserved) would be the 5th century B. C. temple because it shows the time period how it was then, in antiquity, the beliefs people had in those times, and that they thought in different ways in comparison with us today.”*

We note that the advantages of material culture as pointed out by different researchers, and in combination with open-ended questions, such as those used in the above research, led students to formulate reasonings that could be characterized as historical. It is also pointed out that although some of the exercise’s monuments are part of the official national narrative and were deliberately used to trap participants in the use of a cultural (non-historical/‘practical’/identity) past, they eventually made them to produce thinking that characterizes a discipline of history methodology (Apostolidou, 2009, pp. 130-131): students focused on differences between past and present and described the ancient inhabitants of the country not as their ancestors but as people of the past different from themselves. According to Halbwachs (1980, p. 81), *“history is interested in differences and contrasts and highlights the diverse features of a group by concentrating them in an individual”*. Additionally, in the second excerpt one can notice that students used the remnants of the past to draw conclusions about lifestyles and mentalities. According to Nakou, this is also an example of a historical way of thinking. Commenting on findings from her own research, she points out: *“... the content of the thoughts expressed (by the students) had a historical character, as the remains were not processed as simple objects of an a-historical present, but they were connected ... to their human/social context ...”* (Nakou, 2000, p. 210).

A recent doctoral study confirms the above advantages of material culture in terms of the development of historical thought: Kouseris asked her students, 15 and 17 year-olds, to comment on exhibits of two museums in Athens during a school their visit, additionally to comment on them in print, as photographs, and in a digital environment. Students had also to compare the advantages and disadvantages of those different forms of presentation, physical/material version, printed (in textbook) and digital.

The students not only managed to historicize the exhibits based on ‘the use and recall of pre-existing historical knowledge and the use of relevant information’, but



also they developed to an extent ‘interpretive historical thinking’ depending on the type of exhibits they had to comment on, material, printed, digital) and the educational approach. Regarding the use of sources from the past in different forms, Kouseri notes: *“The findings of this study show that students associate the study of the material remains ... mainly with the potential to create a historical perspective, to produce the remains historical contextualization. Therefore, the study of a material residue ... enables students to integrate the object in its broader historical context through comparisons with other objects and through situating it in historical space and time”* (2015, p. 435).

Closing this section of the work that comments on the cognitive advantages of material culture in particular in terms of the development of historical thought, we present some examples of good practices from well-known researchers focusing on the use of material culture items in the classroom: In addition to the cases of Levstik and Barton (2005) who used photos with everyday scenes, both for research and educational purposes or for those that encourage children to bring items from home and tell the story of their family, similar practices are suggested by Cooper in her two history teaching textbooks she has published, in 2009 and 2012. Thus, by showing to 8-year-old children the photograph of a Saxon scepter, and providing them with additional material of written sources and other material evidence, and in the context of three short questions which the children had to combine with the picture, she received the following answers:

| Question   | Answer  |
|--|---|
| 1. What could you <b>learn</b> from the scepter about how people in the past lived?                  | <i>“They had a scepter, thus they had kings”</i>  |
| 2. What could you <b>guess</b> ?   | <i>“The scepter is decorated by a deer, the deer might symbolize something”</i>               |
| 3. What is it that you definitely <b>could not learn</b> from the object depicted in the photograph? | <i>“Why they built it from stone, or why they did depict a deer and not the king himself”</i> |

**Figure 2.** The Saxons’ scepter.

In short, students managed to use their experience and previous knowledge to formulate hypotheses about the lifestyle of the Saxons. They also managed, in the context of the above three questions given to them by the researcher, to test their own knowledge by demonstrating metacognitive skills, the latter is being considered as a basic characteristic in constructivist learning. Finally, they exhibited imagination and tried to understand how people thought in this distant time and this last feature is also characteristic of historical thinking (Cooper, 2009, p. 153).

It is possible that Cooper’s three questions above would not be as effective with written sources, even simplified ones, which we usually provide with a bit older children,

for two reasons: written, textual sources in the history lesson require special handling, because children, as well as many adult readers, tend to understand them literally, that is, as pieces of information, the latter is empirically established by research. Their tendency is not to understand the process of forming historical hypotheses and they consider that what the books of their school history write has been ‘discovered’ in the form of a given narrative in some sources of the past. In short, children find it difficult to understand the process of composing historical information into a narrative, the latter being the means the past gets known to us. They perceive of written sources as ‘reports’, from the past, and do not apply on them what Wineburg calls ‘sourcing heuristics’. In contrast, material evidence is usually not accompanied by text that would trap children in a literal reading, and in this way, it is easier for the children to enter a process of asking questions. On the other hand, we also have the language issue: objects can be more easily accessed by people of all ages and by very young children, written sources presuppose an expanded language code and modification on the part of the teacher to approach the modern language code.

We end here this part of the study that sought to highlight the advantages of material culture for history education: in addition to the ‘Immediacy’ in experience and ‘materiality’ that objects provide, they are also distinguished for their ‘breadth’ (Bounia & Nikonanou, 2008, p. 83), that is, their potential to favor multiple and creative interpretations, precisely because, contrary to written sources, ‘they do not speak’, they do not offer ready-made stories. On the other hand, a ‘traditional’ presentation of material exhibits can integrate them into a closed narrative, thus eliminating their inherent ‘breadth’. It is up to the teacher or the museum educator to create an open educational environment for the students and to take advantage of the inherent advantages of the material culture.

## **Material Culture, Historical Consciousness, Historical Literacies: Teaching Conflictual Issues in History Education**

What is considered important for history students today is to be able to critically use history in the present; this would be the reason why conflictual issues should not be avoided in history classes. Another way for history teachers to take advantage of the material culture for the above purpose is to use monuments in the public spaces of cities (and sometimes the countryside), which give us a lot of information about the time in which they were built, while the controversies around them, contribute to our historical knowledge about specific time periods. Repoussi suggests:

*“... the monument is proposed as a historical source, a tool for historical learning ... (the monument) is contextualized and connected on one hand with the monumental policy that created and on the other hand with its remembrance function”* (Repoussi, cited in Angelakos & Kokkinos, 2004, p. 84).

Three cases of controversial monuments and one of an archaeological display that clarify the relationship between monuments, museums, historical consciousness, and historical literacy will be presented. Seixas, like other history educators or researchers of historical consciousness (Wineburg, 2001; Levstik & Barton, 1996; 2005; Rüsen, 1988, 1991), emphasizes the importance of ‘unofficial’ (Penuel & Wertsch, 1998) narratives, such as those disseminated in the public sphere, which affect the historical consciousness of the people, and he has equally dealt with the family stories of students (Seixas, 1993), the cinema (Seixas, 1994) and material culture (Seixas & Clark, 2004). In their article ‘Murals as monuments’, Seixas & Clark note the following:

*“Public monuments along with memorials, school history textbooks, museums and commemorative holidays occupy an arena where modern societies define themselves most explicitly in relation to their pasts. They are quintessential examples of what Pierre Nora (1996) has called lieux de memoire, sites of memory. While an analysis of the lieux themselves can reveal historical consciousness, the sites become particularly interesting [when] they inspire debate and contention.”* (Seixas & Clark, 2004, pp. 146-147).

In the article they refer to a public dispute in Canada over four murals posted on a public building for the past sixty-five years. The scenes depicted are related to the founding of the British Columbia colony by the British in the 19th century, and one of them depicts the construction of a fortress (Fort Victoria) by the natives, an event considered as the beginning of the city of British Columbia. The murals were constructed by the federal government of Canada in 1932. The controversy stemmed from the fact that the so-called ‘First Nations’, the natives of the area, demanded the removal of the murals because they depicted them in humiliating, or at least unequal terms in comparison to other Canadian citizens.

Seixas and Clark raise the following question: what happens when a monument is erected in the public space of a city, and inevitably acquires a permanent character (ie not easily removed), does not express the younger generations? The monument in Canada reflected a colonial mentality that could not be tolerated in the 21st century, when the controversy broke out. Seixas and Clark gave the above controversy as a ‘problem’ to 553 students asking them, first, to identify controversial elements in the four illustrations, and second, to argue about how the dispute should be resolved.

Another example is that of the Romanian politician and military man Jelačić (1801-1859) who, while promoting the idea of Croatian nationalism (and the unity of all South Slavs) against Hungary, and he even abolished the feudal system in Croatia, he nevertheless allied with the Austrian emperor against the Hungarians in 1848. His statue was erected in the central square of Zagreb in 1854, and remained there until 1947, when Tito’s troops arrived were in Zagreb and removed the statue, changing

the name of the square. During the Croatian ‘spring’ of 1971, the inhabitants of the city demanded the return of the monument and we have many references to Jelačić. The monument eventually ‘returned’ in 1989. Rihtman-Augustin, who tells the story of the ‘Monument in the central city square’, interprets the demand for the return of the statue as a ‘symbolic act for the return of democracy’. She points out:

*“The names of the streets together with the monuments and the commemorative plaques in the urban landscape contribute to the semantic function of the dominant ideology because they give the urban architecture a particularly symbolic content. Especially the naming and the renaming of the streets ...”* (Rihtman-Augustin, 2004, p. 180).

A similar case would be the statue of Truman in Athens, which has gone through various ‘adventures’, each time reflecting the fluctuations of pro-Americanism or anti-Americanism in Greek public opinion and politics: according to a news report it was vandalized even ‘demolished’ in years 1971, 1986, 1997, 2007, as a protest for the American intervention in Greek politics. It was put back each time, usually after the protests made by the AHEPA (American Hellenic Educational Progressive Association), who had donated it to the Greek state and in 1999 due to Clinton’s visit. At the back of the statue was an inscription:

*“To Harry S. Truman to express [our] gratitude for the doctrine he proclaimed as President of the United States of America on March 12, 1947, and because he helped the Greek people defend their Freedom and National integrity ...”* (my translation from Greek).

There is probably no other inscription or political figure more controversial for the post-war period in Greece. The Truman Doctrine mentioned in the inscription, was the beginning of a policy that divided not only Greece but the entire world at the time: Civil War in Greece and the Cold War for the world.

The final example is from the display of the Archaeological Museum of Ioannina (Western Greece); visitors are exposed to the experts’ dilemma about the identification of a location in Thesprotia and whether the remains refer to the Acheron necromancer or a Hellenistic country house (Kotzabopoulou, 2018, p. 23). The case equally refers to the provisional character of the archaeological interpretations and the type of the specific museum. As Kotzabopoulou remarks, *“the museum [at Ioannina] emplaced interpretation at the forefront, as a modal constituent in theory and practice processes, in museums, as much as in archaeological production”* (2018, p. 25).

The above cases were cited as examples of how students could become familiar with historical concepts such as multiperspectivity, with reference to public history cases and especially the monuments of the environment where students live: the changes in the use of public buildings and the attitude towards monuments as well as street names can be considered as cases of historical narratives that change from time to time, and these changing historical narratives are suggested by well-known history

educators as the means for the students to realize the non-definite character of historical accounts, also a typical element of the discipline of history (Stradling, 2003, pp. 32-33; Cooper, 2012, p. 34).

## **Conclusion in Relation to the Use of Material Culture in History Education, Where Archaeology and History Meet**

With the above, an attempt was made to demonstrate the contribution of material culture in general and of museums and archaeology to the familiarization of history students with the historical methodology of professional historians, their integration into exploratory processes, and finally their awareness of the interpretive character that exists both in the processes of understanding and representing the past.

Objects, monuments, landscape sources and archaeological processes, attract the interest of students due to their materiality and the immediacy of the multisensory experience they provide. Additionally, because of their 'closeness', the absence of text and therefore any 'ready' narration, objects leave room for alternative interpretations by students and their familiarization with the hypothetical and provisional nature of historical and archaeological accounts. Finally, current controversies over monuments, street names in cities and archaeological museum displays, constitute 'tangible' and easily accessible examples in relation to the complexity of historical and archaeological interpretation as well as the changes in historical understanding and the significance of the past in present. The above controversies are examples for students of the changing historical narratives that express the historical consciousness of each era. As for archaeology, and from a pedagogic point of view, we meet the same epistemological challenges as in teaching history: there seem to be many archaeology projects for students or public archaeology projects: the important would if the participants were not only immersed in the activist simulation of excavations, but also got familiar with the interpretive and controversial character of the discipline of archaeology, which includes the evaluation, contextualization, preservation and display of the relevant findings.

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## DEVELOPING HISTORICAL THINKING IN A HIGH SCHOOL CLASS AT AN ARCHAEOLOGICAL SITE

### Abstract

What can we learn from the physical remains of the past? Today, the public has access to numerous historical representations and narratives via diverse media, including historic sites and museums. Studies in the United States, Europe, and Canada show that students (and adults, including history teachers) have great faith in museums and historic sites: they believe that the historical depictions are truthful and objective. However, these media are not neutral. They consist of constructed narratives that are interwoven with the national identity and collective memory, among others. How can teachers make use of these media to help students develop citizenship competencies in a complex and changing world? North American studies tend to show a predominance of narrative frameworks in history teaching practices. However, this practice is inconsistent with the critical historical thinking that we want students to develop. In this chapter, we propose an approach that engages 16- and 17-year-old students in an analysis of artefacts, including historic sites, to draw interpretations of both past and present.

**KEY WORDS:** HISTORY EDUCATION, HISTORICAL THINKING, ARCHAEOLOGICAL REASONING, HISTORICAL INQUIRY, ARTEFACTS, HISTORIC SITES.

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## DEVELOPING HISTORICAL THINKING IN A HIGH SCHOOL CLASS AT AN ARCHAEOLOGICAL SITE

### Introduction

Strolling along the ancient streets of Pompeii, clambering up the tiers of the Roman Colosseum, crossing the Propylaea of the Acropolis to stand before the Parthenon, attending a vocal performance given by a tourist at the theatre in Epidaurus: these activities impart the illusion of direct contact with history itself. However, it is anything but a direct experience of the past. Instead, it is a mediated experience that may or may not encourage us to reflect on what these sites meant back then and what they mean today for the societies that preserve and showcase them. By mediated, we mean that an intermediary interpreted them to serve the understanding or transmission of a historical, archaeological, technical, or scientific objective. In this context, is it possible to grasp the real significance of these historic sites? What message is being sent? What are they trying to convey?

Baron (2012) argues that historians treat historic sites as documents to be interpreted, whereas teachers consider them as opportunities to illustrate history to their class. What do they mean to students? How can we appropriate these remains of the past today, or can we? Noel and Colopy (2006) point out that most teachers who prepare and supervise school outings to museums rely almost entirely on the museum's guides and resource materials. Although high school history teachers consider historical museums as useful sources for history teaching, they do little planning for their outings (Marcus, Levine & Grenier, 2012). These authors explain that teachers, especially high school teachers, must cope with logistic and pedagogical obstacles in order to engage their students in an approach that culminates in an outing to a historic site. In the province of Québec, Canada, the majority of high school teachers (78%) said that they seldom, if ever, included visits to historic sites in their teaching practices (Boutonnet, 2013). Yet social science programmes emphasize (*pro forma*) the acquisition of historical thinking skills. The capacity to think historically is acquired by reading and interpreting primary and secondary sources and by applying heuristic analysis (sourcing, contextualization, corroboration, and close reading). According to Wineburg (2001), these cognitive processes enable historical inquiry and problem solving.

Against this background, what is an effective approach to the exploration of historic sites for history teaching? This is the general question to which we respond in this chapter. We begin by advancing the potential usefulness of historic sites for history teaching and learning. We then propose tools that can serve as reading keys to help

students examine and appraise historic sites as primary sources. Finally, we present an account of the approach in practice: a history course in which a group of high school students in the Greater Montreal Area prepared for a 12-day visit to historic sites in Greece.

## Teaching with Archaeological Evidence: The Historic Site as a Resource

In Canada and many European and North American countries, history is studied through a critical analysis of documents. In this chapter, we will focus our attention on a particular type of document: the historic site. Many authors extol these sites as opportunities to engage students in the study of history (Baron, 2012; Baron & Dobbs, 2015; Crocco, Halvorsen, Jacobsen & Segall, 2017; Marcus, Stoddard & Woodward, 2017; Trofanenko, 2016). As they explore the archaeological site Akrotiri at Santorini or meander through the Olympian columns at Athens, to name just a few, visitors are amazed and impressed. They realize that the present is connected to the past, and as they engage emotionally and cognitively, they develop a sense of historical empathy (Barton & Levstik, 2004). However, it is not necessary to travel thousands of kilometres to stand before historic sites. Students and teachers pass such sites daily on their way to and from school (Baron & Dobbs, 2015).

Historic sites are relevant for history teaching and learning insofar as students, teachers, and the public at large believe that they are trustworthy and authoritative historical sources (Angvik & Von Borries, 1997; Charland, 2003; Conrad, Létourneau & Northrup, 2009; Marstine, 2006; Rosenzweig & Thelen, 1998). Falk and Dierking (2000) add that people generally feel that historic sites are objective and authentic sources of the past. According to Marcus, Levine and Grenier (2012), the great trust that teachers have in history museums influences the teaching activities that they select for classrooms and outings.

However, many studies have demonstrated that historic sites and history museums are not neutral spaces (Gosselin, 2011; Loewen, 1999; Trofanenko, 2006, 2016). The narratives that are attached to these sites, whose purpose is to connect the past to the present, reflect bygone phenomena, characters, and realities that are influenced by economic factors, political circumstances, and social pressures (Loewen, 1999; Trofanenko, 2016). For Pierre Nora (1984-1992), in his three-volume collection *Les Lieux de mémoire (Realms of Memory)*, the historic site supports a discourse that is continuously constructed and renewed according to the interests of the time (termed *slippage*). Hartog (2012, p. 174) adds that the only places left with any life in them have been taken over, revisited, remodelled, and repurposed. In this reinterpreted state, a memorable site becomes merely the memory of a site, at best. These sites provide ideal opportunities for students to examine how our preoccupation with the present has been privileged over reverence for the past.

For example, in a recent study on the narrative interpretations of historic American sites, Loewen (1999) reveals the motivations behind the historical knowledge that institutions and societies transmit. Little or no place has been given to the contexts in which historic sites have been preserved. The messages shine a positive light on the events, ideologies, and characters that are commemorated in American history, establishing them as legitimate conveyors of the collective memory. Roving across the United States, Loewen (1999) describes these sites as hucksters of one-dimensional interpretations that airbrush or outright cover up more complex historical realities. According to Trofanenko (2006), these historic sites may be more accurately viewed as knowledge production sites.

In this sense, just like written and pictorial sources, historic sites are sources of history that must be critically analysed. What all historic sites have in common is that they are the fruit of the decisions to build them at a given point in time, decisions to abandon or transform them through the years, and decisions to preserve them for future generations (Baron, 2012). For Baron (2012), historic sites represent layers of texts that we must question and interpret in order to grasp the elements that constitute them, from the time when they were first built up to their present-day preserved form.

In sum, the research is compelling on the potential utility of historic sites for history teaching and learning. Moreover, while mindful of the fact that museums are not neutral spaces, and that they act as authorities in matters of preserving and showcasing historic sites, it is worthwhile to examine the narratives used to portray past realities. These first points led us to reflect on the skills that students must develop to be able to read historical sources critically. Collingwood (1993) and Baron (2012) warn us that the remains of the past do not offer ready-made teaching solutions. Accordingly, we must consider ways to mobilize the intellectual processes that will enable students to comprehend the documentary value of these sources, and that will contribute to prepare engaged and autonomous citizens with the ability to think critically.

## **Historical Thinking and Archaeological Reasoning**

Students are familiar with certain local, national, and international historic sites, but how do they interpret them? The research to date on history didactics rarely considers historic sites as historical objects for students to interpret and read critically by means of the appraisal methods that are associated with historical thinking (Baron, 2012; Baron & Dobbs, 2015; Demers et al., 2016). However, when students find it difficult to contextualize historical documents (Nokes, Dole & Hacker, 2007), a historical interpretation of the site (Baron, 2012) can allow them to approach these sources as they do for other types of documents, in a manner that is neither decontextualized nor disembodied nor authorless (VanSledright, 2004). Moreover,

a historical analysis lets students with reading problems apply historical thinking without interference from grammar and syntax problems (Baron & Dobbs, 2015; Nokes, 2013).

Many authors have proposed teaching strategies that incorporate text and pictorial sources to foster critical thinking (Doull, Russel & Hales, 2019; Mac Austin & Thompson, 2015). However, these strategies do not lend themselves wholly to historic sites. With respect to teaching strategies that make use of historic sites, we believe that Baron's (2012) proposals open pathways to mobilize the cognitive processes that historians employ to analyse and interpret historic sites.

First, Baron (2012) hypothesizes that expert historians read historical texts and spaces differently from the ways that novices do. Thus, certain sources may require appropriate reading keys. In the wake of Wineburg's (1991, 2001) works on the thinking operations that historians use to analyse text and pictorial sources, Baron (2012) proposes a model derived from actual historical readings of historic sites. The author asked five historians to describe how they read The Old North Church, a historic building in Boston. Based on her observations, and in a departure from Wineburg's (2001) theoretical procedural model, Baron (2013) proposed a series of five heuristic constructs that were used in their analyses (Table 1).

| Wineburg's model (2001)  | Baron's proposed model (2012) |
|--------------------------|-------------------------------|
| <i>Sourcing</i>          | <i>Origination</i>            |
| <i>Corroboration</i>     | <i>Intertextuality</i>        |
| <i>Contextualisation</i> | <i>Stratification</i>         |
|                          | <i>Supposition</i>            |
|                          | <i>Empathetic Insight</i>     |

**Table 1.** Models of historical thinking used by expert historians to read historical documents.

In Baron's (2012) model, *sourcing* becomes *origination*, or the thought process by which the historians were able to identify the circumstances (time, setting, stakeholders) in which original building was constructed. *Corroboration* is replaced by *intertextuality*, which means situating the building in a field of related buildings and checking its features against a prior understanding of other such buildings.

Wineburg's *stratification* yields to *contextualisation*, or situating the layers of evidence in terms of various strata through time: place, political events, religious and social conditions, and so on. Thus, the individual objects and elements of the church were considered within the most appropriate layer. Baron adds two further heuristics that

about half the historians used: *supposition* (in the face of irreconcilable evidence, drawing on the available evidence and prior knowledge to make inferences and solve problems) and *empathetic insight* (putting oneself in the shoes of the people of that period; considering their beliefs, motives, and emotions). These heuristics are summarized in the Historical Thinking Framework for Buildings (HTFB, Table 2).

| Stratification  | Origination   | Intertextuality   | Imagination or supposition  | Empathetic insight   |
|---|---|---|---|--|
| Placing the layers of evidence within the proper strata of time and social conditions | Situating the building within a series of historical contexts (economic, social, religious, geographic) | Comparing the building's architecture and functions against a prior understanding of related buildings of the same period | Lacking solid evidence, inferring a sense of the period and proposing plausible historical hypotheses | Placing oneself in the shoes of the people who lived then and were associated with the building to varying extents |

**Table 2.** Historical thinking framework for buildings (Baron & Dobbs, 2015).

This analysis framework provides a promising blueprint for analysing historic sites and acquiring disciplinary learning. We therefore developed operational questions that corresponded to each thinking process to help the students interpret historic sites, from their original construction to their contemporary functions (Table 3).

| Stratification  | Origin  | Intertextuality  | Imagination or supposition   | Empathetic insight   |
|---|---|--|--|--|
| Does this site have pieces of evidence (clues and indicators) that belong to different historical strata, and what do they tell us about its history? | Why was this building/site constructed at this location? For whom? For what purpose? How was it built? What materials were used? Where did the materials come from? | Is this building similar to other buildings of the same period? Of another period? | In the absence of precise information at the site, what do you think life was like in this period? | How did people experience the events that took place at this site? |

**Table 3.** Operational questions corresponding to the HTFG heuristics (Baron & Dobbs, 2015).

We designed these operational questions to underscore the connections between trace materials and the societies that produced and used them. This connection invokes Webmoor's (2007) *archaeological reasoning*, also known as *symmetrical archaeology*. The principle of symmetry proposes that humans and non-humans are not ontologically distinct. In this perspective, humans and things (e.g. artefacts, historic sites) are perceived as historical agents that are mutually influent. Thus, humans do not take precedence over things (Webmoor, 2007). For historic site analysis, the advantage of a contextualized approach that considers both types of historical agents (humans and things) is that it allows shifting the focus away from human agency (or actions) as the primary research concern.

Baron (2012) and Baron and Dobbs (2015) remind us that each and every element of a historic site was produced as a result of human decisions, and that all historic sites represent human history. Therefore, in order to foster reflection on the interactions between society and the material world, which includes nature, we adopted a symmetrical archaeological approach to help the students identify plausible reasons and propose hypotheses for the choices surrounding the construction, preservation, and showcasing of the sites.

In sum, we believe that an approach that combines Baron's (2012) framework for historic site analysis with an archaeological reasoning approach based on interactions between the natural and human environment would encourage students to construct their disciplinary knowledge. Marcus, Stoddard and Woodward (2017) and Guay (2010) stress the importance of the teacher's guiding role in this type of classroom approach. Consequently, we decided to present a teacher's account of the approach in practice. We describe a didactic sequence (i.e., a set of learning activities) that makes use of historic sites as primary sources for history learning. The activities are drawn from projects initiated by the education specialist Luc Guay from the 1970s to the early 2000s. They were also informed by Professor Guay's extensive experience in organizing and supervising high school and university trips to historic sites.

## **History Lessons and the Role of Inquiry in Class: A Teacher's Account**

A disciplined inquiry approach (Bruner, 1960) was used for the didactic sequence. This historian's method provides the grounding for the preparation phase prior to the site visits in Greece. In addition, the literature on historical reading of documentary sources indicates that a basic knowledge of history would be important for source interpretation. But what basic knowledge, and to teach what? On our trips with students to historic sites, we have observed that it is hard for them to appreciate museum narratives when they are ignorant of the circumstances in which the sites were built. Therefore, to help the students construct their historical and disciplinary knowledge, it was necessary to prepare them for the visit by engaging them in a disciplined inquiry approach.

We present below the structure of the preparation phase of a didactic sequence for a travel history course that would take twenty-three high school students on a voyage to historic sites in Greece.

## **Context**

Since the 2013-2014 school year, the travel history course has been offered to secondary four and five (aged 16-17 years) students upon their return to school at the beginning of September. About 600 students attend secondary one to five at this French-language school in the Greater Montreal Area. The school is a private mixed college in which the majority of the students have advantaged socioeconomic backgrounds.

Students can apply to course by submitting a motivation letter outlining their reasons for opting for the course. This letter is the main selection criterion. In the 2019-2020 school year, 23 students (11 girls; 12 boys) enrolled in the course.

The course is scheduled somewhat differently from the other academic courses. The students attend two 30-minute sessions per nine-day cycle during regular school hours. In other words, the history teacher responsible for the course (the first author of this chapter) works with the students in a classroom for one hour per nine-day cycle. The academic year is divided into 20 cycles (from September to June), which corresponds to 19 course hours: 14 hours for the preparation phase and five hours for the reinvestment phase after the trip.

To recap, the travel course to Greece is essentially delimited by the academic calendar (in this case, the 2019-2020 school year). The didactic sequence spans the three phases: preparation (October to April), on-site learning (April), and reinvestment (May and June). In this chapter, we present the teaching and learning strategies used in phase one: preparation.

### **Step 1: Choice and Construction of a Learning Object**

“No problems, no history” (“*Pas de problème, pas d’histoire*”) captures the views of Lucien Febvre (1992) in a nutshell. The choice of our teaching approach was influenced by the scientific method used by expert historians. Accordingly, to foster engagement in this active approach to history learning, each student is given some responsibility to prepare a research problem. In the Québec Education Plan, this is referred to as a *research question* (Québec, 2006, pp. 294-324).

In early October, the students are issued a list of all the historic sites that they will visit in Greece. They then draw lots to take turns choosing a site that they are particularly interested in or would like to study. The itinerary included several sites, all of which the supervising teacher has visited previously. Once the students make their choices, they enter the first step of the inquiry: construction of a learning object, in this case, their own history topic.



Historians do not simply observe and contemplate traces of the past: they interrogate the past in light of present-day concerns. So, what do the students want to know about their learning objects? Why should they be interested in a given historic site? What can these sites tell us about the societies of yesterday and today? *“The purpose of teaching history at school is not to make students memorize a simplified, student-friendly version of the academic knowledge produced and constructed by historians, nor to ensure that they acquire factual learning of an encyclopaedic nature”* (Québec, 2006, p. 295). In the Québec social sciences programme, history courses are designed to *“enable students to develop an understanding of the present in light of the past”* (Québec, 2006, p. 295) and to help them become autonomous, informed citizens who can participate fully in society (Éthier, Cardin & Lefrançois, 2014). Accordingly, our first teaching strategy is consistent with the development of the following disciplinary competency: inquiry into the social world from a historical perspective.

To achieve this target competency, the inquiry from a historical perspective follows a three-pronged approach: 1) looking at historical facts and asking questions about their origin, the context in which they emerged, and the beliefs and values of the time; 2) considering the facts in terms of their duration, change, and the visible traces that remain today; and 3) taking into account the complexity of situations and seeing them as a whole (Québec, 2006, p. 302). Although the historical perspective is interpreted differently by different authors, the common concepts lend themselves well to the analysis and interpretation of historic sites. Seixas and Morton (2013) describe the historical perspective as the ability to see oneself through the eyes of people who lived in bygone times and in completely different circumstances. Levstik (2001) defines historical understanding as the ability to make sense of both *how* and *why* people behaved as they did in the past.

The course is designed in the assumption that historical facts should be examined systematically and considered from a historical perspective. Therefore, facts should be viewed in terms of duration, change, and continuity. Similar to the concept of problematization for historians, the examination of facts from a historical perspective is consistent with the bases of historical scholarship. Consequently, it is important to explain to the students that the study of history requires looking at traces of the past in light of present-day preoccupations. In this way, the historical perspective promotes awareness of one’s own subjectivity and fosters a shift towards objectivity. To borrow from the historian Prost (1996), historical knowledge is conceived as indivisibility between the subject (present) and the object (past).

We now return to the construction of the learning objects in class. The students, as aspiring experts on their chosen topic, come to the front of the class and select one or more images of historic sites posted on the wall that represent their learning object (i.e., history topic). Acting as a guide and mentor, the teacher helps them

identify the images. The students then collect their images and get to work developing their ability to analyse the images, and progressively to raise relevant research questions about their history topic. To assist the students, this informal inquiry is supplemented by a writing assignment to be completed over the next few classes.

The teacher hands out a document divided into five parts, starting with 1) the reasons for their choice of topic; 2) an outline of their basic knowledge of the historic site, as a partial indication of their social representations; and 3) their first impressions of the images they choose. In addition, inspired by Yenawine's (2013) ideas on *visual thinking strategies* (VTS), the students are asked to describe, think about, and ask questions about the historic site. They then proceed to complete the table provided in the document. They write down what they see in the images, what they think about the site (e.g. its function, building materials and methods), and what questions they have about it (e.g. elements that they don't understand or want to know more about).

This latter VTS task ("*I wonder ...*") elicits their curiosity about their topic and their desire to know more about both past and present societies. Next, 4) the students develop their research questions, which serve as a starting point for their historical inquiry. Finally, 5) the students formulate one or more hypotheses that respond to their research questions. They can also change their research questions as they read more information and identify more indicators. The students are responsible for coming up with their own questions about the historic site, and in the process, for finding out what they want to know about ancient Greece. The idea is not to construct a research question for its own sake, but to spark curiosity. What was life like back then? How do we know? How accurate is that knowledge, and what are its limitations? Once the assignment is completed and handed in, the teacher provides written feedback to help the students construct appropriate research questions. The teacher also explains how to identify time indicators to situate the inquiry within a given period.

In sum, this step of the historical inquiry, which is more informal, is meant to engage the students in an inquiry approach. Later, in phase two of the course, when they visit the sites in Greece, they will be able to act like expert historians. Having chosen their historic site, decided on their history topics, and developed their research questions, they are ready to identify the indicators and evidence at a historic site that can justify their proposals for oral presentations.

## ***Step 2: Learning to Read a Historic Site***

In the second step of the inquiry, the students are guided through a structured investigation. To find the answers to their research questions, they must apply the

historical method. They accomplish this in two ways: 1) establish the facts by documenting, selecting, and organizing facts based on an examination of an actual historic site; and 2) explain the facts in relation to certain identified aspects of the historical context. This approach approximates the methods that historians use to construct historical knowledge. In this case, the students conduct a historical inquiry of an actual building (the learning object) and the associated sources. However, before making a critical analysis of a historic site, one must know how to read it.

To help the students critically analyse a historic site, the teacher uses guided practice. First, the teacher models the task. In this case, Baron's (2012) heuristics are applied to interpret a historic building, starting with an image of the school's exterior projected onto a screen. The teacher poses a question that appears at the bottom of the image: what does the school's architecture tell us about its history since 1964? The onion skin analogy is invoked to describe the role of the building's strata or layers (from the outer coating to the foundations) and to identify indicators that reflect decisions made since 1964. Because an analysis of the building's image has only a limited capacity to respond to the research question, the teacher guides the class on a tour of the school's familiar and lesser known areas. The tour is presented as a kind of mystery quest, with a search for clues (i.e., indicators). This whets the students' appetite to explore the building with fresh eyes. It is also an opportunity to awaken the students' sensibilities in preparation for the analysis of their learning object when they travel to Greece. This part of the enquiry process is based on the approach proposed by Baron and Dobbs (2015) for interpreting historic buildings.

The tour begins with *stratification*, the heuristic method that the students must use to identify indicators of the building's different historical periods. The teacher guides the students to inspect the building and ask questions at each stop along the tour. For example, how did the building come into being (e.g. building materials, design, site location, spatial arrangements, functions)? Next, the students are asked to think about differences and similarities between the building and others that they have seen, visited, or frequented, and to justify these comparisons (*intertextuality*).

Throughout the tour, the teacher questions the students about the layers of time that they can identify, what the building reveals about the beliefs of the religious community that ran the original religious school, and what it might have been like to live there. This gives them some insight into why people lived that way and how it met their needs (*empathetic insight*). Finally, the teacher asks some questions to help them formulate explanatory hypotheses for the religious community's choices in the building's construction and for the lay administration's decisions on renovations and expansions since the 2000s (*supposition*).

Back in the classroom, the teacher leads a wrap-up discussion of the activity and distributes a written plan. The plan outlines each heuristic that was used and suggests

operational questions to guide the rest of the inquiry process. The teacher explains to the class that in order to confirm or disconfirm their answers and hypotheses, they must seek, find, and process information from all available sources. For purposes of the historical inquiry in Greece, the most obvious sources are books in the school library and online sites.

For their documentary search, the students must find sources that respond to their research questions. They must also justify their choices by describing how the sites were useful for their inquiry. To complete this task, they write down their findings and justifications in the same document used in inquiry step one and hand it in. The objective is twofold. First, it immerses the students in reading about their history topic. At the same time, they can change or strengthen their research questions should the resources turn out to be few or non-existent. Second, this method allows the teacher to provide written feedback to encourage them to pursue their path, and to point to additional sources that could shed new light on their topic.

In sum, step two consists of a structured inquiry in which the teacher acts as a guide and mentor (Lenoir, 1991). The aim is to equip the students with the tools they will need to interpret a historic site and perform a documentary search. In step three, they respond to their research questions and present a summary of their historical inquiry to their classmates.

### ***Step 3: Inquiry Summary and Acting as an Expert on Site***

In the synthesis step, the students complete their inquiry by establishing connections between their original hypotheses and their research findings. To do so, they write up a summary of their inquiry on the same document used for steps one and two. They situate their learning object in time and space and they describe the circumstances that characterize the political, economic, and sociocultural context in which the historic site was built, along with the uses it served at that time and over the years.

This step of the inquiry process is also guided by Baron's (2012) heuristics. When the students have completed their inquiry, they confirm or disconfirm their hypotheses based on the information they compiled. They also describe any discrepancies they noted between their first impressions of the site in step one and the conclusions they drew following the inquiry. In addition, they are asked to reflect on the overall approach and to discuss the obstacles they encountered (e.g. site analysis, documentary search) as well as the solutions they found to overcome them.

This step of the inquiry may be described as regulated structuring (Martel, 2018). The objective is to get the students to select and analyse the information that they find and to objectify their learning. This is an essential step that enables them to reconcile their initial understanding with a more informed understanding gained through the inquiry process. By facilitating their capacity for hindsight, the teacher equips them to revise their representations and knowledge on an ongoing basis. The students complete this step by handing in a written report. The teacher then provides feedback two weeks before the trip to prepare them for the on-site presentation.

Once they arrive at Athens, Delphi, Mycenae, and Epidaurus, near Distomo and Santorini, the students will act as historical experts at each of the sites. Their mission is to present a summary of their inquiry from step one to step three. Using an individual approach, each student takes the class on a guided tour to inform them about the site and the context in which it was built. At the end of the presentation, the teacher lets the students wander at will and gather their own impressions. At this point, the image of the site that the authorities are presenting influences the construction of knowledge. Sometimes a local guide provides some new information that the student experts had not heard before. Either as a group or with a professional guide in attendance, the visit always ends with a discussion meeting. The teacher takes a few minutes to ask the students questions. What did you discover or learn during the visit? How was the history of this site presented? What did the site authorities want to tell you about its past? What indicators make you believe that? Why do the authorities want to protect and preserve this historic site? What indicators make you believe that? Did you see any differences or similarities between what your classmate (and perhaps the guide) presented and what you see (or don't see) at the site? What indicators make you believe that? These discussions don't have to be very long. The important thing is for the teacher to take some time at the end of the trip to get the students to think about how present-day historic sites maintain national narratives, national identities, and collective memories. Therefore, the students should be asked whether Québec's historic sites play a similar role. Due to the COVID-19 pandemic, the 2020 trip to Greece had to be cancelled. At the time of writing this chapter, the first author was working on ways to facilitate a virtual class visit.

To summarize, this final step involves regulated structuring (Martel, 2018), which enables the students to present the results of their inquiry while gaining an awareness of the learning they acquired through this approach. In addition, the students construct their own knowledge about a historic site prior to the actual visit. We believe that this process fosters the capacity to critically analyse historic sites, which are considered authoritative sources of historical knowledge. This site-based inquiry approach actively engages students to develop disciplinary knowledge and equips them with critical analysis tools. Furthermore, it can enrich teachers' pedagogical practices (Baron, Sklarwitz, Bang & Shatar, 2018).

## Teaching History with Historic Sites and Professional Development

For several years now, Québec's history teachers have been offered professional development programmes involving visits to historic sites. The aim is to promote a deeper knowledge of history and to improve teaching practices. Funded by private and institutional foundations, these programmes are affiliated with associations of university history teachers. They reach a limited but significant number of teachers: in the United States, thousands of teachers take such training programmes each year (Stoddard, 2018). However, it is difficult to measure the real influence of such programmes on individual teachers' classroom practices (Stoddard, 2018).

On this subject, a study by Baron et al. (2018) in 29 teachers offers avenues for reflection on the methods proposed in this chapter and the role that historic sites can play in professional development. First, the testimonies of teachers who attended a training programme at Monticello, Thomas Jefferson's ancestral home, corroborate the above-presented results on the perceived reliability of the facts as presented by historic site authorities. Baron et al. (2018) hypothesize that the teachers were not used to considering historic sites as sources that they could read and interpret for themselves. This meant that they were largely willing to accept the official representations of the site as truthful. At the same time, repeated exposure to the site raised more and more questions about historical issues, leading to shifts in their thinking. For example, some teachers mentioned that the guide's descriptions of the slavery system forced them to reconsider their understanding of that historical period. This demonstrates that a historic site can also serve to illustrate a broader social reality.

In practice, teachers rarely lead student discussions about how history is depicted at historic sites. Furthermore, to be effective, this kind of history teaching requires some preparation (Marcus, Levine & Grenier, 2012; Baron et al., 2018). For example, many authors recommend that teachers visit the sites before bringing their students. They should also prepare their students beforehand with learning activities that develop the prescribed social sciences competencies (Allard & Boucher, 1991; DeWitt & Storksdieck, 2008; Larouche, Burgess & Beaudry, 2016; Meunier, 2018). To do so, we recommend an inquiry approach that engages students to apply historical thinking to interpret historic sites. A further issue is that some teachers may not consider the construction of historical knowledge relevant. In fact, the research shows that the epistemological position of teachers influences both what they teach and how they teach it (Doussot, 2019). It remains to be seen whether teachers genuinely learn when their representations of the discipline change, and whether or not this change translates into practice.

## Conclusion

This chapter proposes a theoretical and methodological approach to history teaching through the interpretation of historic sites. In this account of the application in practice, each element was designed to guide students to conduct an autonomous inquiry. We consider historic sites as documents to be interpreted, like text and pictorial sources. The great trust that is generally accorded to historic sites obliges us to find ways to analyse them critically. Accordingly, we believe that, prior to visiting a historic site, students should be prepared through a structured inquiry process. This will equip them to do active learning at the site and to decode the historical messages that are transmitted there.

We believe that engaging students to think historically will help prepare them to become autonomous citizens with the ability to think critically. In a society that is inundated with information via an onslaught of media, the same intellectual processes that are used to analyse documents need to be applied on a broader scale. Like VanSledright (2004), we feel that “good historical thinkers [...] know what it means to build and defend evidence-based arguments because of practice constructing interpretations rooted in source data” (VanSledright, 2004, p. 232). We hope that this inquiry approach will enable students and teachers alike to more fully appreciate historic sites as witnesses of a bygone past, and to strive for a better understanding of history. The traces of the past, being fragmentary by nature, must be interpreted with caution.

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**ORGANIC HISTORICAL REASONING: AN EXPLORATION  
OF HOW NON-SPECIALIST STUDENTS CAN CONNECT,  
THROUGH HISTORICAL AND ARCHAEOLOGICAL ARTEFACTS,  
WITH THE PEOPLE WHO MADE AND USED THEM**

**Abstract**

This chapter draws on a study (Moore, 2019) which explored valid ways in which non-specialist trainee primary school teachers used material culture artefacts to make connections with people who lived in the past. It considered the problems caused by the concept of historical empathy and constructed a new concept, Organic Historical Reasoning, as the natural process by which students make such connections. The study first constructed a model of this concept based on recent literature, then undertook a process of research into student responses to material culture artefacts and finally related the model based on the literature review to the model derived from empirical research to posit the new concept. This chapter discusses the literature related to understanding people in the past through material culture artefacts, supported by some examples of how it is reflected in the empirical research.

**KEY WORDS:** ARTEFACTS, HISTORICAL EMPATHY, ORGANIC HISTORICAL REASONING, PRIMARY SCHOOL TRAINEE TEACHERS, UNDERSTANDING PEOPLE'S LIVES IN THE PAST.

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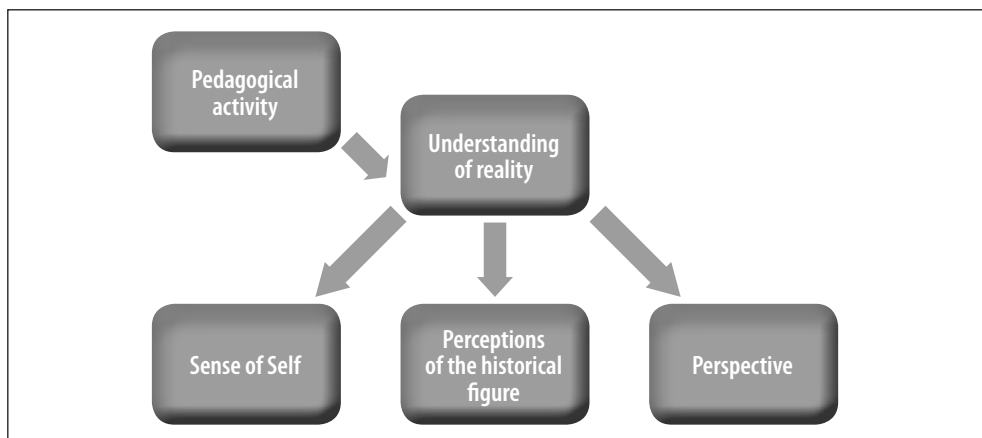
# ORGANIC HISTORICAL REASONING: AN EXPLORATION OF HOW NON-SPECIALIST STUDENTS CAN CONNECT, THROUGH HISTORICAL AND ARCHAEOLOGICAL ARTEFACTS, WITH THE PEOPLE WHO MADE AND USED THEM

## Rationale for the Study

The study (Moore, 2019) was part of a programme of research to understand the natural thinking of students about past lives. It represented the culmination of nearly thirty years of personal work and experience in the teaching of history in schools, museums and universities. Having worked in museums which featured strong archaeological collections I had observed that students thought differently about past lives when they worked with material culture artefacts. Consequently, I undertook this study which led to the construction of a model to explain how students formed valid connections with people who lived in the past. I termed the resulting model as Organic Historical Reasoning (OHR) (Moore, 2019).

## The Concept of Organic Historical Reasoning

Organic Historical Reasoning (OHR) is offered as a more complete understanding of the process of natural thinking about past lives than historical empathy. This is because OHR is constructed through forming an understanding of psychological empathy and other mechanisms that help us to think about past figures. Figure 1 shows the model of Organic Historical Reasoning which evolved from the study data.



**Figure 1.** Representation of OHR as arising from the study data.

In this study the *understanding of reality* (a feeling that people connected with an artefact had once lived, as we do today) was prompted by making use of genuine material culture during *Pedagogical activity*. This in turn led to natural thinking which appeared to demonstrate a *Sense of Self*, *Perceptions of the historical figure* and a sense of *Perspective* in relation to the past figures.

Thus, pedagogical activity through using artefacts appeared to lead to an increased awareness that the past was real. For example, participant no. 5 tried to explain how the artefacts made the past real: *“I quite like (historical) story but then actually seeing the things makes it real compared to just hearing the story and it just being just a story, just always makes it look real do you know what I mean? Seeing things that are related.”*

The students also gave a sense that they saw themselves in relation to the historical figures they were encountering through the artefacts. This was termed a *Sense of Self* in the model of OHR. In this category the research participants often made unprompted remarks about themselves in relation to their grandparents. No. 11’s words seemed to be fairly typical in this respect: *“Umm I was thinking of my granddad, his dad was a prisoner in a Japanese war camp, yeah so he found all his diaries. It was only a couple of years ago and it went in the papers down there and everything, and that kept coming into my head. When I was a kid I remember my granddad showing us all these, you know all these diary entries and it didn’t particularly make me feel more sad or more sort of connected or anything but that did keep popping up in my head thinking, wow – you know.”*

The students similarly demonstrated that they were aware of the historical figure. This was termed, *‘Perceptions of the historical figure.’* This perception appeared to occur in different ways which made limited use of the imagination. The students sometimes visualised the figure as being connected with the artefact, imagined a presence or deployed empathy either historical or psychological. As an example, this is participant no. 3 discussing a Cumbrian Neolithic polished axe. She gives a sense that she has thought about the figures who created it: *“I like the craftsmanship on the axe actually it means that you can you know history for me...”*

Some of the material culture artefacts appeared to prompt students to see historical figures as human beings who faced similar struggles to those that we do today. One type of this thinking was where students made comparisons or shared similar experiences with past lives. This is no. 3 again, this time, discussing the Egyptian 18th Dynasty necklace: *“Emm I suppose because it’s familiar but different, you know it’s almost like something we find at the seaside today isn’t it sort of umm. I don’t know, I like the colours.”* No. 3 later went on to explain: *“Oh, and the colours, you know you sort of associate (with it) don’t you with the colours – and I saw it as Egyptian.”*

The students also gave a strong and unprompted sense of natural ‘historical perspective’ whereby they often expressed an awareness that they could not think themselves into the minds of past figures. Such a feeling was described by participant no. 7: *“Because you can’t physically go back to then, we can try to re-create it – but we will never know exactly what it’s like. So although there’s like all the texts and different things and artefacts we can’t physically know what a person was like unless we bring them back from the dead and are maybe like talking to them about what it was like, we can’t – we don’t know that we’re getting everything specifically down to the minor details right, we can try but it’ll never be the same.”*

## **The Use of Material Culture Artefacts during Teaching**

Experience had taught me that students appeared to engage deeply with the past where they were handling material culture artefacts. Many other writers (O’Hara & O’Hara, 2001, p. 6972; Pluckrose, 1991, pp. 25-28, 93-95; Hoodless, 2011, pp. 73-74; Blyth, 1989, pp. 21-22; Harnett & Whitehouse, 2017, pp. 33-34; Nichol, 2017, pp. 53-54; Temple, 2014, p. 143; Cooper, 2012, pp. 17-21; Cooper, 2014, pp. 3-4;) also suggested that it is good practice to use artefacts as a way of examining past lives because they offer the possibility of making a connection through evidence. For example, O’Hara and O’Hara (2001, pp. 69-72) pointed out that children assimilate a view of the world through a first-hand experience such as the handling of artefacts. Cooper (2014, pp. 3-4) reminded us of the words of Neil McGregor, the director of the British Museum who said that artefacts grant an immediate access to the ideas and concerns of the people who made them and how they lived and what they believed. Cooper (2012, pp. 17-21) has also suggested that artefacts are likely to be used during teaching as part of a process of historical enquiry and may (p. 20) lead us to accept what we cannot fully know about the past. This is because whilst traces of the past, she suggests, tell us something of people’s past actions we can never truly know the thoughts and feelings that underpinned those actions.

The study strongly suggested that material culture artefacts helped the students to think about past lives as having been real. This appeared to be a key component of OHR as it helped students to make a link with the past. For example participant no. 7 discussed the experience of looking at the Victorian photograph collection. She indicated that when she was handling the artefact she could almost imagine being present during the period: *“It was the authenticity of knowing that was actually it, you don’t know what’s been changed (inaudible word) on a replica but you don’t know like enhancements whereas you’ve got that original and you can see, you can almost envisage yourself there.”*

Since the work of Cooper (1991) very little attention has been paid to the kind of incidental thinking that arises when students of history encounter past lives through material culture artefacts. This strand of thinking may be important as it could offer a way to teach students about past lives that sidesteps the multiple problems inherent within the discipline of HE. Indeed, my study (Moore, 2019) demonstrated that thinking arising from the handling of material culture promoted an awareness of the reality of past lives and caused students to make inferences about the similarities and differences between the present time and the past. This thinking seemed to be very different in character to the type of imaginative strategies that are typically used in historical empathy. Historical empathy is the type of thinking drawn from the work of Collingwood (1946) which has been significant in producing some controversial strategies for thinking about past lives which range from almost detective-like deductions (Lee, Dickenson & Ashby, 1997; Foster & Yeager, 1998) to ‘imaginative free-form story-telling or re-enactment’ (Ohn, 2010; Colby, 2010; Pelligrino, Lee & D’Erizan’s, 2012). Ohn (2010) for example, invited teacher trainees to re-construct the past by creating broadly fictional narrative in the form of stories, which became diaries, letters and news reports and, Pellegrino, Lee and D’Erizans (2012) had their school pupils engage in a re-enactment of the 1919 Paris Peace Conference. OHR thinking may be different because the student may co-construct the narrative by calling on a range of contextual and private knowledge through handling a material culture artefact. For instance, Cronis (2015, pp. 180-182) discussed the way missing narrative is both manifest and substantiated through artefacts. This is the idea of narrative co-construction – where the viewer brings their own experiences to partake in meaning making. Cronis (2015, pp. 180-188) explains that objects can behave rhetorically and identifies that viewers of artefacts are using them to fill narrative gaps in a way which can constitute a non-verbal and personal access to knowledge. Thus, the viewer of the material culture makes comparisons and is particularly impressed when something ancient is broadly similar to something used now. It is, Cronis points out a way of relating the distant past to the viewer’s own life through comparisons and a recognition of similarities. For example, participant no. 4 made such an observation when discussing the Roman dice: *“It must have been a very good idea because we’re still using it nowadays to play games, to count...”*

Objects, therefore, function as bridges between the past and the present. People’s collective past is recorded within artefacts and this re-contextualisation is where the viewer interprets the past through the lens of the present without some of the dangers of presentism (i.e. thinking about past lives through the lens of present knowledge and understanding). Cronis (2015, p. 187) discusses the viewer’s thoughts about artefacts in terms of re-contextualizations which involve shifts of meanings and through equivalencies which are a re-focussing from them to us. Artefacts, therefore, are not just about a reading of the past but a reflection on the present, the re-contextualization illuminates the present. Artefacts evoke the presence of the past through the imagination and allow the viewer to enter, just a little, into the life

lived in the past (Cronis, 2015, pp. 187-188). Indeed, Cronis described some people as being ‘transported’ into the past. This is because some people seemed actively to enter the past in their imaginations while others seemed to find that artefacts intensified their experience.

Thus, during natural thinking, the student may enter, just a little, into the past through making comparisons and recognising similarities with those past historical lives through the material culture artefacts they created and used. This allows them to re-contextualise their ideas about the past through a shifting understanding of what the artefact demonstrates which allows them to refocus from the past historical life to their own. In other words, it may be that handling a Roman coin can make the Romans seem more real for the student. Participant no. 10 observed the following after handling battlefield artefacts taken from the Somme: “*Yes, the moment you’ve, you’ve got a bullet or shrapnel in your hand it suddenly locates it with real physical toll.*”

Participant no. 8 discussing some battlefield archaeology from the Somme said something similar: “*Seeing the shrapnel, seeing it rusted, seeing it old and knowing where it’s from, I found gained my attention.*”

Bucciantini (2009, p. 4) discussed the way museums use artefacts to construct narratives which can be understood by their viewers. This is an ontological approach which centres on how artefacts encompass their own stories. Bucciantini reflects (p. 6) on the work of Benjamin (1999) who remarks that artefacts have an ‘aura’ which gives a viewer the power to connect to ideas which are larger than it. This may mean that during OHR the artefact connects the student to wider contextual ideas which may relate both to their own ideas about the past and to the context of the time in which the artefact was constructed. A conception of the potential power of this connection is contained within Crownshaw’s (2007, p. 179) work on photographs and memories of the Holocaust. Here he discusses Young’s ideas (1993) about the shock that the artefacts provoke as creating a remembrance of things not witnessed. The artefact is not (within museums) an unmediated objectification of the past but it is interpreted in the light of present-day discourses and, through opening up an interpretive space around the artefact, it achieves surplus meaning.

Thus, material culture artefacts presented alongside strong contextual information can connect students to powerful ideas and this thinking may constitute a component of Organic Historical Reasoning (OHR). It is through this dimension of OHR that the student may gain access to a potentially powerful experience of the past, one where they may act as a witness to things they have not experienced. The status of ‘witness’ may allow for a vision of the past which does not call upon the student to attempt to enter the mind of the past figure but allows them to think about the reality of the past.



The model of OHR proposes that an understanding of reality which seemed to be achieved through material culture artefacts appeared to promote strong natural thinking about past lives which was not primarily imaginative.

## Perceptions of the Historical Figure

Part of the study (Moore, 2019) therefore, was aimed at understanding how the historical figure was naturally perceived by the student through using material culture. It was thought that this may shed light on whether historical empathy was a component of a student's natural thinking about past lives. It was thought that the use of material culture artefacts would provide an opportunity to study this non-reciprocal relationship through a methodology which was not primarily imaginative. Past arguments have surrounded strategies to think about past lives which are primarily imaginative. For instance, Collingwood (1946, pp. 217-219), who was both an archaeologist and philosopher, asserted that the historian is concerned with sources which are an outward expression of human thoughts and it is only by re-thinking them for ourselves that we can uncover them. In his work he appears to be using the term '*imagination*' to describe how the historian fills in details of what is unknown (Collingwood, 1946, pp. 240-243). Thus, through using their imagination to fill in details the historian is drawing from a toolbox to offer an imaginative interpretation of the thoughts and actions of a person in the past. The toolbox might include attempting to re-think or re-enact a person's thoughts or through the historian drawing upon the lexicon of their own personal thoughts and feelings to understand and interpret those of the past figure. For example, the historian draws upon their own experience of pain to understand that of the historical figure. Retz (2015, p. 214) calls this Collingwood's re-enactment doctrine. Both Retz (p. 217) and Hughes-Warrington (2003, p. 15) assert that this educational focus on the methods of Collingwood originated with the work of Burston (1954, pp. 112-121) and many subsequent history educators (Burston, 1954, pp. 112-121; Levesque, 2009, pp. 147-149; Lemisko, 2004, p. 1; D'Oro, 2004, p. 4) who developed Collingwood's concepts into what became known as 'Historical Empathy'. There are well worked examples of archaeological teaching through using HE, for example Endacott and Sturtz (2015) who reported a project on Athenian lives and Lee, Ashby and Dickenson's (1997) often referenced study on the Emperor Claudius. Even Collingwood (1946, p. 301) gives an example of re-thinking the thoughts of Plato or other figures such as Solon or Hammurabi. However, Collingwood himself did not use the term '*empathy*' (Hughes-Warrington, 2003, p. 72) and subsequent work merely drew upon his thoughts in formulating a definition of it. Retz (2015, p. 217) also sees it as being unlikely that Collingwood would sanction any of the work of the empathising educators crafted in his name such as that of Shemilt (1984, pp. 41-43).

In Table 1 shows the ways in which Collingwood suggested thinking about past lives.

| Collingwood's orders of thinking about past lives | Examples from the writing of Collingwood (1946)  |
|---|--|
| Human history                                     | Firstly, history is concerned with human affairs (p. 213). Secondly, the historian is not merely concerned with the action of an event but with the underlying thoughts that led to it (pp. 213-215 & 217).  |
| Perspective                                       | Firstly, the past acts in the present; that is to say, as an historian, we can understand what is intelligible to us (pp. 218-219). Secondly, the past is seen from the present time and therefore no history is final. Each generation will re-write history. Historical thought is a river into which no-one can step twice (pp. 247-248). |
| Evidence  | Firstly, history must be constructed in relation to evidence (p. 246). Secondly, historians must become masters of their sources (p. 238). Thirdly, the historian reflects on the truthfulness of those sources (pp. 234-237 & pp. 243-245).   |
| Context   | Firstly, historical knowledge is related to a context, which an historian needs to know (p. 247). Secondly, the historian's perspective is localised in space and time (p. 246); history must be consistent with itself (p. 246).  |
| Imagination                                       | The historian constructs the reality of the past based upon ' <i>a priori imagination</i> ' (pp. 240-243).   |
| Interpretation                                    | Historians can re-discover the past by re-thinking the past. They imagine that person's thoughts (pp. 217-219).<br>Historians critically engage with and re-think what they uncover of past historical lives (pp. 215-216).<br>Historians use their experience of the world to check the interpretations of sources (p. 239).                |

**Table 1.** Collingwood's orders of thinking about past lives.

Historical empathy has thus emerged as a concept which is often polarised between those who see it as being centred on cognitive (thinking deductions about evidence) and those who see it as being useful for making affective (centred on feelings) connections with past figures.

### ***Cognitive Historical Empathy (HE)***

Cognitive HE is a conscious reflection on the thoughts, motives, actions, articulations and beliefs of an historical actor. Such an approach seeks to utilize deductive and imaginative reasoning, to better understand such past lives (Cooper, 1991, pp. 33-42). Many, such as Foster (1999, p. 19) see this kind of HE as knowing people in the past through a process of cautious enquiry and a close examination of available evidence. This is sometimes seen as the objective and academic approach to historical enquiry about past lives (Davis, 2001; Lee & Ashby, 2001). Some writers on the subject, such as Lee and Shemilt (2011, pp. 47-48) discussed the cognitive dimension of HE as a mechanism, where, similarly to Collingwood (1946, pp. 282-302), the student attempts to re-enact the historical actor's mind. The act of re-enacting thoughts in the manner they suggested is entirely cognitive, a reasoning based on evidence which is highly complex. However, the act of re-enacting such thoughts

must inherently draw heavily upon written sources which will inevitably be skewed towards those figures for whom we have such records.

Writers such as Rantala, Manninen and Van den Berg (2016, p. 324) have pointed out that some writers such as Lee and Ashby (2001, p. 24) argued that feelings do not belong in the sphere of HE. Indeed, the cognitive domain of HE requires an interpretation of thought and action and this must be done by abandoning one's own perspective to take on that of the historical other. However, this type of reasoning based upon the historical actor's thoughts seemed to be changed when material culture evidence was presented to students because they seemed to be more engaged with the reality of the past figure and less engaged with what historical actor was actually thinking. Thus, during OHR, the students seemed to deploy their imaginations in a more limited way which was possibly more focussed on what they could perceive from the evidence – in this case the material culture artefact.

### ***Affective Historical Empathy***

Affective historical empathy is seen as different to cognitive historical empathy. It is seen as the domain in which the thoughts and acts of the historical actor are connected to their feelings and emotions (Rantala, Manninen & Van-den-Berg, 2016, pp. 324-345). Thus, during the deployment of affective HE the student is thinking about and engaging with the emotions and feelings of the historical figure. In doing they are thought to be able to reflect on how affective and emotive behaviour orders their own lives so that they can perceive how the same (or similar) may have been true in the past. Thus, the affective domain of HE requires emphasising skills and insights, which can then be applied to understand the feelings and emotions of an historical figure and allow the student to know them better (Barton & Levstik, 2004, 2013; VanSledright, 2001, cited in Davis, 2001).

However, asking a student to use their imagination to create a picture of past lives based upon evidence where one is seeking either a cognitive or affective response sometimes appears to lead the student to think in an ungrounded way. In other words, such a strategy may actually push a student to construct a largely imaginary picture of the past figure. It was particularly interesting, therefore, that it was found during this study that students were reluctant to think about historical figures in such an imaginative way. They appeared to accept that the evidence demonstrated that the past figure was real but showed that they understood that they could not fully know about the thoughts and feelings of the past figure. For example, no. 2 gave a sense of a desire to identify with the past that arose through the artefacts. However, she contextualises this desire by explaining that, whilst the artefact allows her a glimpse of the past, what she can see of it is limited: *“Erm, I do like replicas but*

*the actual real thing I go like this is old, this is and you kind of look into the story but obviously you don't necessarily know the story.."*

## ***Psychological Empathy Is an Evolved Component of Human Behaviour***

The debate on historical empathy suggested that it may be important to understand how psychological empathy orders a student's thinking as they connect to a past figure through material culture artefacts. Psychological empathy is regarded a key tool of human socialisation and appears to be an evolved trait that is hardwired into the human (and animal) brain. This means that for most humans its deployment is an entirely natural component of behaviour. Psychological empathy is deployed during engagement with 'others' and in preparation for interaction with others. At its most basic it is a fast response alignment such as returning a smile or a reaction to a thrown ball and at its most sophisticated it is a musing over the thoughts and feelings of another person.

Christov-Moore et al. (2014, p. 604) indicated that  $\Psi$  empathy appears to have evolved as it helps to promote social and cooperative behaviour through enhancing the ability to predict the behaviour of others. It is widely present in both the human and animal sphere (Mason, 2011; Sanders et al., 2013; Cools et al., 2008; Fogassi, 2014) and has been demonstrated in dogs, rats and even invertebrates. It is also present in early infancy (Alexander & Wilcox, 2012). Psychologists such as (Christov-Moore et al., 2014, p. 604; Singer et al., 2008, p. 782; Singer, 2013) also show that empathy is hard-wired into human behaviour – in other words it is linked to defined areas of the brain. Therefore, it is likely to comprise a significant and sometimes unconscious component of engagement with others and in its various forms may not be switched off easily. This means that any strategy likely to promote empathy in an ungrounded way may lead to thinking which is primarily empathetic in nature which could be disconnected from the historical figure.

## ***Psychological Empathy as Reward***

As a tool of socialisation psychological empathy is known to be a rewarding behaviour to engage in. This is because it promotes social cohesion through providing a reward for engaging with others. As participant no. 6 observed: *"I'm a people person – I love knowing about people and their history and I like people telling me about the wonderful things they've done in their lives and the experiences that have made them who they are – and I think history is just that on a bigger scale."*

Indeed, Lockwood et al. (2014) note that exhibiting such empathetic behaviour is positively related to having closer relationships with friends, less depression and

greater life satisfaction than those who use expressive suppression. In other words, we may enjoy engaging in the empathetic thinking about historical lives because it makes us feel good. Conversely, it may cause us stress to engage dispassionately with such lives and ignore the affective elements of what we see.

## ***Empathy and OHR***

We may ask, however, whether it is possible to empathetically engage with the plight of another who is not present. Some historical writers, for example (Sánchez-Augustí & Miguel-Revilla, 2017; Retz, 2015, p. 215) have made assumptions that HE and  $\Psi$  empathy are different because reciprocity is not possible due to the historical distance between subjects. However, psychologists such as Christov-Moore et al. (2014, pp. 604-607) point out that we, as humans, can internally evoke the emotions and sensations of an absent other. Marsh (2018) also shows that such  $\Psi$  empathy confers the ability to think about the behaviour of others even through written sources. Indeed, Smith (2006, pp. 4-8), Christov-Moore et al. (2014, pp. 604-607) and Singer et al. (2013) all show that this type of empathy allows for the sharing and mimicry of the states of others who need not be present. In other words, we humans can naturally resonate with the feelings of someone who is not present as we may do when we read a novel or watch a TV.

## ***Cognitive Dimensions of OHR which Lead to a Natural Understanding of Perspective***

Can this ability to empathise be detected as students handle material culture artefacts? Interestingly it was noticeable from the data was that material culture of any age appeared to be able to prompt empathetic responses. These responses appeared to be directly related to the human reality the artefact portrayed. For instance, a stone age artefact might prompt responses based upon its apparent complexity. You may recall the words of participant no. 3 above, she later expanded on her thoughts about the Neolithic axe: *“There wasn’t always a sense of intelligence actually – from history. And when I see this, you know, I like I think umm there isn’t a greater sign of intelligence than craftsmanship.”*

Such a statement, however, seems to use the imagination in a limited way. It also makes it difficult to suggest whether it was primarily affective or cognitive. Indeed, this was typical of many statements within the data. In understanding why this may be so it may be useful to see how both affective and cognitive empathy are linked. The psychologist Smith (2006, pp. 4-8) explains that cognitive  $\Psi$  empathy enhances social functioning through enabling us to understand and predict the behaviour of others. Smith (2006, p. 8) also proposed that cognitive empathy and affective

empathy are part of an integrated mechanism, where the cognitive component helps manage affective processes and the affective guides and regulates the use of the cognitive. Christov-Moore et al. (2014) later explained that such deliberative processes, which they term mentalizing, can lead to inferences about another person's bodily and affective states, beliefs and intentions. In other words, cognitive empathy allows us to think and reason not only about the actions of others but their emotive state too. This appears to demonstrate that engaging affectively about the plight of another can also lead to cognitive engagement as well.

It may be the case that many commentators have not fully understood the interplay between the two elements of empathy because they assume that there is a strong separation of the co-called cognitive and affective elements (Endacott & Brooks, 2013, p. 41; Endacott & Sturtz, 2015; Dillenberg, 2017, p. 5; Rantala, Manninen & Van-den-Berg, 2016, p. 324; Davis, 2001, p. 3; Lee, Dickenson & Ashby, 1997; Barton & Levstik, 2013, p. 8 & 2004). This may be problematic because the cognitive element of empathy is linked to the emotive element. In other words, the natural process of empathising can often involve reflecting on both the cognitive and affective state of others. Psychologists such as Kanske et al. (2015, pp. 6-19) have investigated the complex process of understanding others through the sharing emotions and reflections on another person's thoughts. This type of thinking is achieved through what they term '*shared brain networks*'. These networks underlie our ability to engage in empathy. In other words, possessing brains which behave in similar ways allows us to function as social beings. This gives us, therefore, the common bond of experience with the historical figure that Collingwood (1946, p. 239) had so long ago discussed. Kanske et al. (2015) point out that two processes known as ToM (Theory of Mind) and cognitive perspective taking (which is similar to cognitive/emotional  $\Psi$  empathy) enable us to engage in reasoning about the beliefs, thoughts and emotions of others. They describe the difference between ToM and cognitive perspective-taking as that the former yields propositional knowledge (thinking) about another's state whilst the latter allows for the sharing of another's affective and bodily state. Marsh (2018, pp. 110-115) calls this process mentalizing (the act of cognitive  $\Psi$ e and ToM) about the state of another person.

### ***This May Help Us Understand Historical Perspective***

Thus, it may be that the propensity to engage in  $\Psi$  empathy during the handling of material culture very high because doing so activates '*shared brain networks*' which are highly evolved to allow for musing on the bodily and affective states of others. It may also be that Theory of Mind (ToM) and cognitive  $\Psi$  empathy allows for insights into the behaviour of others that are similar in character to HE. However, these dispositions will also make it clear that others have a different perspective to us which has been seen as a great difficulty for HE in the past. For example, here is participant

no. 10 discussing some photographs of soldiers who were thought to have been killed during the Somme battle: “... then there is an entire world of person in those photographs that people kind of – they can’t pick out because they are imminently unfathomable because we never knew them and then they are suddenly kind of muted to you because those people were dead very shortly after.”

Brophy and Alleman (2003, p. 108) describe ‘presentism’ as a faulty form of historical perspective where there is a tendency to view the past through the lens of hindsight which leads to a confusion of past and present. In other words, it is the judgement of the past through the knowledge and understanding that privileges those who inhabit the present. Thus, presentism is the tendency to judge past actions by our own standards rather than those of the time. This dilemma is discussed by many writers: Dillenberg (2017, p. 15) for instance recognises that in engaging in HE one is sharing in the humanity of the past and refers to the work of VanSledright (2001, cited in Davis, 2001) who argues that, whilst this involves an exploration of self, one can never fully understand another’s experiences. Retz (2012, p. 42) also questions whether it is possible to retrieve or project ourselves into the past without doing so from our own terms of reference.

However, psychological empathy and ToM allows us to understand that other may be thinking differently from ourselves. An example of this is no. 6 who makes a statement which conveys that she has both thought about what the historical figure may have felt and knows that she cannot know what they actually felt. In other words, she has felt a connection to the figure but also understands that she cannot know what they knew: “You can like, not imagine, because obviously you’re not there and you can’t put yourself in their time – but you can start to think about the hardships maybe and what people went through and how life is very different.”

My study (Moore, 2019) appeared to demonstrate that one of the ways in which presentist ideas may be overcome is through students re-forming their own ideas and thinking about the historical narrative as they encounter a material artefact within a contextual teaching process.

### ***A Sense of Self in Relation to the Historical Figure***

A finding which arose from the data appeared to show that some more recent artefacts appeared to prompt the students to think about themselves in relation to history. For instance, no. 10 who has been handling WWI battlefield archaeology explained that this connection is like a website inside his head: “I think then equally it sparks that kind of er – thought process or that thought map that kind of spreads out – almost a kind of website from the inside, kind of expanding out – all these things making connections with all these other things.”

He also demonstrated that the connection has prompted him to think about himself in relation to his wider culture: *“... in some ways it was quite moving but it’s hard to not be moved – it’s kind of one of those – it’s very much in the cultural Zeitgeist at the moment being the centenary erm I also, er yeh it kind of – it does hit quite hard because I do know, of people in my family, you know of grandma’s family and stuff like that who died in that war or who were part of that war erm and it’s kind of – I think it’s quite important especially for those who kind of come along later in the millennium who have never really experienced such an idea of total war to kind of reflect on that.”*

Indeed, a particularly striking and unexpected feature of the data was the number of unprompted references that the participants made to their grandparents. It was thought that these references to grandparents may be linked to the way in which we use memory to help define ourselves. Memory is a vital mechanism not just in terms of day to day functioning and knowledge but also in providing a conception of who we are as human beings. In this way an effective memory provides a narrative not only of our own journey through time but also allows us to think about how this journey relates to that of other people. We can see this function of memory as being linked to a conception of history, culture and identity. Black (2014, p. 7) reminded us that group identity is a key feature of human society and discusses the possibility that identities are imagined and constructed rather than inherent. History is part of our identity and a sense of the past comes through family and overlaps with a personal or collective experience of the past. Indeed, this mention of wider family and family through time opened the possibility that the student who handled material culture may be engaged in remodelling their perspective of themselves as a being in history. Tani, Peterson and Smorti (2014, pp. 254-255) suggest this kind of personal meaning evolves from experiences which are constructed from interactions from others and Graci and Fivush (2017, p. 489) discuss this way of forming memory in terms of narrative – the way memories are expressed shape self-identity and connect individuals to others. Ahonen (2001, p. 179) explains this in historical terms as a dynamic interaction with the collective memory, which explains one’s interaction with the prevailing historical narrative.

## **Conclusion**

This model of historical Organic Historical Reasoning (Figure 1) incorporated the idea that handling material culture during pedagogical activity can lead to organic thinking about past lives that is enhanced and reinforced by an understanding of the reality of past lives. It also incorporated the idea that one of the outcomes of this thinking is a natural awareness of perspective. The model has reflected a strong idea from the data. That the use of material culture artefacts as evidence during teaching can lead to students form ideas about past lives. This is because they appear to promote connections to what the students often termed the ‘story’ of the past. The term



'story' appeared to be linked to the student's understanding of the reality of the past. This connection then leads to the three natural ways to think about past lives. These are through a *Sense of self*, the possibility of *Perceptions of the historical figure* and a sense of *Perspective*.

These may be important considerations for planning teaching about past lives. This is because it appears that an understanding of the reality of the past is linked to the student forming ideas about past figures which are not, primarily, based upon imagination and demonstrate a sense of perspective. This may also convey an idea that affective and imaginative strategies are less effective in engaging pupils with thinking about past lives than those which promote a sense of their reality (such as activities using artefacts). The model also conveys the idea that a significant component of OHR involves the student making a consideration of themselves in relation to the past.

Finally, this model may demonstrate that conveying a sense of the reality of the past may be a more important component of teaching than imaginative historical empathy type activities. It was important that the research demonstrated that such an understanding could be achieved through relatively humble artefacts such as some battlefield shrapnel or a well-used Roman coin.

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## **DEVELOPING HISTORICAL THINKING THROUGH ARCHAEOLOGICAL HERITAGE EDUCATION: THE MINOAN PALAIKASTRO EDUCATIONAL PROJECT**

### **Abstract**

The aim of this chapter is to analyse and discuss the contribution of the archaeological-based activities, implemented in the context of the public education and outreach of the Palaikastro excavation project, Crete, to children's historical thinking and understanding of the past. The educational rationale behind these outreach activities was based on the considerations of public archaeology, museum education and history teaching with the aim, among others, of developing students' historical thinking competencies and skills. These included the elaboration of historical concepts (time, evidence, significance, agency, accounts, empathy, continuity and change, causation, multiperspectivity) and the strengthening of historical understanding through historical inquiry and interpretations based on evidence with the purpose being for participants to realize the nature of evidence, the fragmentation of history and to raise their awareness of the relevance of the past to the present. Analysing certain cases of educational activities implemented in the Palaikastro educational project, it is suggested that archaeological heritage education can fundamentally promote historical thinking on the condition that learning strategies that integrate archaeological-based experiences, historical inquiry and learner-centred methods are implemented, and post-processual archaeological theory and social constructivism are adopted.

**KEY WORDS:** ARCHAEOLOGICAL EDUCATION, HISTORICAL THINKING, ARCHAEOLOGICAL HERITAGE, HISTORICAL CONCEPTS AND SKILLS, MATERIAL CULTURE, PALAIKASTRO EXCAVATION.

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# DEVELOPING HISTORICAL THINKING THROUGH ARCHAEOLOGICAL HERITAGE EDUCATION: THE MINOAN PALAIKASTRO EDUCATIONAL PROJECT

## Introduction

The place of archaeology in education in the context of history curricula and textbooks, classroom lessons, education and outreach at heritage sites and museums has been an increasingly discussed topic over the last 30 years (e.g. Bender & Smith, 2000; Corbishley, 2011; Davis, 2005; Henson, Stone & Corbishley, 2004; Malone, Stone & Baxter, 2000; Smardz & Smith, 2000; Stone & MacKenzie, 1990; Stone & Molyneaux, 1994). In many of these publications a holistic approach is embraced, appreciating that archaeological education is not restricted to formal education but is also manifested in all the varied formal, informal and non-formal learning environments where every type of audience acquires knowledge, experience and skills while encountering archaeology (Kasvikis, 2019). Nevertheless, the potential of archaeological knowledge and practice to foster history learning remains an under-explored topic, no matter that the significance of archaeological methodology and knowledge is recognised for “*the intellectual cognition development of children with a range of associated high level skills of a social, conceptual, mechanistic and emotional and affective nature*” (Nichol, 2008, p. 4).

In this paper I aspire to explore the influence of archaeological heritage on historical thinking based on empirical evidence drawn from the public education and outreach programme of the Palaikastro excavation project in Crete, and to discuss the role of material culture in children’s understanding of the past through inquiry-based learning strategies. Firstly, I will briefly present the theoretical framework of historical thinking and the current discourse concerning the potential of archaeology in history learning. Then, the archaeological context of the Palaikastro excavation project and the theoretical framework of the educational policy will be outlined and a number of examples of how historical skills and concepts were integrated into archaeological education practices will be discussed in more detail in order to offer insights on the prerequisites and challenges of developing historical thinking in the context of alternative and informal learning settings.

## From Historical Thinking to Archaeological Education

In order to define the impact of archaeology on history thinking and understanding a brief overview of the current state of history teaching is required. Theory and

practice of teaching history, in the context of a broader pedagogical shift and the relative socio-cultural changes of the last decades, has rejected knowledge reception through memorization and regurgitation of important historical facts and advocated for *historical thinking*, *historical literacy*, *historical consciousness* and *historical reasoning* as being fundamental for history education. As a matter of fact, two distinct theoretical and pedagogical traditions have emerged: *historical thinking* and *historical consciousness*. The notion of *historical thinking*, appertaining to a realistic and empirical educational agenda, originated from the scholarship of the British Schools History Project and developed through mutual interplay with other scholarly traditions, mostly in the Anglophone world (Seixas, 2017, p. 59), as a scientific model of historical cognition that focuses on the modes of understanding substantive history and second-order concepts. On the other hand, *historical consciousness*, rising from the German philosophical background, is now an internationally influential concept that covers every form of historical thinking and describes a particular mode of an individual's cognitive and emotive orientation in time (past, present, future) shaped by historical experiences, ideology, official historical knowledge and memory culture (Rüsen, 2004).

However, there is no standard and agreed upon definition of historical thinking in the related literature. In reality, in the theoretical and research traditions and national perspectives of historical thinking at least three trends were formulated, in England, Canada and the U.S.A., not including other national variations, reflecting different conceptualizations and distinct models and practices of history education (Levesque & Clark, 2018, pp. 119-120). Nevertheless, a degree of commonality is identified. Among the common features of historical thinking across the globe is the conformity in teaching disciplinary thinking, and in different curricula and teaching practices historical inquiry has been introduced as a teaching method to enhance historical learning and understanding (e.g. Levstik & Barton, 1997; Seixas & Morton, 2012; Wineburg, 2001; Cooper, 2012).

The emphasis on conceptual understanding is another overlapping feature between different theoretical traditions of historical thinking. British advocates of historical thinking defined a significant division between first-order concepts (the substantive content of history) and structural (second-order or procedural) concepts that form the ways that historians “do” history. The importance of second-order concepts (evidence, explanation, accounts, causation, consequence, change, continuity) lay in their contribution to understanding history both as a discipline and a form of knowledge (e.g. Counsell, 2000, p. 57; Lee & Ashby, 2000, p. 199). In Canada, the “Benchmarks of Historical Thinking” (currently the “Historical Thinking Project”) was launched as a research and practice project for teaching disciplinary history based on historical concepts. According to Peter Seixas, six important concepts (historical significance, evidence, continuity and change, cause and consequence, historical perspective-taking and ethical dimension), that mostly work as problems and dilemmas rather than

historical skills, are considered to contribute fundamentally to thinking historically, as the learners need to comprehend, negotiate and strive to work with them in the classroom (Seixas & Morton, 2012; Levesque & Clark, 2018, p. 128).

Finally, it is important to stress that research in history education explores the cognitive processes of historical thinking along with the impact of the socio-cultural context of the learners and the function of certain cultural tools on their concept of issues concerning agency, historical sources, significance, time, continuity and change (Levesque & Clark, 2018, p. 135). This importance of a social constructivist perspective of history learning is also identified in the German tradition of history education, in the context of J. Rüsen's definition of historical consciousness as "*a set of mental operations*" that are socially and cultural mediated (Rüsen, 1987, p. 284).

As an alternative to the notion of historical thinking, engagement in "historical literacy" (Lee, 2011) and acts of "historical reasoning" (Van Boxtel & Van Drie, 2018) are also proposed by history educators as modes and approaches for learning and understanding history. For the purposes of the present study the notion of historical thinking is adopted as a broader term that better suits the examination of the role of archaeological education in history learning and understanding.

Recently a number of researchers have examined and highlighted the pedagogical significance and benefits of education through and about archaeology, arguing that archaeological knowledge and methodology: contribute to the teaching of various school subjects across the curriculum and in an interdisciplinary manner (Corbishley, 2011, pp. 149-190; Henson, 2017, p. 55); function as a powerful and exciting tool for teaching and learning that motivates interest and enhances skills of inquiry, analysis and deduction (see Henderson & Levstik, 2016, p. 503 for extended bibliography); improve verbal communication, structured work and creative thinking (Arias Ferrer & Egea Vivancos, 2017, p. 103); and develop a humanistic study of the past that fundamentally supports citizenship, democratic participation (Copeland, 2009; Henderson & Levstik, 2016) and multicultural awareness (Johansson, 2019). In addition, the research has examined: the contribution of integrating archaeological methodology and practices and studying archaeological artefacts to the development of certain historical skills in the classroom and in other learning environments like museums, heritage sites or excavations; the role of archaeological methods and excavation in developing historical skills and the potential of archaeological artefacts to build students' perceptions and ability to relate them to the past; and teachers' practices in utilizing material culture to enable students to better understand the complexity and depth of human experience (Arias Ferrer & Egea Vivancos, 2017; Henderson & Levstik, 2016; Levstik, Henderson & Youngdo Lee, 2014; Levstik, Henderson & Schlarb, 2005; papers in Egea Vivancos, Arias Ferrer & Santacana I Mestre, 2018; see also *Primary History*, 51, 2008, special issue).



## The Palaikastro Archaeological Site

The archaeological site of Palaikastro lies in the northeastern part of the island of Crete in Greece, two kilometres from the modern village of Palaikastro. The area was first explored archaeologically by the British School at Athens at the beginning of the 20th century (1902 to 1906) which revealed the ruins of a prosperous coastal Minoan town, an ancient sanctuary of Diktaian Zeus, cemeteries and the Bronze Age peak sanctuary of Petsofas. It was researched again in 1962-3 and some years later, H. L. Sackett and A. Mac Gillivray initiated a new research programme, under the auspices of the British School, that realized a topographical and magnetic survey (1983) and excavations (1986-2003) to identify the urban boundaries.

Palaikastro is the largest excavated Minoan town on Crete. The excavations documented continuous occupation from the Early Minoan Period (first half of the 3rd millennium) and throughout the Bronze Age. A well-planned town with overseas connections appears at the beginning of the “Old palace period” (MM IB-IIA, c.a. 1930-1880 BC) and flourished during the next centuries. According to the excavators, the town suffered a series of damages from earthquakes and fire and was rebuilt with almost the same planning until its final destruction around 1250 BC. Palaikastro is the second largest town after Knossos in Minoan Crete but was without indication of central administration (or a palace) until recently. The town was organised in sectors, with a central paved street and a network of smaller streets that delineated impressive urban blocks, with spacious houses and ashlar facades in many cases. The economy of Palaikastro was based on trade and agriculture, supported by a wide variety of crafts including weaving, manufacture of metal, stone and ivory products, and pottery production, both for local consumption and export (MacGillivray & Sackett, 2012, with full bibliography on the history of research).

In 2012-2016 a new research programme (Palace and Landscape at Palaikastro (PALAP) Project) was carried out by the Universities of Toronto, Bristol and Nottingham, with the aim of placing the Minoan town in its wider context. In this framework, excavators were also interested in building effective communication with the local community and disseminating knowledge concerning the new archaeological project. The author of the present paper participated as the designer of the education and outreach programme of the excavation project and as archaeological educator in the implementation process.

## The Theoretical Framework of the Palaikastro Educational Project

In order to develop the communication and education policy of the excavation project, the different agendas of the various interested groups were identified, including those of the archaeologists, local authorities, cultural societies, local folk museum

members and teachers. Local teachers stressed their concern for students to be participating in creative and meaningful activities in their leisure time during summer and to gain greater knowledge about local history based on archaeological finds. In addition, as the archaeological educator of the project, I intended to examine the potential of archaeology as a device for developing young people's historical thinking.

Different sets of aims were defined for the Palaikastro educational project. The general aims and objectives were: to mobilize knowledge concerning the archaeological project at a local level and to different target groups with children adopting the role of "messengers"; to create public awareness and understanding of archaeology as a social practice; and to highlight Minoan material culture as part of the area's local history. The specific aims underpinning the educational activities were for young participants:

- to appreciate the disciplinary and interdisciplinary character of archaeology as a science that reconstructs the past;
- to experience aspects of archaeological practice; to appreciate the values of archaeological remains as historical evidence and the contribution of archaeology to the understanding of the local past;
- to practice their skills of observation, examination and interpretation of material culture;
- to raise their awareness about archaeological heritage management and
- to develop their historical thinking through participating in object-based learning and experiential activities.

The research aims in the context of the Palaikastro educational project were: to examine how historical thinking skills and concepts are integrated in archaeological education practices; to elicit data and explore aspects of the development of children's historical thinking when participating in archaeological-based educational activities; and to identify the learning results concerning historical understanding in the context of alternative educational environments, such as excavations, archaeological sites and research laboratories.

To fulfil these educational and research aims, a three year educational project (2013, 2014, 2016) was materialized which not only intended to build communication between the excavation project and the local community, but also to acquire data in order to examine the impact of archaeology on children's historical thinking and understanding. During the three-year implementation of the educational programme, about forty 10-12 year old children participated voluntarily, over the course of three days, in educational activities which varied per excavation period that, apart from the local Primary school of Palaikastro, took place at the excavation section, the archaeological site and the excavation's laboratory. The latter three areas were utilized as authentic learning environments that promote material culture as a

field of research and study and provide opportunities for the development of historical thinking and understanding. Eleven different activities, either implemented once during a single excavation year or repeated for a second year, were realised in those three years, based on an integrated approach, and adopted learner-centred and task-based teaching methods. The educational rationale of these activities was based on theoretical considerations and practical experience of Public Archaeology, Museum Education and History Didactics as different interdisciplinary tools for teaching, experiencing and interpreting the materiality of the past (Kasvikis, 2019).

According to Trudie Cole (2015), who examined the impact of archaeological and educational theories on archaeological education programmes in UK museums, heritage sites and organizations, a broad range of practical approaches and a blend of different or contradictory theories are applied, consciously or otherwise. She identified that programmes influenced by processual archaeology put an emphasis on data and archaeological scientific methods, mostly employing artefacts as a source of objective content-based knowledge through inquiry that focused on archaeological skills. On the other hand, the influence of post-processual archaeology is traced through principles and tenets that view material culture as text that is subjective, and centres on agency, the importance of context and the values of the past. These programmes emphasize: the role of the individual in the past; the learner's potential to come up with different and/or alternative interpretations; the consideration of the (archaeological) context for interpretation; empathy and the different values of people in the past etc. In addition, educational theories of *constructivism*; *social constructivism*; *experiential learning*; and theories of *learning styles* and *multiple intelligence*, along with the traditional *didactic approach* were identified in the research data archaeological programmes. As is evident in the teaching strategies and methods and historical concepts and skills of the different educational activities depicted in Table 1, the educational project of Palaikastro adopted a variety of different educational and archaeological theories, ranging from a very limited conventional didactic approach, when required as an introduction, to processual archaeology and constructivist learning approaches, but mostly placing emphasis on the post-processual paradigm of archaeology, social constructivism and integrating theories of learning styles and multiple intelligences.

It is suggested that archaeology applied in formal and non-formal education provides two distinct learning opportunities: knowledge about the past and archaeological inquiry skills (Henson, 2017, p. 53). The activities were designed and implemented with the purpose of: facilitating children in their understanding of the disciplinary character of archaeology; examining different aspects of archaeological practice (methods, excavation techniques, recording, conservation and restoration, laboratory work, interpretation of finds, archaeological values); improving their content knowledge about the past (mainly Minoan Prehistory), and fostering their awareness concerning archaeological heritage management, issues that will not be

further discussed in this paper. In addition, these activities aimed to enhance historical thinking and related skills (Table 1). In what follows I will examine the impact of some of the above outreach activities on the process of developing the historical thinking of the young participants.

| <b>Activities</b>  | <b>Excavation seasons</b>     | <b>Teaching strategies and methods</b>  | <b>Aims, concepts and skills of historical thinking</b>  |
|--|-------------------------------|---|--|
| <b>1. Introductory session with PowerPoint presentation</b>  | <b>2013<br/>2014<br/>2016</b> | lecture, active observation, brainstorming, questioning and discussion  | understanding archaeological methodology, understanding of (archaeological) evidence, recognizing the significance of archaeological heritage for the present, understanding historical context/big picture                                  |
| <b>2. Activity involving the reconstruction of modern pottery segments and their contextual interpretation</b> | <b>2014</b>                   | problem solving, hands on/ minds on, discovery learning, group work/ collaborative learning, presentation and group discussion                                | understanding of (archaeological) evidence, historical inquiry, analysing cause and consequence, constructing interpretive accounts, multiperspectivity, understanding archaeological context  |
| <b>3. "School yard dig" activity and study of the finds (at the excavation Laboratory)</b>                     | <b>2013<br/>2014</b>          | discovery learning, problem solving, hands on/minds on, worksheet based guided inquiry, group work/ collaborative learning, presentation and group discussion | understanding of (archaeological) evidence, historical inquiry, understanding concepts of time and chronology, historical significance, constructing evidence-based interpretations, understanding big picture                               |
| <b>4. Card discovery game of Minoan artefacts and their presentations</b>                                      | <b>2016</b>                   | discovery learning, problem solving, group working/collaborative working, tactile and physical exploration, presentation and group discussion                 | historical inquiry, understanding of (archaeological) evidence, constructing evidence-based interpretations, understanding historical context/big picture  |
| <b>5. Visit and observation of the excavation process</b>  | <b>2013</b>                   | field work, guiding, active observation, demonstration, questioning and conversation, tactile and physical exploration  | understanding archaeological methodology, understanding of (archaeological) evidence, recognizing the significance of archaeological heritage for the present  |
| <b>6. On-site interpretation game: "The Palaikastro Kouros"</b>  | <b>2013<br/>2016</b>          | field work, tactile and physical exploration, discovery learning, problem solving, presentation and group discussion  | historical inquiry, understanding of (archaeological) evidence, analysing cause and consequence, constructing evidence-based interpretations and accounts, multiperspectivity, understanding archaeological context                          |
| <b>7. "Real" simulated dig at the excavation field</b>   | <b>2014</b>                   | field work, experiential learning, hands on/mind on, problem solving, group work/ collaborative learning, presentation  | understanding of archaeological methodology, understanding of (archaeological) evidence, constructing evidence-based accounts, recognizing the significance of archaeological heritage for the present, understanding archaeological context |

| Activities  | Excavation seasons            | Teaching strategies and methods  | Aims, concepts and skills of historical thinking   |
|---|-------------------------------|--|--|
| <b>8. On-site research activity and data interpretation in a Minoan house complex</b> | <b>2016</b>                   | field work, discovery learning, worksheet-based guided inquiry, problem solving, hands on/minds on, group work/collaborative learning, presentation and group discussion | historical inquiry, understanding of (archaeological) evidence, identifying continuity and change, differences and similarities, constructing interpretative accounts, understanding archaeological context                              |
| <b>9. Tour guiding and presentations at the excavation laboratory</b>                 | <b>2013<br/>2014<br/>2016</b> | field work, guiding, demonstration, active observation, tactile and physical exploration, questioning and conversation, hands on/mind on, drama (pantomime), role play   | understanding archaeological methodology, understanding of (archaeological) evidence, historical empathy, recognizing the significance of archaeological heritage for the present  |
| <b>10. Study and interpretation of a storage vessel from the “real” simulated dig</b> | <b>2014</b>                   | observation, discovery learning, hands on/minds on, group work/collaborative learning, creative writing, presentation and group discussion                               | historical inquiry, understanding of (archaeological) evidence, constructing evidence-based interpretations and accounts, multiperspectivity, understanding excavation context   |
| <b>11. Study and interpretation of original excavation findings</b>                   | <b>2016</b>                   | hands on/minds on, worksheet-based guided inquiry, group work/collaborative learning, presentation and group discussion  | historical inquiry, understanding of (archaeological) evidence, identifying differences and similarities, understanding archaeological context, constructing evidence-based interpretations, multiperspectivity, historical significance |

**Table 1.** Activities of Palaikastro educational project, teaching strategies and historical thinking development.

## Archaeology and Historical Thinking: A View from the Palaikastro Educational Project

### *Case Study 1: School Yard Dig*

In Activity 3, “School yard dig and study of the finds” (2013, 2014), an imitation deposit of artefacts was created in the school’s athletic sandbox where a number of replicas of archaeological artefacts, from prehistory to modern times, were buried: a Byzantine icon, a Hellenistic/Roman lamp, a Mycenaean “Psi” type figurine, and a prehistoric (Neolithic) arrowhead (in 2013), replaced by an obsidian razor and stone flakes in 2014. In addition, a semi-buried metal can of tobacco (c. 1940s) at the top of the deposit was placed as a more recent indication of material evidence of human activity. Children were urged to observe any traces of the past and were intrigued to

discover what was buried in the sand at their school yard. After identifying the first surface object, children gradually removed layers of soil and discovered the other four artefacts at a different depth.

Their findings were cleaned, numbered and bagged, and students using research worksheets, examined, analysed and interpreted them as being characteristic of their time. Through this activity, children elaborated on concepts of time and chronology and were challenged to classify these artefacts in different historical periods including modern times, medieval (Byzantine), Antiquity, Bronze Age or Neolithic. The students' decision on ranking the artefacts from newest to oldest was a combination of their observations on the sequence of their discovery, their pre-existing knowledge, the type of the artefact and the detailed object study carried out using worksheets. For example, they concluded that the oil lamp dated to the Hellenistic/Roman era because "*it was buried below the Byzantine icon*" (2013) or through the decorative motifs of the specific artefact (2014). The arrow was attributed to the Neolithic not only due to its stratigraphic position at the bottom of the deposit but "*as it seemed to be very old*", while the Christian icon was placed in the Byzantine period "*because in the Byzantine era Christianity had spread*". Based on their results, a cardboard stratigraphy was created as the kids attempted to arrange these artefacts "*in chronological sequences*" and create an artefact timeline (e.g. Farr Darling, 2008, p. 287), arranging their findings from recent to oldest and arguing for their selections (Figure 1). Previous historical knowledge from school history or other sources appeared quite helpful in this process.



**Figure 1.** Creating an artefact timeline. Photo: Kostas Kasvikis, 2013.

Through this activity children elaborated on concepts of time using artefacts as visible and tangible evidence and as symbols that enabled them to aestheticize historical periods. Several empirical researches have demonstrated that understanding concepts of historical time is a process of learning and a matter of training rather than a child's developmental process. The game contributed to the participants elaborating on objective and subjective concepts of historical time such as chronology and periodization, to define the characteristic features of different historical periods and epochs and to place them in the right order, on the basis that chronological understanding contributes not only to learners' abilities to arrange historical facts, people and changes in a time scheme but most importantly to their temporal orientation in general (De Groot-Reuvekamp, Van Boxtel, Rose & Harnett, 2014, pp. 490-492).

### ***Case Study 2: On-Site Interpretation Game “The Palaikastro Kouros”***

The on-site interpretation game with the Palaikastro Kouros (season 2013 & 2016) was one of the most effective and inspiring activities of the educational project, not only in terms of acquiring archaeological knowledge but also for introducing participants to the complexities and ambiguities of archaeological interpretation and for fostering the development of historical thinking skills of causality, multiperspectivity and agency.

The activity was based on a task given to participants to interpret the peculiar and problematic destruction of the chryselephantine Kouros, the most exceptional cult figure unearthed at the Palaikastro excavation, currently on display at the Archaeological Museum of Sitia, Crete. It is a carved ivory male statuette, with a head of serpentine and eyes of rock crystal, covered with gold foil. It was discovered smashed into hundreds of pieces, burnt or affected by fire, and scattered over two areas, 10 metres apart, both outside and inside of a building that is interpreted as an urban shrine, part of a larger residential complex with elaborate ashlar masonry exterior walls. According to the excavators, it was deliberately vandalized at the time of the shrine's looting and burning during the town's destruction by invaders (ca. 1460/40 BC) (MacGillivray, Driessen & Sackett, 2000).

The children visited the exact location of the archaeological site where they were introduced to the archaeological context of the Kouros discovery and supplied with the above archaeological information, apart from the excavators' interpretation. Then, they were urged to search the ground to discover fragments of the Palaikastro Kouros that had originally been discovered in the same place. The participants collected a number of cardboard pieces of the Kouros scattered among different spots inside and in the general area of the building, as had actually happened during the excavation, and put them together to create the half-metre figurine, almost the same size as the original one (Figure 2). Finally, they were encouraged to reflect and

hypothesise about why and how that figurine had been destroyed, shattered and discarded over such an extensive area.



**Figure 2.** Reconstructing the Kouros figurine from pieces. Photo: Kostas Kasvikis, 2016.

The children formulated various theories that either overlooked, or incorporated all or much of the archaeological data presented to them. Initially, they took advantage of historical information and data from both formal education (history textbooks) and informal education (documentaries, data from a guided tour of the Sitia Archaeological Museum), including references to King Minos, attributions to the Thera volcano eruption and subsequent tsunami etc.:

*“It might have happened at night. Here, there could have been torches lit for people to see and then a major earthquake happened and the fire fell and spread all over the place including to the area where the Kouros was. After that it would have broken into pieces and was spread around by the people in their panic.”* (Boy, 11 years old).

In both seasonal implementations (2013, 2016), participants, at the beginning, mostly preferred attributing physical destruction to non-human agents as explanations for the smashing and dispersal of the Kouros, rather than human actions or broader social conditions. Nevertheless, when they started to elaborate their interpretations, conversing with each other and interacting with the archaeological educator, they proceeded to a limited consideration of agency, mostly focusing on the role of the individual or powerful groups (such as aggressive enemies):

*“I believe that besiegers came, burned the building, and when the building started to fall apart, the Kouros, which was on the upper floor, fell and was scattered by the wind.”* (Boy, 12 years old).



Their responses reveal the broader difficulties for students to provide non-simplified views and understand the complex nature of agency, which is a more general problem of history education worldwide due to a lack of special attention to agency as a key historical concept in history textbooks and teaching practices, which has also seen relatively limited research (for an overview, see Wilke, Depaepe & Van Nieuwenhuyse, 2019, pp. 53-79). Many of the children's interpretations were very convincing and plausible. In many instances, although they began in a very dynamic way, eventually they failed to explain the final fragmentation and widespread spatial dispersion of the figurine, showing difficulties in factoring in all the available data.

During this process, they were reminded of the excavation data or provided with new information (the distance between the different pieces of Kouros, its burned state, the probable second floor of the houses, a possible base for the statue inside the building) in order to elaborate upon their inferences:

*"When the second floor collapsed, it might have fallen on the Kouros and broken it, and then, as the stones were falling with force it may have been scattered and taken out with the wind. Or after that (the destruction caused by the collapse of the second floor) they may have been cleaning up the space and carelessly thrown out half of the Kouros."* (Girl, 12 years old).

Participants were given the opportunity to provide a second or third interpretation building on new information and elaborating on their co-participants views:

*"There could have been a war and the warriors hit and broke (the Kouros), and then they threw the pieces around inside and outside (the building)."* (Girl, 12 years old).

Finally, they were given the archaeologists' interpretation which they evaluated and discussed, stressing, amongst others, the difficulties archaeologists face in providing interpretations. Young participants recognized the possibility of different behaviours by people in the past concerning their actions that led to the Kouros' destruction. The final conclusion of one girl participating in the 2013 season was that archaeologists "*use lots of imagination*" for explaining what happened on the past. In both years of implementation, the children commented on the difficulty in reaching a final, definite conclusion.

The Kouros activity was important for a variety of reasons, as students were motivated to contemplate the archaeological artefact itself and the context in which it was found, in order to develop historical reasoning (e.g. Van Boxtel & Van Drie, 2018), to reach conclusions and to create their own historical accounts of what happened in the past. Due to that, through this activity, participants appreciated the importance of historical (in our case the archaeological) context as indispensable and relevant for identifying meanings and interpreting (material) evidence (see also Arias Ferrer & Egea Vivancos, 2017, p. 104). In addition, they appreciated the fact that the past isn't fixed and that historical interpretations are constructed through

available evidence (Lee, 2011, p. 136) that might be fragmentary, dubious or distorted as in the case of Palaikastro Kouros.

Finally, through facing and being challenged by conflicting narratives and interpretations about the Kouros, participants explored multiple perspectives (the “official” account of the excavators, that of the archaeological educator and their own) which is a desideratum for developing historical thinking. It complies with what Wansink et al. (2018, pp. 496-499) call the “third temporary level” of contemporary perspective taking about an event, phenomenon or figure, based on the *“the realization that perspectives are personal and that teachers and students themselves are consumers of history, critically or uncritically accepting the constructions presented by others or even making their own constructions of the past”*. In addition, multiperspectivity is at the core of post-processual ideas in archaeological education in the broader context of the social-constructivism approach of learning in authentic contexts such as archaeological excavations, museums and heritage sites (Cole, 2015, p. 121).

Overall, the activity of responding to and collaboratively solving an archaeological problem enabled students to realize the nature of evidence, to reflect and share ideas, to recognize different points of view in the present and explore multiperspectivity concerning an event from the past based on archaeological evidence and to construct their own historical accounts to interpret the destruction of the Kouros giving multi-causal explanations (Counsel, 2000, p. 57). Most importantly, students had the opportunity to deal with contingency when analysing and interpreting historical evidence, in our case, archaeological finds.

### ***Case Study 3: Study and Interpretation of Archaeological Finds***

Activity 10 (2014) required students to study and interpret a segment of a large storage vessel (pithos) that they discovered in their own “real” simulated dig (Activity 7) and Activity 11 (2016) called on them to do the same with three original excavation findings. In the first case students knew the context of the vessel’s discovery, while in the second they had the opportunity to study aspects of the Minoan past, investigating authentic artefacts from the Minoan period. In both activities source-based historical thinking skills were fostered (Grant, 2018, pp. 431-432), as the children, while examining archaeological artefacts, were making inferences, building hypotheses, and drawing conclusions through observation, classification, analysis, reflection and interpretation of cultural material as evidence of the past. In addition, as in many other activities implemented in the context of the Palaikastro educational project (Activities 2, 6: Table 1), through historical inquiry participants advanced their competences of contextualization and argumentation and developed historical reasoning (Van Boxtel & Van Drie, 2018).

In Activity 10, a large piece of a storage vessel (pithos), that participants discovered during their participation in a “simulated” excavation in the same area where the original excavation was happening, became the subject of inquiry and analysis. Children had already acquired knowledge and skills from their participation in other activities over the previous days (Activities 2 and 3: Table 1) combined with the experience and data gained from the “simulated” excavation. They were firstly asked to pose questions about what they would like to know about their finding. One of the purposes of this activity was for the children to realise that objects reveal historical information about people in the past, on the condition that the right questions are formulated. Participants proposed a number of questions regarding the dating, use, and construction of the object. Then they were intrigued that they weren’t going to get those answers from the archaeological educator, but rather they would play a game where their questions should contain some of their own assumptions, knowledge or observations about the artefact being studied and be formulated in such a way so that they could be answered with a “yes” or “no” by the educator.

Through this process the kids were compelled to reconsider some of the archaeological evidence, for example that the pithos wasn’t discovered in its entirety, the fact that no seeds or shells were found in the excavated content but only small ceramic shreds. They were also curious with regards to its real dimensions (the height and diameter of the rim, which they measured) and examined the pithos’ features (exterior decoration, profile, incisions and the internal rings left by the pottery wheel) (Figure 3). Students then circulated dozens of questions to which the archaeological educator answered positively or negatively, explaining where possible why some things could not have happened or providing additional archaeological information to guide the children’s thinking for subsequent questions. As an outcome of the process, the children managed to “decipher” the Minoan pithos to a great extent and to suggest different – more or less – contextual interpretations.



**Figure 3.** Investigating the pithos. Photo: Kostas Kasvikis, 2014.

This activity (as with many others in the Palaikastro educational project) was based on the value of questions to drive historical analysis (e.g. Arias Ferrer & Egea Vivancos, 2017, p. 92). In this case, students posed suitable questions for examining archaeological artefacts not only to elicit information, but to actively construct historical knowledge, reflecting on the possibilities and constraints of archaeological remains as historical evidence. In this way they also managed to identify the relevance of the questions they were trying to pose with regards to the pithos in order to elicit meanings and acquire a considered perspective of the nature of relationships between human society and “things” (Hodder, 2012).

This educational activity was completed by assigning children three different creative activities that could be carried out individually or in groups: 1) to think as archaeologists and write a text that presented the particular artefact; 2) to act as conservators and create a drawing of the whole pithos restored to its full dimensions; and 3) to play the role of museologists and design the exhibition of their restored pithos in the archaeological museum of Sitia and to write an exhibition caption. Through this task they constructed different and/or alternative historical accounts based on an artefact, knowing its archaeological context.

The first group (“the archaeologists”) prepared a typical archaeological report of the artefact, describing its context of discovery, form, conditions and chronology, but, on their own initiative, they also produced a second text, a fictional story entitled “The Cursed Pithos”. Participants employed their creativity to create fictional characters, events and facts related to the artefact, and thus render an imaginative alternative narrative of the biography of the artefact from its creation to its final destruction, which was carried out in order to break the curse, which had affected the lives of the people associated with the vessel and had been wrought upon it by the clay digger over a payment dispute. The second group (“the conservators”) delivered several figurative representations of their views of the restoration of the Minoan pithos as a whole and a written account (a story). The narrator of the account was the pithos itself, who decided to tell its story and recall its creation by a Minoan craftsman, around 1,500 BC., its partial discovery by child-volunteers at the excavations of Palaikastro 2014, and the fact that it is an object of observation and research by archaeologists that seek to reconstruct its history. Finally, the group of museologists prepared visual representations of how the discovered pithos should be exhibited in the local museum, and composed an account describing the archaeological context of the pithos’ discovery and its function as well as museum exhibition captions articulating almost the same issues.

The children presented and discussed their different written and visual accounts and commented on their multiple interpretations derived from the artefact. As in the case of the Kouros activity, the task of studying the Pithos segment was indicative of the importance of examining how children conceptualize historical accounts, as

these represent the media of communicating and teaching about the past, and most of the times are diverse or conflicting (Cercadillo, Chapman & Lee, 2017, p. 533).

In 2016, no opportunity for observing or participating in the excavation existed (it was a study season for the excavation project), so the children were instead familiarized with the archaeologists work of analysing the archaeological findings, through Activity 11, investigating authentic artefacts. The participants, working in three groups, undertook an object-study task (Durbin, Morris & Wilkinson, 1990) examining three different artefacts from the recent Palaikastro excavations: a vessel (preserved almost in its entirety apart from the upper part), a clay figurine, probably of a male worshipper (only the torso and one hand in the adoration position) and the clay head of a pig figurine. The children were given the scenario that these artefacts were representative finds of the Palaikastro excavation and were encouraged to make observations, draw conclusions and build interpretations based on the pre-historic remains with the purpose of understanding the material aspects of Minoan life, such as economy, ideology, technology, and religion. Their inquiry was based on worksheets that firstly required them to make descriptions of the external features (shape, size, weight, colours, etc.) of the objects and to record their dimensions, materials, and decorations. Then they were asked to deduce and suggest the possible chronology, functions, contexts of manufacture and usages, users of the objects and to define the artefacts' value and significance for people in the past and present (Figure 4). In this process the children utilized their experience from a number of activities they had participated in during the educational project of 2016 (for example Activities 4, 6 and 8) and contributed with their own personal knowledge and views. In addition, the three different groups interacted with each other presenting their inquiry results, commenting, discussing and elaborating on their inferences and interpretations.



**Figure 4.** Interpreting an original Palaikastro artefact. Photo: Kostas Kasvikis, 2016.

Several benefits for developing historical thinking arose from this activity. The children worked with evidence to acquire meaning about the past and made inferences despite the fact that their interpretations in many instances were based on their own microtheories, or even distorted perceptions about the past (e.g. in terms of gender, presentism, localism, anachronism). In addition, among the benefits of the activity was gaining appreciation of historical significance through studying archaeological artefacts as evidence of the past. The children, through worksheet-based guided inquiry, expressed their arguments about the value of these artefacts in the past (for their manufacturers and users) and in the present (their values for us today). They gave multifold opinions concerning the significance of these artefacts, stressing their economic, and also their emotional and personal value, their significance for their makers, and the strong emotional, as well as multiple functional and symbolic, significance for the users. Finally, all groups of participants focused on the disciplinary values of the artefacts they investigated, indicating their historical and informative significance while some children also pinpointed the significance of these artefacts as a means for understanding the Minoan civilization and as being important to be exhibited in a museum.

Identifying historical significance through material culture is an interesting possibility of both history teaching and archaeological education, not only as a means of identifying attitudes towards awareness concerning archaeological heritage management, but also as a vehicle for examining children's perceptions about the past, based on their own modes of understanding, needs, and abilities, and their cultural and societal backgrounds. As already discussed, current research on historical thinking indicates the influence of the socio-cultural milieu in which learning takes place in different cultural settings, and of factors such as identity and culture, in the development of children's ideas about the significance of the past (see Levesque & Clark, 2018, p.135 for further bibliography). In the case of the Palaikastro educational project these ideas on the values and significance of material culture that young participants, as members of the local society expressed, seem to be affected by their collective memory and the broader modes of consuming the Minoan past in formal and informal education (e.g. Hamilakis & Momigliano, 2006).

## **Conclusions**

The aim of this study was to explore the nature and significance of archaeological education to historical thinking and understanding in the context of the Palaikastro educational project. Based on the assumption that archaeological knowledge, sources and methods provide a range of opportunities for historical learning, 11 different education and outreach activities were realized in the three-year implementation of the educational project and for the purpose of the present study were reconsidered through the lens of the theory and practice of historical thinking.

It is concluded that the children of 10-12 years old who participated in the educational activities, implemented in different learning environments, including the local school, archaeological sites, the excavation area and excavation laboratories: were encouraged to explore and learn about the past realising the evidentiary function of archaeological artefacts; understood historical concepts in certain archaeological situations; made inferences from archaeological sources and contexts and created their own accounts, narratives and interpretations of the past; and realized the fragmented nature of evidence and the uncertainty of the past. In addition, the children were physically, mentally, and emotionally related to their local history and became aware of the relevance of the past to the present through archaeological heritage.

The detailed examination of the educational frameworks developed in the specific cases of activities, naturalistic observations by the educator and the analysis of the available data and of children's written and oral accounts and outcomes, indicate the contribution of archaeology-related educational activities to the participants' elaboration of concepts of time, agency, multiperspectivity, significance, causality, and the development of skills of historical inquiry, interpretation and understanding of competing accounts. It was also revealed that material culture can contribute fundamentally to students' development of historical thinking concepts and skills through applying certain theoretical insights and practical preconditions of education and archaeology. Introducing educational strategies of well-structured activities that involve inquiry-based methods, experiential learning and support reflection about the past based on archaeological heritage, is fundamental but not sufficient without anchoring the archaeological theory that emphasizes the role of the individual in human society, alternative interpretations and the significance of context, characteristic of a post-processual perspective. This final remark is indicative of the affordances and limitations between archaeological education and historical thinking when the didactic approaches orientate towards conventional teaching methods and considerations based solely on cultural-historical and/or processual archaeologies.

In my opinion, the contribution of archaeological heritage to historical thinking is not simply a matter of the nature of archaeology as a fascinating scientific adventure that reconstructs the past through investigation and interpretation of material culture but is dependent on the broader role of the discipline as a dialogue between the past and the present and as a field of critical self-reflection.

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## **PART 2**

### **CASE STUDIES ON ARTEFACTS**

**USING ARTEFACTS TO TEACH HISTORICAL THINKING SKILLS  
TO YOUNG CHILDREN  
(Hilary Cooper)**

**MEANINGS OF ARCHAEOLOGICAL ARTEFACTS  
FOR HISTORY EDUCATION  
(Isabel Barca, Flávio Ribeiro)**

**LEARNING HISTORY BY INFERRING FROM  
ARCHAEOLOGICAL OBJECTS IN THE CLASSROOM  
(Helena Pinto)**

**WHAT 'REMAINS' OF THE PAST?  
HISTORICAL THINKING THROUGH HISTORICAL ENQUIRY  
(Georgia Kouser)**



## USING ARTEFACTS TO TEACH HISTORICAL THINKING SKILLS TO YOUNG CHILDREN

### Abstract

This chapter draws on a case study that applies the constructivist learning theories of Piaget, Vygotsky and Bruner to investigate ways in which young children can actively engage with historical artefacts. Teaching strategies include an integrated curriculum, site visits, teaching abstract concepts and, most importantly, whole class teaching which models historical enquiry through discussion. Data of pupil responses to previously unseen artefacts are collected at the end of each of four five-week units, through individual paper and pencil tests and recorded group discussions. These are assessed using a ten point assessment scale based on previous research and related literature. Statistical analyses found a continuous increase, over 4 units, in the quality of deductions and inferences about artefacts made by pupils taught using these teaching strategies.

**KEY WORDS:** HISTORICAL ARTEFACTS, CONSTRUCTIVIST TEACHING AND LEARNING, ASSESSMENT OF HISTORICAL THINKING, DISCUSSION OF ARTEFACTS.

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## USING ARTEFACTS TO TEACH HISTORICAL THINKING SKILLS TO YOUNG CHILDREN

### Aims of the Study

The larger case study (Cooper, 1991), from which this chapter on artefacts is drawn, investigated how whole-class teaching, based on discussion of historical sources impacted on eight-year old pupils' metacognition of the processes of historical enquiry. It aimed to reflect the enquiry approach of Collingwood (1946) who used examples from archaeology to explain his method of enquiry, based on his sequence of questioning. Collingwood (1946) proceeded from specific questions about the significance and purpose of artefacts to the people who made and used them, whether they were buttons, dwellings or settlements. For example he knew, from concrete evidence, that a Roman wall from the river Tyne to the Solway existed. He guessed that its purpose was to form a sentry walk with parapets to protect against snipers. He wanted to know if there were towers as a defence against vessels trying to land. He discovered that there were but their existence had been forgotten because their purpose had not been questioned. In this study children also learned to differentiate between knowing, hypotheses and what is not known.

The study aimed to establish links between Collingwood's processes of historical enquiry and teaching approaches based on constructivist theories of learning. It aimed to investigate to what extent children use 'because' in the ways that Piaget (1926) describes, the ways in which discussion with others can raise the level of thinking (Vygotsky, 1962), the ways in which children learn to use new and abstract concepts (Vygotsky, 1978) and the ways in which children can apply enquiry processes to new material (Bruner, 1966). It aimed to enable each child to think in these ways at the highest possible level.

### Description of the Sample of Children

Two groups of twenty children in the 8-9 age-range, in the same school, were taught and assessed by the researcher in two consecutive years. The same lesson plans and teaching strategies were used for each group. Each group, which was a section of a complete class and therefore a non-random group, studied the same periods over the same time span, based on the same lesson plans and completed the same paper and pencil test at the end of each unit. There was also a group of the same age in another school, who learned the same periods of history over the same time span and was tested using the same written tests. This group was taught using 'traditional didactic

teaching methods.' The purpose of including this group children was to compare the responses of those of the groups taught by the researcher.

Each group was given the National Foundation for Educational Research (NFER) BD test 28 to provide a measure of general ability. A one-way analysis of variance, used to test the null hypothesis of no difference in general ability between the groups showed no difference (F value, 0.8 df 2,57).

## Teaching Strategies for Groups 1 and 2

### *Cross-Curricular Approaches, Local and More Distant Site Visits*

The purpose of a cross-curricular approach was to immerse the children in each period they were studying and to make meaningful connections across the curriculum. Links were made between artefacts and technology, fictional and non-fictional literature, mathematics, sciences and art. During each period there was a visit to a local site where evidence from the period had been found, and to a more distant site, aiming to make connections between local, national and international history in each period and also to give children experience of sites where artefacts of each period had been found. Table 1 shows the site visits during each unit of study.

| Unit | Locality                          | Further afield   |
|------|-----------------------------------|--|
| 1    | Farthing Down, Coulsdon, Surrey   | Grimes Graves, Norfolk   |
| 2    | Farthing Down<br>Coulsdin, Surrey | British Prehistory Room British Museum   |
| 3    | Riddlesdown<br>Surrey             | Lullington Roman Villa   |
| 4    | Bradmore Green, Surrey            | Aklowa (West African Village Herts)*<br><br>*Aklowa was chosen as an example of life in a small, subsistence Farming community |

**Table 1** showing site visits during each unit of study.

### *Units of Study*

The four units studied were the Stone Ages, the Iron Age, the Romans and the Saxons. This was because Bruner said that simple societies offer the best introduction to understanding the nature of man and society; these periods offer parallels with his Man a Course of Study (MACOS) project in the 1970s (see Bruner, 1961). In addition, there was local evidence of settlement during each period, but little

written evidence, which allowed for more valid 'guesses'. Collingwood (1939) said that literary sources blur the issues by repeating the authorities rather than asking questions of them.

Each unit lasted for five weeks. Every week there was one history lesson lasting over two 45 minute sessions. Each weekly lesson involved whole class discussion of one type of historical source (artefact, image, diagram, map and a written source). This chapter focuses on the lessons involving artefacts, although the same teaching approach was reinforced by applying it to each kind of historical source. The lesson plans in each unit involved key sources about evidence of settlement, daily life and belief; the contextual information. The lessons aimed to teach children to search for likenesses beneath the surface of diversity (Bruner, 1966) and to analyse information and order it in ways that permit interpretation and extrapolation across units (Bruner, 1963). The structure of all the lesson plans was the same, so that children might consistently build on their understanding of the processes of historical enquiry. Lesson plans can be found in appendices 1-3.

## ***Lesson Structure***

Lesson structure reflected learning theories of Bruner, Piaget and Vygotsky in the following ways.

### *Bruner and the Pattern of Whole Class Lessons*

Bruner (1963) set out the principles whereby a discipline should be structured, so that the thinking processes and concepts that lie at the heart of it can be tackled from the very beginning in their simplest form, then in increasingly complex ways. To do this Bruner said that teaching materials must be revised in such a way that powerful ideas and attitudes relating to it are given a central role. In 1966 he said that this involved translating a subject into appropriate forms of representation which place emphasis on physical and sensory experiences (kinaesthetic), on appropriate imagery and on a set of logical propositions governed by rules (symbolic). Hence the focus on a sequence of units building on lesson plans with the same structure centred on concepts concerned with powerful ideas (beliefs, community, social organization), represented by physical, sensory artefacts explored through a set of logical propositions and questions. He said that the learner must be led through a series of statements and restatements that increase the ability to grasp, transform and transfer what has been learned to new material. Therefore the assessment strategies were organized in units, each building on the foundation of the previous one. Problems, Bruner said, must involve the right degree of uncertainty in order to be interesting, so it was made clear to the pupils that there were no single correct answers to the



questions but they needed to give reasons for their arguments and listen to those of others, possibly changing their minds as a result.

In each unit a photograph of an artefact was projected onto a large screen. The whole class discussed the same three questions about each piece of evidence, based on Collingwood's process of enquiry.

- What do you know FOR CERTAIN about this source?
- What REASONABLE GUESSES (hypotheses) can you make about it?
- What would you LIKE TO KNOW about it?

Through discussing each of the three questions and collating notes of their responses on a whiteboard under each heading, it was hoped that the children would learn to reflect on the difference between knowing, probability/possibility hypotheses and not knowing and to transfer these thinking patterns to new evidence (Bruner, 1966). (Lesson plans are given in appendices 1-3.)

### *Piaget, Explaining and Defending an Argument*

Although the rigidity of Piaget's sequence in the development of logical thinking can be criticized and, although his experiments are generally concerned with manipulating physical objects in scientific ways, it seems reasonable to test his claims in relation to thinking about historical artefacts. This may be appropriate at the concrete stage of development when Piaget claims that children are able to take in information from the tangible and visible world, fit it into their own mental patterns – adjusting these sometimes to accommodate new information – and to store it and use it selectively to address new problems – another reason for sequenced units.

At a concrete stage of operations Piaget (1926) claims that children can form a reasonable premise and support it with a logical argument. They attempt to justify and demonstrate an assertion by using a conjunction (since, because, therefore), although they do not necessarily succeed in expressing a truly logical relationship. He says (1928) that children arrive at genuine argument through frequent attempts to justify their own opinions and avoid contradictions and are able to use 'because' and 'therefore' correctly to relate an argument to its premise, by an appeal their own authority and that of others. Discussion therefore has an important role. Vygotsky (1962) also shows that, between seven and nine years old children are increasingly able to form logical deductions in which factual claims are supported by reference to the evidence, using 'therefore' or 'because'.

With this in mind children in this study were encouraged, in response to their initial answer to each of the three questions above, to explain their thinking with a further clause. For example in question 1, 'I know this for certain... Therefore...' In question 2, 'I guess this... Therefore...' reflects Piaget's (1975) claim that at a concrete level,

children have an increasing awareness of what we know and what we can guess. Question 3, investigated children's acceptance that there are some things about the past which we do not know but that history is dynamic and new evidence provides new information so they were asked, 'What would you like to know, because...' (see Figure 1).

### *Vygotsky, Concept Development and Discussion*

Vygotsky (1962) showed that concepts are learned, not through ready-made definitions but by abstracting common characteristics, through trial and error and experience. He suggested that concept development could be promoted by careful use of language and that concepts which are specially taught, because they belong to a particular discipline and are not acquired spontaneously, are learned more conscientiously and completely. The significant use of a new concept promotes intellectual growth. Following Vygotsky others investigated how concepts at different levels of abstraction might best be taught. Klausmeier (1979) found that the common features of concrete concepts, such as axes, scrapers and flakes, can be identified through discussion, leading to a more abstract concept, tools. Spears, and bows-and-arrows and harpoons have common purposes and so are weapons. At a further level of abstraction no images can not be held in mind so that language is essential in leading to discussion of overarching concepts such as power. Tools and weapons convey power. Other research endorsed the possibility that cognitive growth comes through social interaction. (Doise, Mugny & Perret Clermont, 1975; Doise, 1978; Doise & Mugny, 1979) showed that collective conflict of viewpoint is more effective than individual conflict and saw this interaction occurring at different cognitive levels. This reflects Vygotsky's *Mind in Society* (1978), where he introduces the concept of the Zone of Proximal Development, which suggests that children are helped to learn by working with someone at a slightly more advanced level than their own, or with a teacher.

Although Piaget concentrated on the interaction of individual children and their physical environment he also argued that conflicting viewpoints lead, at a concrete stage to decentration, the ability to consider multiple aspects of a situation. He, like Vygotsky, recognized the importance of discussion and interaction.

Based on Vygotsky's work on how concepts central to a discipline are learned, at different levels, through carefully selected visual examples and teacher-led pupil discussion, new concepts related to each lesson were introduced, with visual examples at concrete a concrete level. Their common features were explored, which led to a general classification (e.g. 'tools' and 'weapons'). Children were encouraged to use these words in further class discussions related to new material. They also learned them as 'spellings'. In the same way they learned major organizing ideas that run through societies: communication, power, values, beliefs. Some were open concepts

not exclusively related to history: trade, law, agriculture. Some were related to a particular period but not in use today: lynchet, wattle and daub, ealdorman. Children loved the challenge of using learning unusual words. Appendices 1-3, Lesson Plans, show how selected concepts were integrated into the whole class discussions.

## Data Collection: Unit 1 – Paleolithic Flint Axes

### *Individual Written Tests*

At the end of each unit the pupils were shown images of each of the five kinds of sources, but examples which they had not previously seen, on five consecutive mornings, and asked to complete individual ‘archaeologists’ reports’. The five artefacts used in the written tests are shown in Table 2. There was no time limit and they worked in silence (see Figure 1).

The archaeologist’s report was designed to encourage children to use a logical connective to form an argument based on a premise, to form two such arguments, and to use an abstract concept to synthesise the two statements, in the third column labelled ‘Conclusion’. The three questions encouraged them to make a distinction between knowing, ‘guessing’ and not knowing.

| Evidence                                     | Date             | Archaeologist’s number |
|--|------------------|------------------------|
| What do you know <u>for certain</u> ?        |                  |                        |
|  | <u>Therefore</u> | Conclusion             |
|  | <u>Therefore</u> |                        |
| What reasonable <u>guesses</u> can you make? |                  |                        |
|  | <u>Therefore</u> | Conclusion             |
|  | <u>Therefore</u> |                        |
| What would you <u>like to know</u> ?         |                  |                        |
|  | <u>Because</u>   | Conclusion             |
|  | <u>Because</u>   |                        |

**Figure 1.** Archaeologist’s report sheet designed to reflect thinking patterns learned in whole class lessons (A4 paper).

| Unit 1<br>Stone Ages                       | Unit 2<br>Iron Age  | Unit 3<br>Romans                   | Unit 4<br>Saxons   |
|--|---|------------------------------------|--|
| Paleolithic flint hand-axes<br>200,000 BCE | Bronze helmet found in<br>River Thames<br>first century BCE | Shield boss found in River<br>Tyne | Replica of Scepter; Sutton Hoo<br>ship burial<br>Early seventh century BCE |
| Slide: Museum of London                    | Slide: British Museum                                       | Slide British Museum               | Slide: British Museum  |

**Table 2** showing artefacts used in written evidence tests.

## **Oral Evidence Tests**

### *Small Group Discussion with the Teacher Present*

Children in the first cohort made a tape-recorded discussion of each source used in the written evidence tests, in groups of five. The teacher intervened minimally, to prompt or cue. The discussion lasted 30 minutes.

### *Discussion Groups with No Adult Present*

The second cohort, taught in the following year, made tape recordings of each source, in a room with no adult was present. They were simply asked to 'discuss this evidence'. There was no time limit but discussions lasted about 30 minutes.

## **Assessment of Data: Construction of a Ten-Point Scale**

This scale was applied to both the written and oral tests. It was based on learning theories in *The Language and Thought of the Child* (Piaget, 1926) and *Judgement and Reasoning in the Child* (Piaget, 1928) on Vygotsky (1962) and his successors' work on concept development and on previous small-scale research applying cognitive development to history. The scale, outlined below, attempts to trace the embryonic stages in learning to form arguments about historical sources.

| Level                                | Previous research   |
|--------------------------------------|---|
| Level 1<br>Egocentric                | Illogical. Leaps to unreasonable conclusions in one bound without attempting to prove or check (Piaget, 1926)<br>'Pre-operational' responses, illogical and unrelated (Peel, 1960)<br>Unable to reverse operations (Lodwick, 1960)<br>Misunderstanding and tautology at 'pre-operational' level (Thompson, 1962)<br>No attempt to apply the information given (Booth, 1969)<br>No explanation given (Rees, 1967)<br>Illogical response at lowest level (Cooper, 1982)   |
| Level 2<br>Descriptive (i)           | Attempt to communicate intellectual processes to reader; these are factual and descriptive and show incipient logic which is not expressed; adapted information (Piaget, 1926)  |
| Level 3<br>Descriptive (ii)          | Statements of fact or description but argument is not supported with a reason (Piaget, 1926)<br>At a concrete level children restate the evidence (Peel, 1960)<br>Children reverse their thinking but only repeat the information given (Thompson, 1962)<br>At a second level no attempt to go beyond the information given (Booth, 1979)   |
| Level 4<br>Primitive Argument        | Primitive argument begins with the statement of an opinion but the explanation for the deduction is only implicit or expressed in disconnected statements (Piaget, 1926)  |
| Level 5                              | Logical deductions consist of one, two or more propositions which must be assumed to be true, to obtain a further statement which follows logically and necessarily from the first proposition (Peel, 1964)<br>An increase with age in the number of statements supported by evidence (Cooper, 1982)  |
| Level 6                              | Attempt to justify assertion by using a conjunction (therefore, because) but logical connection between assertion and the evidence is inadequately expressed<br>The young child (7-8) rarely spontaneously uses 'because' or 'although' and if forced to finish a sentence, uses them as a substitute for, 'and' (Piaget, 1928)<br>Children who have been taught specialized concepts and consciously been taught to use 'because' are more able to use them to complete a sentence fragment ending in 'because' (Shif, 1935) |
| Level 7<br>Genuine Argument (i)      | A statement using 'therefore' or 'because' correctly<br>Because becomes more frequent at about 8 years old in attempts to systematize one's own opinions, to avoid contradictions and as the result of internal debate (Piaget, 1926)<br>Children of 8-9 are able to complete a sentence fragment using because if this has been previously taught (Shif, 1935)<br>Increase with age of properly used conjunctions (Cooper, 1982)   |
| Level 8<br>Genuine Argument (ii)     | Two premises, each followed by a correctly used causal conjunction. If two premises were given with each followed by an argument connected by a conjunction it seems that this pattern of reasoning is securely established.  |
| Level 9<br>Integrative Thought (i)   | An attempt to synthesise previous arguments in the conclusion<br>Explainer stage of weighted arguments using abstract prepositions (Peel, 1960)<br>A child is finally able to formulate a rule which established a relationship between concepts (Vygotsky et al.)  |
| Level 10<br>Integrative Thought (ii) | Previous arguments synthesized using one of the taught superordinate concepts (e.g. agriculture, community, trade)<br>Synthesis of statements to create an abstract idea (Vygotsky and Piaget)<br>Concept formation making inferences and learning to generalize from specific data to provide a cumulative sequence in the development of thought  |

**Table 3** outlines ten levels in embryonic stages of learning to form arguments about historical sources suggested by previous research.

In assessing responses in the oral tests A4 pages were divided horizontally into ten sections representing the ten levels. A brief note of each statement made was written under the appropriate level. Arrows to the right show how a premise made by one child is developed as an argument by another child. Arrows to the left show how higher level general statements lead back to another simpler premise, which usually develops into another argument. This process was designed to show interactions within the group: building arguments, making generalisations and moving back and forth between the particular and the general (Bruner, 1966, p. 49).

The written evidence tests were assessed by the researcher and another marker. Reliability in assessment between the researcher and the independent observer, using the 10 point scale, was calculated using Cohen's (1968) Kappa coefficient across the ten categories of scores shown in Table 3. The value of Kappa is 0.764 with a Z value of 14.46, showed a very high degree of agreement between the two raters.

## **Analysis and Discussion of the Findings: Unit 1 – The Stone Ages**

The archaeologists' written reports for units one, two and four were all analysed using the assessment scale in Table 3. Examples of responses to the Paleolithic hand axe heads are given at each level in the section below. Then different aspects of the data are analysed. Examples are given of the use of taught concepts in the written and oral tests, a comparison of the led and unled discussion groups, a comparison of written and oral responses, and an analysis of the ways in which children's responses reflected Collingwood's three questions. Finally there is an exploration of how children drew on background knowledge and how they referred to beliefs, values and social organization in societies different from their own.

### ***'Archaeologists' Reports: Examples of Levels of Response to the Paleolithic Axe Heads***

Examples are given of responses at each category of response, to the three questions, (What do you KNOW, What can you 'GUESS', What would you LIKE TO KNOW). These show the flavour and variety of answers, the appropriateness of the levels, and the need, sometimes, to look for logical thinking behind an answer. Donaldson (1978) pointed out that it is important to look behind the surface of an answer to the logic the child is grappling with to apply to a problem, which might be less clear than a 'pat' or learned answer but reflect real problem-solving and creative thought.

1. Egocentric (illogical)

Qu. 1: Their skulls weren't the same.

Qu. 2: They can't go to the shops.

Qu. 3: What were the children's games like?

## 2. Descriptive 1 (Attempt at logical deduction, inadequately expressed)

Qu. 1: Axe, dagger – split things.

Qu. 2: If they used spears we could know what animals they killed.

Qu. 3: I want to know how they did not cut their hands when they made the axe.

## 3. Descriptive 2 (Repeating information given)

Qu. 1: They have been carved to make tools.

Qu. 2: They are sharp and they have been carved all around.

Qu. 3: Where in the world they got the flint.

## 4. Primitive argument 1 (Going beyond the information given)

Qu. 1: The people were good craft makers because they made good tools.

Qu. 2: They made smaller weapons the smaller the animal.

Qu. 3: How did they eat when they didn't know how to make weapons?

## 5. Primitive argument 11 (Two statements going beyond the information given)

Qu. 1: I know they used flint for tools and tools for killing animals.

Qu. 2: They could have been used for chipping flint out of a mine or for chipping wood out of trees.

Qu. 3: I would like to know how cavemen learned to hunt animals and how they cured the Stone Age men when the animals hurt them.

## 6. Incipient argument (Attempt to use 'therefore' or 'because' but causal connection inadequately expressed.)

Qu. 1: We know they made axes to chop down trees for fire from this and they used flint. Therefore they used the flint for fire to keep warm under the trees.

Qu. 2: They had different sorts of flint. Therefore they lived in different places.

Qu. 3: I would like to know who invented it because if he/she invented it and nobody else did he might be the only person allowed to invent.

## 7. Genuine argument 1 (Correct use of therefore and because)

Qu. 1: They thought and worked. Therefore they're intelligent people.

Qu. 2: They used them for killing animals. Therefore they might have used the skin for beds and to cover their wives' babies.

Qu. 3: Did they make a lot of axes and did the axes always work, because then I would know if they made a flint axe everyday or if they sharpened them.

## 8. Genuine argument 2 (Two arguments, each using 'therefore' or 'because' correctly)

Qu. 1: They found flint in the ground. They made hand axes. Therefore they used them for killing animals and therefore they ate meat.

Qu. 2: They must have had antlers to shape the flint, because of the dents. Therefore they must have known the season the deer dropped their antlers and therefore the sun must have been a clock for the Stone Age people.

Qu. 3: I would like to know if they had spear heads or axe heads because you could tell if they were from Paleolithic or Mesolithic times, and I would like to know where they got the flint from because then you could tell if they lived near a flint shaft.

## 9. Integrative thought (Two arguments using 'therefore' or 'because' correctly followed by a synthesizing statement.)

Qu. 1: Flint was chipped. Therefore they knew how to make arrows and spearheads. And they are different sizes, therefore they knew which size they needed for different weapons. Therefore they were not primitive.

Qu. 2: The small black one could be a hand axe. Therefore they could decorate things. It could be the chief's wife's. Therefore they had ornamental tools. They had begun to take pleasure in themselves.

10. Integrative thought (As above, using a superordinate concept in the synthesizing statement)

There were no responses in Unit 1 test 1 at this level.

### ***Spontaneous Use of Taught Concepts***

Table 4 shows that some children are beginning to use concepts used in the class discussions spontaneously in their written archaeologists' tests and oral discussions.

| Taught concepts used in lessons | Number of children in Unit 1 (Stone Ages) using each concept spontaneously. |  |  |
|---------------------------------|---|--|--|
|                                 | Cohort 2<br>Written test  | Cohort 1<br>Discussions with teacher to<br>prompt and clue | Cohort 2<br>Group discussions with no<br>adult present |
| <b>Concrete</b>                 |   |  |  |
| axe                             | 10  | 2  | 2  |
| bows and arrows                 | 8   | 2  | 2  |
| antlers                         | 1   |  |  |
| flint                           | 22  | 7  | 4  |
| archaeologist                   | 8   |  |  |
| <b>Abstract</b>                 |   |  |  |
| weapons                         | 16  | 6  |  |
| tools                           | 9   | 4  |  |
| invent                          | 2   | 6  |  |
| hunt                            | 15  | 4  |  |
| crops                           | 2   |  |  |
| trade                           | 1   | 6  |  |
| control                         | 1   | 2  |  |
| protect                         | 1   |  | 2  |
| ceremony                        | 6   |  | 2  |

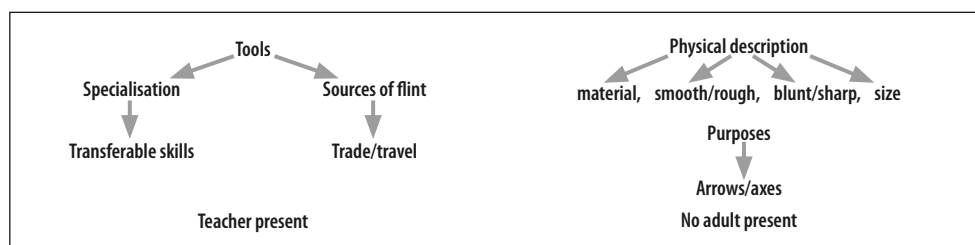


| Taught concepts used in lessons | Number of children in Unit 1 (Stone Ages) using each concept spontaneously. |  |  |
|---------------------------------|---|--|--|
|                                 | Cohort 2<br>Written test  | Cohort 1<br>Discussions with teacher to<br>prompt and clue | Cohort 2<br>Group discussions with no<br>adult present |
| <b>Superordinate</b>            |   |  |  |
| Neolithic                       | 5   |  | 2  |
| Mesolithic                      | 1   |  | 2  |
| Paleolithic                     | 2   |  | 2  |
| power                           | 1   | 2  |  |
| attack                          | 1   | 1  | 2  |
| defend                          | 1   | 1  | 2  |
| communicate                     | 7   |  | 1  |

**Table 4** shows taught concepts used spontaneously by the second cohort in the written test, in discussion groups in Unit 1 with a teacher present and in the second cohort when no adult was present.

### Oral Evidence Tests

Figure 2 shows that the content of the discussion was similar for the led and unled groups. There were differences in the structure of the discussions. In the unled groups there were more interjections, while the led group tended to revolve around a point until it was exhausted, then move on. Secondly although there was genuine discussion in the unled groups it tended to be about physical characteristics (the arrow has ‘wings’ ‘like an aeroplane’ – ‘like a hang glider.’ Although both groups discussed the purposes of the artefacts the unled group did this vividly by telling highly imaginative stories to explain their ideas, which were nevertheless valid. The led groups made more general abstract points while the unled group concentrated more on concrete characteristics. The led groups achieved a more comprehensive discussion but lacked the vitality of the unled groups. All the discussions included differentiating between knowing, guessing and not knowing.



**Figure 2.** Analysis of the transcriptions shows that the content of the led and unled discussions about the Paleolithic hand axes was similar.

## Analysis and Discussion of the Findings: Unit 2 – The Iron Age

### *Comparison of Written Tests and Group Discussions: Celtic Bronze Helmet 150-50 BCE*

The responses to the written tests and group discussions were analysed under three headings, to investigate the ways in which they might reflect Collingwood's three key questions about sources. How was it made? How was it used? What did it mean to the people who made and used it? At the same time written answers were compared with the discussion tapes to see whether discussions reflected those in whole class lessons and whether discussion elicited different kinds of response compared with the structured written test. The findings are shown in Table 5. This also describes how children drew on their information about how metals are smelted, their concept of trade and their visit to the British Museum where they had seen the 'Waterloo Helmet', swords and shields.

| <b>Responses considering how the Waterloo helmet was made</b>  |   |
|--|---|
| <b>Written test</b>  | <b>Discussion tapes</b>   |
| – They could smelt iron and bronze... > They had a furnace for getting iron out of the rock...   | – They made it carefully with the right kind of metals. Certainly they used a mould and little rivets.  |
| – I would like to know if the horns were hollow because that would make them lighter.  | – They could print patterns on it. They had a habit of putting circles in their working.  |
| – They must have had good minds to remember things > They knew how to get to learn (Qu. 1).  | – They also had weapons – shields and swords. At the British Museum I drew a sword with a bronze hilt.  |
| <b>For protection in battle</b>  |   |
| – I guess they wore it to protect their heads > They had fights. They made it > They made weapons > They had wars.                                 | – 'It's got horns. It looks fierce – like an ox that could kill.'<br>– 'Like a Stone Age hunter's deer antlers to hide in the bushes?'<br>– 'The patterns could show what side you were on, so you didn't kill your own men.' |
| – I would like to know how they got the idea of armour and what did they fight about.  | – They fought > I guess they fought for food. If there was a bad winter and cattle died, or to cut another tribes corn if they didn't have enough.  |
| <b>As a ceremonial symbol or a trophy</b>  |   |
| – It might be made for a chief > he would wear it at ceremonies to look special.   | – Maybe the more metal you had it showed how high up you were > They'd start with a beautiful bracelet until they were all covered in metal, as a chief.  |
| – They might have used it at chariot races > They might have used it as a medal. They might have liked beautiful things and had it as an ornament. | – It may have been awarded for extreme bravery in battle.<br>– Or maybe they had races and contests and the armour was awarded for use in battle.   |
| – It might have been for a goddess.  | – If they found other things in the River Thames they may be offerings to a water goddess, to thank her for water to drink.   |

| As a commodity to trade   |  |
|---|--|
| <ul style="list-style-type: none"> <li>– I would like to know where did the archaeologists find it because it would tell me if it was made there or if they traded them.</li> </ul> | <ul style="list-style-type: none"> <li>– Could they have traded it for helmets made in another land – or maybe for metal to make more weapons. Maybe, as we learned in a lessons, Julius Caesar wrote that they used rods of equal weight, or coins to trade.</li> </ul> |
| <ul style="list-style-type: none"> <li>– Was there one people in the place who made them because if they did they would be rich.</li> </ul>   |  |

**Table 5** shows how examples of responses to the bronze helmet reflected Collingwood's 3 questions about sources (How was it made? How was it used? What did it mean to people who made and used it?). It also shows how answers in the group discussions were slightly more imaginative than in the written answers.

### ***Concept Development***

In Unit 2, as in the Unit 1, some children spontaneously used concepts learned through class discussions in their written tests and in the led and unled discussions. It is interesting that they also used concepts remembered from Unit 1 in later units. These children are retaining and using specialized vocabulary. It is also interesting that in Unit 1 and Unit 2 tests abstract and superordinate taught concepts used which were unlikely to be part of children's general vocabulary.

### **Reasons for the Omission of Unit 3 – The Romans**

This unit was taught to both groups 1 and 2 and tested in the same way as the other units. However, results were not analysed due to time considerations, and it seemed that any findings of acceleration would be seen most clearly in Unit 4.

### **Analysis and Discussion of the Findings: Unit 4 – The Saxons**

#### ***Replica of the Sceptre – Sutton Hoo Ship Burial***

##### *The Written Evidence Tests: Suggestions about Beliefs, Social Organization and Life in Societies Different from Our Own*

Analysis of Unit 2 suggested that the ability to consider why people in the past thought and behaved differently from us develops from learning to make a fertility of valid suggestions about how an artefact was made, used, and what it way have meant to people at the time. In exploring children's responses to the Sutton Hoo Scepter children tested it against their knowledge, of Anglo-Saxon life, provided

during the five lessons on the Saxons. These discussions involved understanding of the concepts of kingship, power, law and succession (Appendix 3) and also about animals in Anglo-Saxon art, the uncertainty of Anglo-Saxon life, the need for loyalty and tales of boastful leaders (Beowulf) that they had learned in other lessons in Unit 3. This is illustrated by the following examples.

### 1) *The Deer (Qu. 2)*

The gold sculpture deer may be saying, save our lives, or where we live. Therefore maybe the scepter was saying kill us – or be warned – DIE. Or maybe the deer commemorates the beginning of the earth. That might be why the ruler carries it, to show how the ruler is for God on earth.

In qu. 3 this child wonders what it was used for in ceremonies, so we can find out the reason for the deer on top.

Another child guesses that:

‘It was an ornament. Therefore they made ornaments. And we can guess what sort of symbol the animal was, and therefore the symbol has something to do with animals.’

### 2) *Uncertainty of Life in Saxon Times*

‘I know the scepter is a good luck thing made out of stone. They wanted good luck because they were always fighting.’

### 3) *Kings*

They had kings. Therefore they must have had to be obedient.

They must have had to be loyal. They had a scepter. It must have meant that it was a symbol of power. It must have been hard to be loyal to one person.

‘Why is there no picture of himself on the main part because it would tell us what sort of a king he was. Is he a boastful king?’

### 4) *A Symbol*

It must have been a symbol. Therefore it is precious. It was hard to make. Therefore it took a long time and so it is unique.

### 5) *Power*

Why have it? What is its purpose? Was it to show his power to rule, or to make people think he has the power? Would the king have thought it ruled the people’s minds?

These responses reflect eight-year-olds grappling with important questions. Was the scepter significant for the survival of the community? Did it assume divine power? What did the animal symbol signify? Did it represent good fortune in an uncertain world? Was it a symbol of power requiring loyalty and did it show, or convey ideas of power and in what ways did it influence people’s thinking?

## ***Comparison of Led and Unled Discussion Groups***

In Unit 4 both groups 1 and 2 made considerably more points at levels three/four and seven/eight than in the previous two units and made fewer illogical points. The unled groups, for the first time, made more points at level three/four than the led groups and there continued to be a difference in the way led and unled groups made their points. The led groups still tended to make more general statements, while the unled groups expressed them in the context of stories and images. The following examples illustrate this point.

### ***Unled Group***

Qu. 2. 'Maybe the scepter was locked in a special room and only used on special occasions' 'Perhaps it was displayed in the king's tent?' 'Maybe as a symbol of power over the community?'

### ***Led Group***

Qu. 1. 'It's too good to use in battle. It's a symbol.'  
They discussed 'what the scepter represented' with the following suggestions: king's power, peace, God, succession, welcome, coming of age ceremony, riches, the community and unity.

## **Synopsis of Statistical Analysis**

### ***Improvement in Written Test Responses over Four Units: A Comparison of Groups 1, 2 and C (Control)***

In order to analyse the difference between the groups across units 1 to 4 an analysis of variance was used. This was a three-way repeated measures design (two between, one within). The groups were the first main factor (A). The repeated measures were the artefacts (B) and the three levels were the three units and the three types of question (C).

### *Main Effect A*

This found that there was a significant difference between the groups in responding to the artefact ( $F=12.58$  df 57  $p<.05$ ). The mean for group 1 was 5.7, for group 2 was 6.1. and for group C was 4.4.

### *Main Effect B*

There was a significant difference over units 1, 2 and 4 in responses to the artefact question. The means show an improvement in response levels ( $F=16.3$  df 2  $p<.05$ ). The means for the artefact questions in Unit 1 was 4.9, for Unit 2 it was 5.5 and for Unit 4 it was 6.0.

### *Main Effect C*

There was a significant difference between the levels of response to the three types of question about the artefact ( $F=69.27$  df 2  $p<.05$ ). The means of the scores for question 1 (What do you know for certain?) was 6, for question 2 (What can you 'guess?') was 5.9 and for question 3 (What would you like to know?) it was 4.4.

## ***Removal of Effects of Intellectual Ability***

Although there was no difference between the groups' Non Verbal Reasoning Scores there were variations in the groups' scores in the written evidence tests. Therefore an analysis of variance on the first question of each unit (B was the repeated measure across the three groups). This showed that the differences between the levels of response of groups 1 and 2 and those of group C, which became increasingly marked from units 1-4, was not due to any difference in ability. The analysis of variance showed a strong significant difference ( $F=12.30$  df 2.57). (12.30 would be found in fewer than 1,000 times.) The covariance analysis was even better ( $F=17.06$  and 56 df).

## **Conclusion**

There was a significant difference between the quality of responses in the written tests for groups 1 and 2, which improved over four units and group C. This showed clearly the impact of the teaching strategies used for groups 1 and 2. These were consistent and based on constructivist learning theories. They were based on open-ended, whole class discussions, which encouraged children to use taught concepts

spontaneously and to differentiate between what is known, what valid hypotheses can be made and what cannot be known about sources. Findings showed that eight year old children learned to use these skills independently in their writing and also in discussion groups, whether supported by a teacher or not.

Visits to local sites with evidence of settlement in each period and to museums and cross-curricular links are likely to have motivated groups 1 and 2 and informed their continued interest a twenty-five week project.

## Appendices

### **Appendix 1. Lesson Notes for Unit 1, the Stone Ages: Artefacts.**

Note: vocabulary underlined in lesson plans was taught as concrete concepts. Vocabulary in italics was taught as abstract or superordinate concepts.

| Lesson 1. The Old Stone Age; <u>Neolithic</u> (following visits to Grimes Graves flint mines in Norfolk and Farthing Down Neolithic site, in Surrey).  |  |
|--|--|
| <b>Evidence</b>  | <b>Opportunities for responses at 3 levels</b>   |
| Archaeologist<br><u>Hand axes</u><br><u>Chopping tools</u><br><u>Flake saw</u><br><u>Scraper</u><br><u>Chisel</u><br>Polished (bone)<br>Needles<br>Awls to make holes in skins<br><u>Antlers</u><br><u>Flint</u><br><i>power</i> | <p><b>We know:</b> they became increasingly skillful and in control of their environment, using <u>tools</u> and <u>weapons</u>. They had <u>tools</u> for different purposes. The <u>weapons</u> gave them <i>power</i> to <u>defend</u> and <u>attack</u>. They could <u>hunt</u>.</p> <p><b>We can guess:</b> they could dig up roots, chop up dead animals, scrape their skins, make clothes. They could remember, pass on skills, work together, kill animals, <i>invent</i>, <i>co-operate</i>.</p> <p><b>We do not know:</b> the size of their groups/families, how far they travelled. How long they stayed in one place.</p>  |
| The Middle Stone Age: Mesolithic<br><u>Arrow heads</u><br><u>Co-operate</u>  | <p><b>We know:</b> <u>bows and arrows</u> are more silent and powerful than spears, they could shoot further, arrow heads can be retrieved. They had <i>power</i>.</p> <p><b>We can guess:</b> they had fine muscle <u>control</u>, to make and fire and arrow heads. Good judgment of speed and distance. They could <u>control</u> herds while <u>hunting</u>, protect females with their young. They must have had to <i>cooperate</i>.</p>   |
| The New Stone Age: Paleolithic<br>Stone hoe, sickle, grinding mill<br>axes   | <p><b>We know:</b> they grew <u>crops</u>, they lived in one place.</p> <p><b>We can guess:</b> how they learned to grow seeds (observe, experiment, select). They grew <u>corn</u>. They ground the <u>seeds</u>, they lived in houses, they lived in a <i>community</i>. They could, <i>co-operate</i>, make <u>rules</u>. They lived in permanent places.</p> <p><b>We know:</b> the axes were used to clear forest.</p> <p><b>We can guess:</b> more tools were needed, they were made in special 'factories', they were <i>traded</i> in areas where there was no <u>flint</u>.</p> <p><b>We do not know:</b> what they were <i>traded</i> for, how trade was <i>organized</i>.</p> |

## Appendix 2. Lesson Notes for Unit 2, the Iron/Bronze Age: Artefacts.

| Lesson after visits to the British Museum ( <a href="https://www.britishmuseum.org">https://www.britishmuseum.org</a> ) and Butser Ancient Farm, Hampshire ( <a href="http://www.butserancientfarm.co.uk">www.butserancientfarm.co.uk</a> ) and practical follow-up activities. |  |
|---|--|
| Evidence  | Opportunities for responses at 3 levels<br>Selected concepts are underlined  |
| Seen on visit to British Museum and discussed further in class:<br><u>horse brasses</u> ,<br><u>coins with images of horses</u> ,<br><u>model chariot</u>   | <p><b>We know:</b> they bred <u>horses</u>, trained them and used them for draught. They had <u>brass</u>. They could <u>smelt</u> copper and tin to make bronze. They used money.</p> <p><b>We can guess:</b> they rode horses. The horse was important to them. They had <u>transport</u>. They used money to <u>trade</u>.</p>  |
| This lesson also drew on practical activities related to making pottery in a pottery clamp, and making labelled models of a bowl furnace and a pipe furnace for smelting metal  | <p><b>We know:</b> how they made pottery.</p> <p><b>We know:</b> how to they made <u>charcoal</u>.</p> <p><b>We can guess:</b> that they <u>invented</u> this through making pottery.</p> <p><b>We know:</b> how they <u>smelted</u> metal to make <u>bronze</u>.</p>  |
| Seen on visit to Butser Ancient Village and discussed in class<br>spindle, loom weights<br><u>Grain store</u><br>Oven<br>Quern stone  | <p><b>We know:</b> they lived in a <u>community</u>.</p> <p><b>We do not know:</b> how it was <u>organized</u>; was there an owner? Were there <u>specialised</u> jobs?</p> <p><b>We know:</b> they were getting <u>power</u> over nature.</p> <p><b>We know:</b> how they spun wool.</p> <p><b>We know:</b> how they wove cloth.</p> <p><b>We know:</b> they made the roof with <u>thatch</u> with straw and how they made <u>wattle</u> and daub walls.</p> <p><b>We know:</b> they could build a house.</p> <p><b>We can guess:</b> it was warm and dry inside.</p> <p><b>We can guess:</b> they dyed cloth and wore cloth.</p> <p><b>We know:</b> how they stored the <u>grain</u>.</p> <p><b>We know:</b> how they made <u>flour</u>.</p> <p><b>We can guess:</b> that they grew <u>corn</u>.</p> <p><b>We can guess:</b> they cut it with <u>sickles</u>.</p> <p><b>We can guess:</b> that they farmed using a <u>plough</u> and oxen.</p> <p><b>We can guess:</b> they had <u>domesticated</u> animals, since they lived in one place.</p> <p><b>We do not know:</b> what other <u>crops</u> they might have grown whether they had <u>vegetables</u>.</p> <p><b>We know:</b> they baked.</p> <p><b>We can guess:</b> what they cooked.</p> |



### Appendix 3. Lesson Notes for Unit 4, the Anglo Saxons.

| This lesson relates to kingship, laws and social organisation.  |   |
|---|---|
| Evidence  | Opportunities for interpretation  |
| <p>1. Kingship</p> <p>(i) Map showing seven <i>kingdoms</i> in 700 A.D.</p> <p>(ii) Bede and the Anglo-Saxon Chronicle suggest that a <u>king</u> chose his successor – not necessarily the eldest son and that the king promised to serve God in a <i>crowning ceremony</i>. The crown was a <i>symbol</i> of kingship.</p> <p>iii) The king's council made <i>laws</i> (e.g. laws of Ine of Wessex, Aethelbert of Kent, Alfred of Wessex (examples given)).</p> | <p><b>We know:</b> that there were kingdoms ruled by kings. A king's successor was made <u>king</u> in a <i>crowning ceremony</i>.</p> <p><b>We know:</b> that there were <u>laws</u>, that people had to obey.</p> <p><b>We know:</b> there were <u>laws</u> about land, homes, cattle, crops.</p> <p><b>We can guess:</b> the <u>laws</u> were different in different kingdoms and at different times.</p> <p><b>We can guess:</b> that they were ruled by strong kings and were fairly peaceful.</p> <p><b>We can guess:</b> there were also <u>wars</u> where kings had to defend themselves against enemies when they were <u>attacked</u> to protect their land and people.</p> |

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## MEANINGS OF ARCHAEOLOGICAL ARTEFACTS FOR HISTORY EDUCATION

### Abstract

Both archaeology and history share a core goal of understanding past human life grounded on evidence. In the line of research on history cognition, an empirical study was carried out to highlight some possibilities of relating archaeological and historical thinking in education. The research questions intended to find some answers, through a mainly qualitative data analysis, on (1) students' ideas about the human past upon interpreting archaeological objects and, (2) possible links between these ideas and archaeologist's work. To this aim, one year 5 and one year 7 classes attending a school in Northern Portugal solved a written task where they should establish inferences on a set of Roman artefacts and their human past context. Students gave answers and questions not only about material elements of the objects, but also about human life connected to those objects. Among several results, data suggested several conceptual levels of sophistication ranging from a timeless picture to ideas of historical empathy.

**KEY WORDS:** ARCHAEOLOGY IN HISTORY EDUCATION, ARCHAEOLOGY AND HISTORY, STUDENTS' IDEAS ON ARCHAEOLOGICAL EVIDENCE, ARCHAEOLOGICAL EVIDENCE, HISTORICAL EVIDENCE, STUDENTS' IDEAS, ARCHAEOLOGICAL AND HISTORICAL THINKING, CONCEPTIONS ON TIME AND HUMAN LIFE.

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## MEANINGS OF ARCHAEOLOGICAL ARTEFACTS FOR HISTORY EDUCATION

### Material Culture: From Past Remains to Historical Evidence

When the intrinsic practical use of an object disappears, it can be forgotten, destroyed, or it might gain other meanings. In the latter case, it can assume a somewhat rational meaning by establishing a link between us and other times. A sense of cultural heritage emerges when something evokes the human life in the past, and relics are interpreted as heritage symbols. Within this view, if remains are tied to issues of identity (what else this might mean) at least two significant postures emerge, one looking respectfully at heritage memories as fixed signs of particular identities (in terms of 'our' familiar, local, national, cultural contexts), another entailing a more analytic, second order meaning, considering the objects capable to be questioned in order to provide some clues about the material and mental life of the people who made and/or used them. Thus, in presence of a given trace, an empathetic attitude (different from presentism) can shape the search for what humans made, why, when, how they made or used it, and what impact it brought to collective life. Here we may talk of a sense of archaeological thinking, relating it to history and (other) social sciences. Archaeology and history in particular both shape the teaching and learning of history in school as they hold the common core goal of understanding the past upon evidence grounds. And, in this search through interrogating sources, it is crucial to distinguish between relics and reports, or intentional and unintentional evidence, as Lee (2005, p. 58) stated:

*“A record is a source that intends to tell us, or someone else, something about an event, process, or state of affairs. Relics are sources that were not intended to tell us what happened [...]. Coins, tools, and acts of Congress do not report the past to us, and so cannot be more or less ‘reliable’. They are the traces of human activities, and we can use them to draw inferences about the past.”*

This distinction between relics and reports in the sense of unintentional and intentional sources to understand the past may help the students to gradually grasp some specific procedures for questioning sources in archaeology and in history, the former relying mainly on relics, the latter relying mainly on (written) records. This obviously does not imply a denial of other contributed sciences for better understanding the past.

## Archaeology and History Education

In the field of research on history education, the attention to exploring students' ideas in archaeology began at least in the 1960s-1970s, when concerns about the cognitive development by age under the Piagetian influence were quite popular. By then, Peel already asserted that "*we need to know how the ideas are formed, changed, extended and used*" in history (1967, p. 182), a fresh educational presupposition that sounds much more familiar nowadays. Thus, giving room to search for empirical grounds of students' historical cognition Peel and his team carried out several studies about explanatory thinking of students aged 10 to 17 (1967, 1971). These studies included archaeological sources through site visits (Stonehenge and others) or their visual representations, to be interpreted by problem solving questions such as "*how do you think the town would come to be buried?*" (1967, p. 175). The analysis of data in those studies was still guided by a generic approach of conceptual progression, from concrete to abstract or deductive reasoning by age stages. In this wavelength, in 1967 Peel constructed a conceptual model with three levels of progression (restricted, circumstantial, imaginative historical thinking), and in 1971 he refined that model by considering a four level categorisation in which students' thinking appeared, (1) to be ahistorical and perceptually dominated, (2) to include some sense of time although still largely perceptual and nonrealistic, (3) to point to a single cause with no attention to other factors, (4) to reveal the emergence of historical imagination in the sense of connecting causes and weighing their relative explanatory power. Following the perspective of cognitive development by age groups, Peel suggested that the younger children in primary school revealed poor reflection on information, the 12-14 year olders focused on concrete, factorial evidence showing little imagination, and the 14-15 young people could coordinate several factors and begin to imagine different possible explanatory answers. Two main aspects of this investigative approach led to overt criticism from those engaged in stressing the specific nature of history and the possibilities of historical learning by children: one dealt with the focus on generic cognitive elements (concrete versus abstract thinking) to establish a close relationship between conceptual development and age; another was the implicit devaluing of a possible grasping of history at early ages. Those critics argued for history as a specific form of knowledge grounded on evidence, which implies a highly inductive process; therefore, in history and archaeology students do not just have to deal with an abstract, strange past; they can construct meanings of human life from an early age, by progressively inferring upon the sources available in the present. In fact, Peel partly converged with his critics about epistemological assumptions; he asserted that in history students do not simply collect facts from the old past, they can understand there are disciplines highly inductive when drawing explanatory hypotheses. Peels commitment to enhance the formation of imaginative thinking grounded on evidence entail that conclusions in archaeology and history education are inference-based, and this remains valuable today.

Since the 1990s, the work of Hilary Cooper has provided relevant clues on the possibilities of imaginative thinking in children when reasoning in problem solving tasks. Cooper and her team have investigated the meanings attributed by students to archaeological sites, material objects and their visual representations as evidence of past life. This is done in a process where children were encouraged “*to think at the highest possible level: to support their statements with further arguments using therefore, and to differentiate between knowing, guessing and not knowing*” (Cooper, 2011, p. 332). It is worth to emphasise some key-points of this investigative focus by examining Cooper and West study reported in 2009. The researchers explored how students would make sense of a castle site, taking into account two crucial presuppositions: students’ previous knowledge and problem solving historical tasks grounded on evidence. After launching the concept of enquiry, the authors challenged the students to put a set of questions about the castle; those questions appeared like ‘why was the castle built, why was it destroyed’. Students were then oriented to make questions such as ‘what I would like to know?’ in order to look for answers that could be supported by site evidence or not (Cooper & West, 2009, p. 18). In this approach, the emphasis on epistemological assumptions in two entangled perspectives, that of archaeological/historical enquiry and that of situated learning, is clear.

Relevant works like those mentioned above have inspired some studies on students’ archeological thinking in the field of history education in several countries, including in Portuguese speaking contexts. In Portugal, Ribeiro (2004) carried out a study on archaeological evidence with history and geography students attending year 5 class. He designed a written task to be applied on two content units (Neolithic and Romans in the Iberian Peninsula). After observing a set of related archaeological artefacts, students should infer some features about the objects and the related way of life; they also should question what else would they like to know. The students responded quite well to direct questions on the specific objects, but they gave restrict answers to those questions demanding a more encompassing and sophisticated thinking. They performed better in the second task implementation (related to Romans). The degree of familiarity of objects and task implementation might be relevant variables for this upgrade from the first to the second data collection. In another approach, focused on heritage and history education, Pinto (2016) has explored how students make sense of material evidence. Through direct observation and challenging questioning, she has organised several tours to old streets, museums, buildings and historic sites to improve students’ interpretations of heritage evidence in a perspective of open identities.

In Brazil, the studies of Cainelli (2006, 2011) or Schmidt and Garcia (2010) have also given relevant clues to understand how students can infer about a given past when grounded on material evidence. For example, in Cainelli study with primary school students aged 6-8 (2006), children should construct time concepts based on objects. Firstly, she exhibited a making pasta machine and questioned students

about the object; then, she asked about “*who, why and when*” was the machine used. A common response to the last question was “*women did, because women used to do housework*”. As Cainelly (2006, p. 65) noted, by “*exploring personal and non personal memories in multiple times – past, present and future*” children can progress about time and human related concepts, while conceiving “*temporal dimensions of a personal and non personal reality*” through a selection of their memories.

Next section describes a recent investigative experience we carried out in line with research discussed above.

## **Students’ Thinking Grounded on Archaeological Evidence**

### ***Method***

The authors carried out a study with two history intact classes to explore student thinking on archaeological objects upon a visit to a Roman site. It is a descriptive study, assuming a mainly qualitative approach with inductive analysis of data inspired by Grounded Theory procedures (Strauss & Corbin, 2008).

The participant students attended a school located in Paredes, a town at northern Portugal. Students live in villages close to that small town, and most of their family members work in textile and woodwork industry, and construction. The students use the school bus as transportation and stayed at school from 8 am until 5 pm. Thus, the school environment plays an important role in the life of the student population; there, they have lessons and lunch, socialise with peers, play sports, go to the library and the multimedia room. The school staff is committed to develop a project following principles of significant learning and individualised teaching and so, accordingly, they look forward to promoting diverse and challenging activities. Classes are heterogeneous in terms of academic achievement, usually integrating some children or young people with mild learning difficulties or problematic social contexts; for those reasons, each class has a quite small number of students.

The study was guided by the following research questions:

- (1) what ideas do students build about the human past when observing and interpreting a set of archaeological objects?;
- (2) can we consider those ideas with some meaning related to archaeological work?

The participants (N= 35) attended two classes (N=17 in year 5, N=18 in year 7). In Year 5 (Y5), students (12 girls and 5 boys) were aged 10-12, in year 7 (Y7) students (11 girls and 7 boys) were aged 12. In both years of schooling the Portuguese students study some history of Ancient Rome; in Y5 the approach focuses on Roman wide

influence on Iberian Peninsula, and in Y7 the content unit focuses on the Roman Empire and its relevance to the world. Both classes are taught by the co-author history teacher. Thus, integrated in this process of teaching and learning, year 5 class visited the 'Monte Mozinho castro', a fortified protohistoric site later occupied by Romans; there, it is possible to infer two different cultures upon analysing some elements of this place, e.g. their circular and rectangular buildings; Y7 class visited a Roman gold mine, which can inspire fruitful thoughts about some characteristics of the way of life during the Roman empire. A week after each site visit, at the beginning of the lesson in each class the teacher displayed four Roman artefacts (dish, tri-lobed vase, cup, lucerne) reminding the students that they were Roman objects that could be related to the site they visited. Then the teacher challenged the students to think and write about them. He announced that their work would be not only discussed in classroom but it would be presented outside and appreciated (not assessed!) as examples of students thinking in history. For that, he gave a piece of paper with a set of four questions to each participant:

1. What archaeological objects do you observe? (Q1)
2. What could the Romans do with these objects? (Q2)
3. If you found these objects in an archaeological dig, what could you think about Roman daily life? (Q3)
4. What else would you like to know about these objects? (Q4)

This task design was the same of that applied by Ribeiro (2004) in a different research context (two sets of objects for two content units in an year 5 class). The first two questions intended to promote a scaffolded thinking. According to that, when starting the individual task the teacher answered questions about object designations, namely about lucerne. This intentionally favoured answers to Questions 1 and 2. Presupposing that answers to Questions 3 and 4 could stimulate historical/archaeological reasoning, they constituted the focus of systematic data analysis. The written student task took about 20 minutes.

### ***Data Analysis***

Given the presuppositions of the four items presented to the students, data analysis focused more systematically on the answers given to the last two questions, which were presumably more challenging from a cognitive perspective. In accordance to this, the answers to Questions 1 and 2 were considered as a useful context to better understand students' ideas in responding Questions 3 and 4. Furthermore, in order to find coherent answers to the conceptual research questions, the inductive data analysis followed a three-sholded procedure, that is, an open, selective and axial coding (Corbin & Strauss, 2008). This allowed tracing two dimensions for answering each research question (RQ).



It became clear from the initial open coding of data that answering RQ1 (what ideas do students build about the human past when observing and interpreting a set of archaeological objects?) required an analysis in two dimensions:

1. Questioning objects
2. Inferences about the past

To answering RQ2 (can we consider those ideas with some meaning related to archaeological work?) two dimensions of thinking were logically considered too:

1. Questioning objects
2. Ideas about archaeological work

Throughout the threshold coding process it also became clear that data analysis on Dimension 1 for RQ1 and RQ2 converged in answering to archaeological and historical concerns about questioning objects. Therefore, an integrated data analysis considering those two angles was carried out and discussed. Data on Dimension 2 in RQ2 did not provide enough clues for a consistent categorisation oriented toward ideas on archaeologist's work. So, they were just briefly commented.

Dimension 1 encompassed specific notions around the artefacts displayed by students in their comments when they went beyond a generic allusion to 'the objects':

1. Function
2. Invention
3. Manufacture
4. Raw material
5. Time context
6. Space context

The last item (Q4) allowed students to launch a type of questions related to Dimension 2, touching genuine concerns linked to the archeological work to 'discover the past'. However, only a few students manifested an implicit interest in what can be seen as related to the fieldwork dimension.

The inferences about the past involved ideas about the Roman way of life that students inferred upon object observation. The students' comments and questions expressed in answering especially to Questions 3 and 4 suggested several levels of historical thought. Accordingly, the analytical procedures gave rise to a conceptual model entailing five categories having in mind epistemological concerns. In fact, when facing the objects and thinking about their hypothetical meanings, the students pictured the past at various degrees of sophistication:

1. *Timeless picture*. Students gave either a generic picture of human life or a syncretic view of mixed times. A few even did not respond to specific questions about the past.

2. *Presentism*. Students thought of Roman way of life (in the Peninsula) in a presentist perspective by interpreting ancient times in the light of present experience.
3. *Restrict empathy*. Students explicitly manifested understanding the existence of a given past and of the present they know, but when comparing those temporal segments they only focused on similarities or differences between present and past.
4. *Signs of empathy*. Students manifested to understand those two temporal segments by showing interest and curiosity for the people living in a given past and by recognising specific similarities and distinctions between elements of life now and then.
5. *Empathy*. Students manifested to understand past and present temporal segments in terms of continuity and change, and recognised that present objects are heirs of that past, they remind Roman times in some way. This conceptual pattern is seen as closer to a genuine historical empathy.

A discussion of the qualitative analysis of data by year of schooling follows, taking into account the conceptual dimensions already mentioned (objects, archaeological work and inferences about the past).

## **Year 5 Students' Ideas in History and Archaeology**

All students answered, at least, the first two questions. In Q1, most students assigned acceptable names to the four objects, such as dish or tray, vase, cup, lamp; a few gave more technical names such as amphora for the trilobed vase, oil lamp / wick for the lucerne; however, a few others attributed deviant names such as mirror for the lamp. After designating the objects, it was quite easy to answer Q2 by assigning a specific function to each one, even if it was an alternative one or if a few cautious students expressed uncertainty about certain names to give. This first source interpretation in imagining object functions permitted to better understand later responses on Roman artefacts and way of life, especially when they situated those ancient peoples in a context quite similar to their present time, e.g. 'the dish was for them to eat soup'. It is worth to say that responses to this apparently so simple task implicitly suggested that, at least, all students could relate the objects with human society.

### ***Thinking about Objects and Archaeological Work***

We might consider that students are tacitly on the route of archaeologists' interests when they pay special attention to artefacts of a past gone and ask questions about them. In fact, in this Y5 class, after assigning functions to objects (Q2) mainly based on prior knowledge, the participants tended to give their comments about objects in answering Q3, and many of them asked questions in various angles about them

in Q4. Those comments and questions focused, namely, on functions, raw material, manufacturing, time and space contexts of the objects.

### *Objects*

In fact, beyond students' interest in specific elements of the objects related to their meaning for human life, the participants in Y5 produced inferences about Roman life by looking at some characteristics, functions and other attributes of the artefacts displayed – although some of them stated in a superficial way that Romans 'had objects similar to ours'. When the students focused on the functional side of the objects, some asked perhaps in a tautological form ('what were they used for?') once they had already assigned a certain function to each object (Q2), but others implicitly considered realistic alternative functions in past context, as the boy who wondered 'what else the objects served for?', or the girl who asked 'in what ways were they used?'

The raw material was another focus of attention, giving room to concrete observations and questions like those of the girl who stated 'they worked with clay', and also expressing some puzzlement when asking 'did they also make clay pots?'

The making of those objects was another focus of attention leading to put realistic questions such as 'who made them?', 'how did they make them?', thus implying to consider relationships between those objects and human life.

Finally, some students preferred to consider issues of time or space. They asked questions concerning time in two different angles, that is, one oriented toward the objects' age, like 'how old are they?', another towards the conservation degree of the objects, like 'were they still intact when they were found?'. A few students presented some comments or questions related to the spatial context of the objects, one who imagined the objects found 'in a kitchen', one who asked 'where were they found?', or another one who gave a plausible inference, 'the Romans lived in that place' (the site previously visited).

### *Archaeological Work*

The last item (Q4) allowed some students to manifest, albeit implicitly, their interest in archaeological work. Two types of students' questions appeared about the state of objects when they were found or discovered:

1. 'Were these objects intact when they were found?' (two girls and one boy);
2. 'How were they discovered?' (girl)

This rare questioning might still seem too naive, but it entails an emergent curiosity among students over archaeological work.

### ***Inferences about the Past***

A *timeless picture* (level 1), here considered as representing the most restrict ideas concerning archaeological and historical thinking, can be exemplified by the responses of a girl who asserted that ‘the Romans had a simple and normal life’, the ‘bowl, jar, cup, lamp’ served, respectively, ‘for eating, keeping liquids, drinking, lighting the houses’. These ideas suggest a generic view of human life, which covers various times and cultures rather than focus on ancient Rome in particular. In other examples of the same conceptual level, responses either (a) responded only about the name and function of each object (in Q1 and Q2), or (b) appeared to reveal tautological ideas in Q3 and Q4. As an example of the former, a boy identified the dish as ‘a bowl to eat breakfast’, the vase as ‘a pitcher to drink’, the cup as ‘a small vase to put flowers’ and the lamp as ‘a mirror for people to look at themselves’; an example of the latter is the girl’s writing ‘I think that they wanted those objects’, and ‘what did they do with them?’ after having asserted that the dish served ‘to put food’, the vase ‘to bring water’, the cup ‘to drink’, the lamp ‘to illuminate’. The responses of another girl might exemplify a somewhat different pattern but also in a timeless picture when, after recognising the four objects as serving ‘to put food, to put liquids, to drink, to illuminate’, she wrote, ‘they knew how to set up a table, they discovered the wick, domesticated animals, they made bread and still hunted animals’; she seems to construct her conclusions in a syncretic mix of pasts either from inferences upon those objects and from her prior knowledge.

As an example of *presentism* (level 2), a girl imagined that those objects were found ‘in the kitchen where they used to have lunch and dinner’ and the dish ‘served for eating the soup’. This response pictures a scenery of the past as an image of the present, a real historical and archaeological thinking is not apparent. In spite of that, it might be genuinely directed toward the people who used those objects, and in that sense Lee (2005) noted that such type of thinking is near to a first phase of understanding others in their own times.

At a relatively more elaborate level of thinking (level 3) some students suggest a *restrict empathy* toward those living in the past; they begin to make some comparisons between the Roman objects and those of today, and this suggests they are aware of ways of life situated in different times. However, when establishing those comparisons they just focused on similarities between the two temporal segments, from present to the past. The boy who stated ‘the Romans were fantastic builders, they had objects similar to ours’, and would like to know ‘what else were these objects

for?’ suggests a posture of intellectual respect and curiosity for an ancient people who used objects like those today.

At a yet more elaborate level of ideas (level 4) students in year 5 gave more explicit *signs of empathy* in their responses when expressed some awareness about similarities and distinct features between past and present ways of life. A girl exemplifies this view when she concluded that Romans ‘had some stuff like today but they were made with other materials’, also would like to know ‘what was fundamental to them’ and ‘what else were these objects for’ beyond the obvious functions she had mentioned before. Although these thoughts are just emergent ideas of empathy scarcely contextualised, they can provide a promising starting point to enhance a comprehensive learning about the past.

## **Year 7 Students’ Ideas in History and Archaeology**

### ***Thinking about Objects and Archaeological Work***

The prior visit to a Roman gold mine provoked in some students certain perplexity when thinking about objects of Roman daily life.

#### *Objects*

Year 7 students tended to look at the objects displayed as ancient artefacts. Such as in Y5 class, after having identified the objects and assigned certain functions to them, Y7 students produced some comments and questions about various angles of the artefacts. The answers and questions they presented were oriented toward function, manufacturing, raw materials, time and space like their peers in Y5, but they also focused on one more angle, that of creation or invention of those objects. Interests in issues related to archaeological work emerged in a very few cases, within the scope of questioning what else they would want to know.

The students who focused on objects’ functions went beyond the tautological question ‘what were they used for?’; some asked ‘in what ways were they used?’, and a girl wanted further details when asking ‘did they used these objects daily, and what else were they for?’.

Another focus of students’ questions was how the objects were made, and this was put in a more elaborate fashion than in Y5: a boy asked ‘how long did it take to make those objects?’, and a girl expressed the wish to know more about ‘how those objects with such details were made’.

The invention of those objects was also highlighted by some students, although this was attributed with a relative inadequacy to the Romans. One girl said that ‘they created those objects’, a boy hypothesised ‘maybe Romans invented them’, and a girl manifested her puzzlement by wondering ‘how could they create those objects in the mine?’

The raw material received only a few mentions. As Y7 students related the objects with their visit to the Roman gold mine, a few were puzzled about ‘what material were the objects made of?’, and only one girl mentioned the clay.

Such as in year 5, only a few students considered questions of time or space related to the objects. Time issues put by the students dealt with duration, ‘the objects should be very strong as they lasted until today’, as one girl asserted. As to spatial issues put by the students, they must be considered, again, in the light of the context of the visit to the gold mine since a boy wondered ‘how did they go to that place?’, and a girl wanted to know ‘in what exact location were they found?’

### *Archaeological Work*

Only a few students spontaneously gave attention to issues that are implicitly related to archaeologists craft. This emerged in questions like ‘when and where were objects found?’ (boy and girl), and ‘how were they found, in what exact location were they found?’ (girl). This last thought implies curiosity directed to the process of archaeological discovery.

### ***Inferences about the Past***

Year 7 students’ data analysis followed the same methodological procedures as used in Y5. Together, they permitted to generate the conceptual model with five levels of progression in archaeological/historical thinking. It must be noted that data from this Y7 class provided the elements to construct level 5 as the most elaborate ideas appearing in this empirical study.

In a generic, *timeless picture* about human condition (level 1), a few students gave answers like the girl who concluded that the Romans created those objects (‘dish, pitcher, jar, candle base’) ‘to make their life easier’, i.e., to satisfy the practical needs common to every human; however, it must be said that this student (as some others) was curious about how these objects were made, what materials they were made with, and how the ‘Romans thought of making them’ (a naive, generic idea although holding a human sense). In a more implicit form, a boy shared the same concern with human life when asking how the objects were used, but throughout his

responses he mainly kept his focus on objects, asking ‘how could they still be there, how were they used, how did they go to that place?’

In a *presentism* mode (level 2), a girl upon identifying the ‘dish, jar, vase, lamp’ and respective functions (‘eating, keeping and drinking water, lightening’) concluded that Romans ‘had a life similar to ours’ and wanted to know ‘how objects were made’, in a more expressive mode, another girl imagined Roman life in the light of everyday values, ‘they were not very poor as many had objects to use for eating and drinking’, but also revealed curiosity in ‘knowing more about those objects and how they made them with all those details’.

Other students focused on the ancient Romans considering aspects of human life in those times but with a *restrict empathy*, as they also revealed generic or inconsistent inferences: they pictured that past either with some contours of today, or thought of it as being totally different (level 3). This seems to be the case of the generic response of a girl who looked at Roman life as being ‘quite different from today’, but also she specifically asked how Romans ‘used those objects’ (she had previously assigned familiar functions to the objects). Another girl gave also restrict signs of empathy by inferring with some implausibility that ‘their life was working and trying to make inventions, they made everything with clay’, while also claiming that the Romans ‘were modern in their own epoch’.

The students expressed more overt *signs of empathy* (level 4) when they focused on life in ancient times with a relative consistency, also considering acceptable similarities and differences between past life and nowadays. This seems to be the case of the girl who asserted, ‘we use equal or similar objects today, now we assign them several other functions’, conceiving similarities and differences between life in past and present times. The boy who pictured that life (related to the mine) with ‘a lot of slaves, a lot of work and darkness’ suggested to understand concomitant social differences in that specific society. Implicitly, he was establishing ideas of change from past to present, on the verge to expressing a genuine historical empathy.

The students who manifested emergent but genuine *historical empathy* established relationships of continuity and change from past to present life (level 5). This can be exemplified by the responses of a girl who summarised Roman life as ‘very different from ours’, ‘Romans were a very smart people, they had objects which are still in use today’. In another way, a boy stressed that that ‘they had stuff similar to ours, maybe they invented them’. These students conceived past life features by tracing some consequences for the present, thus envisaging a continuity and change process rather doing an inverse exercise of comparing the past from present days.

## A Quantitative Synthesis of Results

In order to get a comprehensive picture of the results, Tables 1 and 2 present a brief quantitative approach of results concerning the two dimensions of analysis by school year.

| FEATURES |               | SCHOOL YEAR |    |    |
|----------|---------------|-------------|----|----|
|          |               | 5           | 7  | N  |
| 1        | Manufacture   | 3           | 8  | 11 |
| 2        | Function      | 3           | 7  | 10 |
| 3        | Raw material  | 3           | 3  | 6  |
| 4        | Invention     | –           | 5  | 5  |
| 5        | Time context  | 3           | 2  | 5  |
| 6        | Space context | 2           | 3  | 5  |
|          |               | 14          | 28 | 42 |

**Table 1.** Objects: Frequency distribution of references by school year (items 3-4).

It must be noted that:

1. Each student could refer more than one feature, as it is obvious in the analysis.
2. References include students' claims given in Q3 and questioning and doubts posed in Q4.
3. All students answered on objects' functions in Q2, but this was not quantified.
4. As references include assertions and open questions put by students, many of them do not mean that they express objective statements rather they just indicate the attention students gave to each feature.

Concerning the results displayed in Table 1, we can conclude that:

1. Globally, students in Y7 produced more references than those in Y5 in respect to manufacture, function, invention and space context of the objects.
2. The invention of objects received attention only among Y7 students.
3. As for the raw material used in objects' production, the number of references was equal in both years of schooling.
4. Time issues got more attention from students in Y5 than from those in Y7.



| CONCEPTUAL LEVEL |                  | SCHOOL YEAR |    |                               |
|------------------|------------------|-------------|----|-------------------------------|
|                  |                  | 5           | 7  | N (%)<br>*Rounded percentages |
| 1                | Timeless picture | 9           | 4  | 13 (37,2)                     |
| 2                | Presentism       | 2           | 6  | 8 (22,9)                      |
| 3                | Restrict empathy | 4           | 2  | 6 (17,1)                      |
| 4                | Signs of empathy | 2           | 4  | 6 (17,1)                      |
| 5                | Empathy          | –           | 2  | 2 (5,7)                       |
|                  |                  | 17          | 18 | 35 (100)                      |

**Table 2.** Past human life: Conceptual levels by school year.

Notes:

1. Table 2 focus on the analysis of students' ideas suggested by their responses on Q3 and Q4.
2. All students in Y7 answered Q3 and/or Q4; two students in Y5 did not respond those items.

Concerning the results displayed in Table 2, we can conclude that, globally, students in Y7 showed a tendency to produce more elaborate thoughts about past human life than those in Y5:

1. Year 7 class suggested less ahistorical (timeless) ideas and more signs of (historical) empathy than Y5.
2. Ideas in the most elaborate level, (historical) empathy, emerged only in Y7.
3. Concerning intermediate levels of thinking, Y5 class showed less presentism (level 2), and more ideas of a restrict empathy (level 3) than Y7.

The following, last section, includes a brief discussion of a cross quantitative and qualitative cross-analysis.

## Conclusions

The empirical work described here intended to highlight some possibilities of relating archaeology and history education. Usually school curricula include history as a subject matter (either as an autonomous or integrated discipline) over several years, but not archaeology. However, archaeology concerns and results are there in an implicit form. The contact with material remains of the past can conceptually turn to be artefacts, buildings and sites opening us access to understanding a fascinating,

strange but also familiar world (a complex wonderland but indeed a real world). This study shares those assumptions of educational research to promote students' archaeological and historical thinking to a better understanding of human life.

In this wavelength, the methodological option was to carry out an in-depth analysis of data provided by students. We did not intend to look for their perceptions, opinions or discourses; we rather tried to 'enter their thoughts' by interpreting those perceptions, opinions and discourses through the lens of historical and archaeological thinking: 'what do students think about the past upon observing a particular set of relics (and related sites)?' From the extensive field of educational research on cognition, we know that children, young people and adults construct their ideas grounded on several experiences in and out school, and that they can either remain tacit or become conscious. Due to this well-know complexity, the task of understanding the others' ideas is very sensible, time consuming and risky, mainly if it deals with thinking in areas of divergent knowledge like archaeology and history. Thus, this study implies that its findings are not free of failures, above all because it relies on a single written task. Interviewing and peer discussion happened in the classroom after this implementation for practical educational concerns; a next investigative step will be to carry out follow-up interviews in a controlled and systematic fashion. Therefore, the findings are quite provisional and, as it is in their nature, they cannot be generalised; they just represent a systematic interpretation of data provided by two classes. Those findings were obtained in the light of two initial research questions (RQ). We now summarise the corresponding answers.

All participants responded, at least, two or three questions, and most of them responded to the four items. Broadly speaking, students in year 7 appeared to hold more sophisticated ideas than in year 5. This might seem a trivial conclusion, but that is useful and inspiring to educational professionals. Beyond the school year, another variable – the particular context of each site visit – should be stressed in order to better understand the results. Year 5 class visited a settlement place where students could imagine the usage of the objects displayed; year 7 visited a gold mine with nothing around. This could have facilitated the task for year 5 and caused some trouble for year 7.

On questioning objects (Dimension 1, RQ1, RQ2):

1. All participants identified the objects of Roman daily life, and assigned functions to them. Most artefacts appeared familiar in shape and function to the students; such familiarity could facilitate their answers but at the same time could disturb the interpretation of temporal differences between Roman times and today.
2. Issues of time received more attention in year 5. Although this was not relevant in frequency of answers, it might mean that in year 5 a few students were concerned about time issues while probably year 7 class had a better sense of (historical) time.

3. Issues about space got more attention in year 7 than in year 5, perhaps due to the context of the mine gold visit. In fact, several students in year 7 were puzzled about location of objects. However, the year 5 class scarcely related their ideas with the settlement they visited.

On inferring about the past (Dimension 2, RQ1):

1. Many participants showed some signs of thinking about the people who made and used the objects, either in tacit or conscious approaches. Even when students (N=2, in year 5) just assigned the function 'to eat soup' to the dish or identified the lamp as if it was a mirror, their notions tacitly entailed a human sense.
2. As it is expected, the ideas appeared at diverse levels of sophistication if we look at genuine notions implying a focus on human life and time, as Marc Bloch reminds us. Data analysis led to generate five conceptual levels (timeless picture, presentism, restrict empathy, signs of empathy, empathy). This categorisation received inspiration of the Asby and Lee model (1984).
3. If we look at specific results by school year, we see that year 7 showed more elaborate ideas than year 5; in the whole set, empathy thoughts were more frequent in year 7 than in year 5, and a timeless or incoherent picture was mainly observed in year 5. Nonetheless, year 7 showed more frequent ideas of presentism than year 5, while the latter showed more frequently ideas of restrict empathy than the former.
4. Do timeless conceptions evolve toward presentism throughout years of schooling and, seemingly, do restrict empathy evolve toward more overt signs of empathy? This study can not respond to this hypothesis. Anyway, most of answers fell into the range from presentism to empathy, meaning that historical sense was being constructed, after all.

On ideas about archaeological work (Dimension 2, RQ2):

1. Students raised a total of 5 questions.
2. Only one of them was directly related to how objects were discovered.
3. Such scarcity deserves attention in the field of history education.

A few tips to history and archaeology education:

The questions put to students and the categories of responses entail a couple of possible and useful clues to history and archaeology teaching practices. Those clues are distant from (a) just leading students to just focus on material elements or, which is much worse, (b) exhibiting objects just to confirm the narrative exposed by the teacher (Cainelli & Lourençato, 2011). In order to promote historical and archaeological learning in classroom it is crucial that teaching with objects is oriented toward thinking on human actions in the context where they were used, with specific purposes, resources, constraints, envisaging all that in a perspective of continuity and change.

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## LEARNING HISTORY BY INFERRING FROM ARCHAEOLOGICAL OBJECTS IN THE CLASSROOM

### Abstract

This paper vindicates the importance of the use of heritage sources, particularly archaeological objects, in history teaching and learning. Material remains can be approached through specific questions about the nature of the sources since they are related to human actions in the past and therefore able to promote the construction of historical meaning. Within an essentially qualitative approach with the aim to comprehend students' perspectives regarding the uses material sources, an activity of history education has been carried out, intending to understand how Portuguese seventh grade students of a secondary school in the north of Portugal make historical sense of replicas of roman archaeological objects. The study was carried out with 80 seventh grade students of a school in northern Portugal, answering a set of questions related to two observed and handled replicas. Results show that archaeological objects can contribute to the interpretation of the past by different individuals. Although descriptions based on information or object details have prevailed in students' answers, several students revealed to interpret evidence in context, making inferences based on previous knowledge and making conjectures about social, economic or cultural features. Manipulation and sensory exploration of objects, and specifically archaeological ones, are strategies that allow for very fruitful learning experiences. As well, the use of replicas in the classroom stimulates the curiosity of students and encourages a visit to the museum or interpretive centre where the real archaeological objects are displayed.

**KEY WORDS:** ARCHAEOLOGICAL OBJECTS, REPLICAS, INFERENCES, HISTORY EDUCATION, HERITAGE EDUCATION.

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## LEARNING HISTORY BY INFERRING FROM ARCHAEOLOGICAL OBJECTS IN THE CLASSROOM

### Introduction

Traditional school curricula prescribed a way of teaching of history that focused mostly on presenting national heritage to students, and showing history as a set of information to be accepted and memorized. “Primary sources” were only occasionally used to stimulate curiosity and interest, or to illustrate specific cases (Pinto & Molina, 2015). But this situation can still be observed in current curricula, in which references to the use of material sources, and especially to archaeological ones, in teaching practises are not as frequent as it would be desirable.

Observing objects or an archaeological site could be a key educational experience to enhance students’ historical thinking through the interpretation of material sources related to diverse life features of a community in the past. If knowledge entails objects’ observation within their context, and to realise how they interact and which features they stand out, it is also relevant to note that students’ responses are more difficult to predict outside the classroom. Thus, it is essential to undertake systematic studies on educational experiences with students of different ages, since progression in historical thinking also implies the recognition of historical evidence as a means of understanding historical and social concepts and demands significant learning in context (Pinto, 2011).

Several studies on museum education and in the field of history education have also revealed the possibility of developing students’ notions of historical temporality, through the mediating action of objects of material culture (Cooper, 1992; Hein, 1998; Hooper-Greenhill, 1999, 2007; Barton, 2001; Nakou, 2001; Fontal, 2003; Levstik, Henderson & Schlarb, 2005; Chapman, 2006; Estepa & Cuenca, 2006; Pinto, 2011, 2016; Santacana & Llonch, 2012; Santacana & Martinez, 2013), and there are affinities and complementarities between them regarding educational approaches of historical objects and sites.

Although the use of different kinds of sources is included in the school history curricula, the emphasis given to political and economic history surpasses the analysis of social and cultural contexts, restraining the opportunity to develop active approaches by using objects, archaeological sources or other primary sources. Consequently, material heritage has not found its place in textbooks too, and even if it is included it stands a mere illustration of content, frequently appearing at the end of the chapter. To surpass this situation, teachers should carry out educational

experiences with observation and handling of objects, and if possible with simulation of archaeological excavations since they allow the development of conceptual, procedural and attitudinal skills, and stimulate the contribution of diverse curricular areas (Egea & Arias, 2013). However, it should be assured the familiarization of students with cultural and artistic heritage, as well as the possibilities they offer for the development of historical skills.

According to the European study “Youth and History” (Angvik & Borries, 1997), young Europeans revealed to be more aware of historic buildings, and less attentive to heritage lacking of monumentality. In a research carried out with British students, Nemko (2009) drew attention to the fact that students do not always recognise that monuments, especially commemorative ones, are constructions of the past, i.e. they represent interpretations and deliberations about the past by societies at specific moments in the past. It should not be enough for teachers that students simply enjoy historical sites as tourists. Students need to consider and to evaluate the intentions for the construction of different monuments, as well as to critically analyse other sources in history class. Nemko (2009) has classified students’ responses to a task of selecting photos from a visit to a historical site according to three perspectives – chronological, abstract, and content-centered – in order to allow an understanding of students’ construction of the past. Most students chose monuments from the Great War, the 1920s and the 1930s, in Ypres, France, and the subsequent debate has revealed slight understanding that reconstructions of history cover implicit interpretations.

Despite some progress, heritage is still seen as a decorative or prestigious element. Many heritage depredations remain without admonition, and an informed consciousness, able to act in an open and global society, has not been developed with the required attention. For this to happen, more consistently and in the near future, it is necessary to develop a historical and heritage awareness at more elaborate levels, particularly with young people (Pinto, 2011).

Once approaching heritage sources in history teaching and learning, it seems crucial to carry out educational experiences with material sources, and specifically archaeological, in the field of history education action-research, aiming to stimulate students’ historical thinking and to develop their ability to interpret material sources in history lessons.

## **Learning History from Objects in Context, Theory and Practice**

Recently, Portugal and other European countries have modified their school curricula, and this has also affected the teaching of history and the place of heritage education. Nevertheless, a significant gap still prevails between the didactic potential of

heritage for the teaching of social sciences, and its presence in the guidelines of the curricula (Pinto & Molina, 2015).

The Portuguese history curricula includes references to direct contact with heritage sources stating that in elementary education all students should have the opportunity to experience history learning activities that involve (Abrantes, 2001) direct contact/study with historical and cultural heritage, and especially artistic, architectural and archaeological heritage, at national and regional/local levels, through study visits/field work for collecting, exploring and evaluating data. It also entails connections with young people from other communities, cultures, religions, ethnic groups, especially from European countries, allowing mutual knowledge of each other's history and historical-cultural heritage, highlighting mutually positive influences.

However, the implementation of curricular outcomes content centered between 2011 and 2017, reinforced the role of contents that students should learn, and the acquisition of information as a leading skill. There are scarce references to the use of sources to interpret historical contexts, and the implicitly suggested sources simply illustrate knowledge since they demand students to identify different types of heritage and hardly ever of measures for its preservation. There are also direct mentions such as listing features of tangible and intangible heritage bequeathed by the Romans, or identifying tangible and intangible vestiges of Muslim culture in Portuguese territory. Thus, a possible improvement in the teaching of history and other social sciences through heritage education has not had an impact on the new curricula, where heritage is spoken of, but in a very superficial and inadequate way (Pinto & Molina, 2015).

In several countries, such as the United Kingdom, researchers for decades have been drawing attention to the fact that the teaching of history is often confined to secondary sources, producing general and stereotyped statements, with no indication of the sources on which it is based or of biased interpretation and explanation of the past (Cooper, 1992). In addition, the concepts of time and change, cause and effect, are rarely developed and artefacts are usually presented as curiosities, rather than sources from which students could infer regarding people who used them and how their lives may have been influenced by them. The proposed school activities rarely involve reconstructions based on historical evidence by asking questions and using historical concepts.

Teacher training, both for primary and secondary education, also needs to broaden the inclusion of primary sources in the classroom. Such action depends to a great extent on the transfer possibilities of the proposed activities, for their adaptation to the local historical and archaeological context (Egea & Arias, 2013). This would provide a basis to structure curricular content and education proposals with the essential components to advance towards a significant learning.



Working with objects in history classroom, besides being motivating, also allow an active engagement in which students research, hypothesize, discover, explain, and consider historical perspectives. Objects may refer to countless meanings, and in order to discover them it is necessary to know how to interrogate them. This implies to relate objects with the knowledge they hold, to make them understandable, to fix them in memory and to use them as anchoring elements for learning new concepts (Santacana & Llonch, 2012). Since objects are something concrete, endowed with some material features, they can be observed, described, touched, smelled, classified, contextualized, drawn, they can be compared with other objects, or recall other memories. A process of analysis should lead students to look at the details of the object and to try to understand its function and functioning, its manufacturing process, the economic implications of that process, etc. (Santacana & Llonch, 2012). All this implies a systematic analysis that entails morphological, functional, technical, economic, sociological, aesthetic and historical-cultural aspects.

Dickinson and Lee (1978) draw attention to the simplistic idea of stating that the specific nature of historical materials – archaeological sites, historical buildings, photographs, original letters and documents, etc. – could for itself help children to discover the past. Actually, what makes them historical materials is our understanding about them. If we want to be successful in using primary sources, with more than just arousing interest, students should understand them as a means of getting closer to the past it is tempting, but misleading, to ignore this fact and assume that children automatically approach “real” history if they contact primary sources.

Active and constructivist learning, through problem solving, allows students to act on their experiences and cognitive constructs, to learn through the senses – to feel, to touch, to see – to apply their learning in new contexts for integral (emotional, social and cognitive) development. The use of teaching strategies that involve meaningful experiences, such as visits to sites and museums where children can explore and extrapolate, with tasks providing open-ended questions to sources – allowing differentiation between “knowing”, “guessing” and “not knowing” – and vocabulary with different levels of abstraction, in spaces where young people can feel confident to speak, are central to the development of their historical thinking (Cooper & West, 2009). Therefore, this work must begin early, to provide children different possibilities to solve progressively complex historical problems and to learn abstract historical concepts.

If students study the past through museum objects, guided by appropriate questions, they can more easily develop their historical thinking. Museum objects lead students to try to decipher their meaning, boosting their historical imagination and allowing them to recognize that the past cannot be known directly (Nakou, 2001). According to Alvarado and Herr (2003), an essential aspect of object-based learning is that it can be a vehicle for developing understanding of concepts. Starting

with initial thought-provoking questions and guiding questions that lead students to focus on objects, and use them to discover information, ask their own questions or formulate hypotheses, and share their findings with colleagues, so teachers do not need to tell students the connections between objects.

It is important that students use objects in the classroom and in museums as a process, not a moment, as they need time to learn to read them, i.e. *“the basic principles of analysing an artefact”*, according to Andreotti (1993, p. 21) and to make inferences about the past. Objects generally have both a practical and a social function, and students’ observations can be guided to be organized logically according to technology, conditions (circumstances in which it has been conserved), style, area of production (inscriptions revealing information about artisans). Durbin, Morris and Wilkinson (1996) also argue that knowing how to interpret objects creates positive links between students and societies, past and present ones. Objects provide a concrete experience that clarifies abstract thinking, helps memorization, since physical sensations and emotions are retained longer than ideas obtained by words. The study of objects allows the learning of various concepts such as chronology, change and continuity, aesthetic quality, originality/imitation, heritage, collection, preservation and conservation. Durbin Morris and Wilkinson (1996) sustain that it is necessary to guide students to observe the signs of the original use and the current function of objects, and to recognize that an object, if not valued by one society, may have been valued by others; or may have a different social, religious, or political meaning to different individuals. To understand the meaning of an object we must analyse what it reveals about the people who did, used and conserved it, their practises and social behaviours, resources, economy, technology, politics and religion. To teach and learn with objects, it is sometimes more appropriate to do it in the classroom, and on other occasions, visiting historical sites and museums. But these visits will be more helpful if students have learned techniques of object analysis before.

We all relate to objects and learn by experience through them. The tangibility inherent to the material nature of objects makes them suitable for education since an early age. Connecting characteristics of the objects with more general concepts, and reaching conclusions about the historical, social and cultural context in which they were produced and used, helps to detect changes and continuities linked to the object, and promotes imagination and historical empathy (Llonch & Parisi, 2016) if teaching and learning strategies ground on the premises of object-based learning.

Direct contact with artefacts and historic buildings is an opportunity to deepen knowledge about people, places and events, but it must allow much more. Students must construct their interpretation of historical sources, relating them to their current learning and their previous knowledge, but it is also desirable that they ask questions and explanatory hypotheses about the past of an object, building or site.

Hence, students develop skills to interpret a nearby site, building, or object, and can also apply them to other historical objects or places.

## Archaeology and History Learning

Visits to archaeological sites with primary and secondary school students are among the most fruitful historical education activities, which should be encouraged whenever possible, at least if they are not far away from the school.

Material remains are not, by themselves, history or 'the past', but provide a basis for building historical knowledge (Husbands, 1996). Some issues may result from evidence provided by a remain, others from knowledge about the context. The questions will be different whether the focus is on the nature of the technological process, on social change, on the organization of society, or on some other aspect. Therefore, questions can be organized according to the nature of thinking that students can develop to construct their answers (Pinto, 2011). The most important thing is not that students give 'accepted' answers, but that they learn to observe, interpret historical sources and relate them. Students' comments on more or less familiar objects may be more or less valid, but it is important for them to understand that over time the function of objects may have changed – noticing the characteristics and changes in objects, the circumstances that permitted its conservation, or the style, which often allows the object to be dated. If the concept of temporal change is initially related to the idea of linear progress, it is necessary to develop the notion of simultaneity, and teach to think historically from the understanding of the multiple times and spaces that characterize each society (Cainelli, 2006).

Considering school activities with archaeological sources, it is less important to provide previous information to the students than asking questions that lead them to interpret and present their explanations, and discussing them (Andreetti, 1993). The point is not that students give true answers, but that they learn to observe and relate evidence in order to support a theory. Chapman (2006) suggests tasks related to archaeological finds in which young people can select information, draw conclusions based on 'facts', identify the conjectures, and discuss them in groups. Therefore, students can be helped to recognize that there are inferences that depend on conjectures, but are not supported by evidence, while other inferences are based on valid assumptions. Students familiarised to thinking in hypothetical terms may achieve better performance when confronted with historical arguments and interpretations.

On their study with archaeological sources, Levstik, Henderson and Schlarb (2005), revealed that U.S. elementary students recognized the means by which culture shapes and is shaped by human or object interaction, by connecting archaeological reconstructions of the past with materials familiar to them. When researchers asked

students to explain the relationship between objects and the understanding of the past, some gave meaning to objects as elements of a story, others as sources, or as clues in a mystery, or integrated in a context. Generally, students seemed to understand that material remains of the past help to answer archaeologists' questions, but they are incomplete. This view of archaeology as an open-ended or unfinished investigation contrasts with their descriptions of history, a complete and non-negotiable narrative for most of them. Therefore, Levstik, Henderson and Schlarb (2005) stress that although students have not always established a clear relationship between the material remains and the cultures that produced them, they recognized that careful observation of artefacts leads to better inferences and a more complete history.

Ribeiro (2002), in his study with Portuguese students on history education, focusing on archaeological thinking, and carried out with 20 fifth graders (10/11 years) in the classroom, using archaeological objects from Prehistory and the Romanization, together with the textbook and a secondary source (a newspaper text), applied two questionnaires with the same structure for each historical period, in order to analyse four conceptual domains: (1) identify objects; (2) identify their functions; (3) infer about the past from objects; and (4) make conjectures about objects. In addition, 13 students were interviewed to clarify their responses to the questionnaires. Inspired by the work of Ashby and Lee (1987), four levels of progression of students' ideas were categorised as a result of data analysis: (1) The opaque past; (2) Generalized stereotypes; (3) Everyday empathy applied to history; and (4) Restricted historical empathy. This study, by analysing students' inferences from archaeological sources, has also contributed to the understanding of students' ideas about evidence in history, since it revealed an oscillation of students' thinking according to the historical period and stressed the importance of using archaeological sources in the classroom in order to foster constructivist learning and, in view of that, the development of students' historical thinking.

Another Portuguese qualitative study, this time carried outside the classroom and focused on the role of podcasts in building knowledge about local history, connecting research on history education and educational technology (Rodrigues, 2010), sought to understand how a group of 15 fifth grade students interpreted sources of local history (*Bracara Augusta*) during a school visit. Data analysis focused on the frequency of details in students' descriptions, but also in the relevance attributed to each one of the observed archaeological remains – according to four dimensions: identification, description, temporality and function. It was intended to understand how the students deal with historical evidence through the use of podcasts and what advantages they see about their use in the study of local history. Several students revealed ideas of temporality and conjectures on some observed remains, and this reinforces the idea that students should contact since an early age with heritage sources through direct observation, and if possible, complemented by the use of

new technologies, getting involved in the progressive construction of their historical knowledge.

These experiences by allowing students to move from what they already know to what they would like to know, encourage them to see historical objects and sites as sources of evidence, and to develop a critical evaluation of historical sources, as Cooper and West (2009) point out. Bringing students to ask questions, after providing them with some key information, allows them to approach researchers' questions, enabling contact with the nature of historical research.

## **The Use of Replicas of Archaeological Objects in History Classroom**

Observing objects in context, or even in a museum, or a historic site can be an ideal educational experience to stimulate students' historical thinking through the interpretation of primary sources. However, this is not always possible, and we cannot expect museums to lend us their best objects so that we can explore their production and uses. But sometimes we can use replicas of the objects and provide an interesting object-based learning activity using them.

Regarding educational experiences with the use of material and other sources, Cooper (1992) pointed out the use of similar sources for ancient and recent periods to find out whether children reveal a similar number of valid assumptions. Carrying out cross-sectional studies with a wide age group, using the same questions, but with progressively more complex sources (a fragment, then diverse sources, followed by contradictory sources and, finally, sources with bias and different points of view), or presenting the same source with progressively more complex questions.

Following this theoretical framework in the field of cognitive psychology and history education, the study reported here was carried out in history classroom with 84 seventh grade students (12 and 13 years old) of a secondary school in northern Portugal. The education activity stood on a systematic research with several groups of seventh and tenth grade students of secondary schools of the region (Pinto, 2011), with special attention to the use of heritage sources in history teaching and learning, and taking into account its relationship with the process making sense of the past.

The aim of the education activity was to stimulate students' historical thinking and to develop their ability to interpret material sources in history classroom. It was intended to answer the following research question: How do seventh grade students use and make historical sense of replicas of Roman archaeological objects?

## **Procedures**

Ten replicas of museum objects were selected as to ensuring that they all corresponded to the same historical period and to a specific curricular content that seventh grade students would study throughout the school year. Most of the replicas are from the archaeological museum D. Diogo de Sousa (MDDS), in the same region of northern Portugal: a roman bowl (12cm); an oil lamp or 'lucerna' (10cm); a small oil lamp (5cm); a small sculpture of the goddess Minerva (7cm); and three replicas of roman coins – 'As' (from Augustus period, 25-23 B.C.), 'Denarius' (from Marcus Antonius period, 32-31 B.C.), 'Aureus' (from Hadrianus period, 125-128 A.D.). Some of the replicas are from a foreign museum, the Museum of the Roman Theatre, in Cartagena, Spain: an open oil lamp (6,5cm); and two replicas of bone hairpins (15,5cm and 8,5cm).

Objects were chosen due to their relation to a significant historical context, both at regional, national and international level, within seventh grade history curriculum – specifically the topic "Rome and the Empire", in the theme "The legacy of the Ancient Mediterranean" – to design and implement an history and heritage education activity that would be a genuine cognitive challenge for students. Nevertheless, the activity was carried out before students have started the study of the topic in the school year. With this activity it was aimed, among other purposes, to understand how the students used material sources and related the observed details with their prior knowledge.

A questionnaire proposing to students two sets of written tasks related to the observation and interpretation of material sources was used for data collection. Each student observed and handled two objects (replicas of archaeological vestiges) which were placed on the work tables (Figures 1 to 3).

After observing the replicas and reading a brief informative label, each student responded individually to three questions, the same set for both objects:

1. What do you think you might know about this object?
2. What importance would it have for the people who used it? And for you?
3. What question(s) would you like to ask to know more about this object?

The proposed questions are guiding, specific and gradual questions, with increasing degrees of complexity, as defended by Collingwood (1992) and followed by various authors (Cooper, 1992; Pinto, 2011, 2016). The same enunciation of questions was used for both tasks in order to compare answers concerning different objects.



**Figure 1.** Seventh grade student handling a replica of a roman bowl (MDDS). Photo: Helena Pinto, 2017.



**Figure 2.** Seventh grade student handling a replica of a roman oil lamp (MDDS). Photo: Helena Pinto, 2017.



**Figure 3.** Seventh grade student writing about a small sculpture of the goddess Minerva after handling the replica (MDDS). Photo: Helena Pinto, 2017.

The three questions start from the information available for inference and students' queries about the observed material sources – starting point for interpreting sources as historical evidence and to bear out that they are incomplete (Cooper, 1992; Nakou, 2001; Levstik, Henderson & Schlarb, 2005). Furthermore, this allows students to be aware of what they do or do not know, and of their learning process (Lee, 2005). Implementing this type of activity favours students' critical interpretation since it entails their active participation and metacognition procedures connected to a constructivist learning process.

### ***Data Analysis***

It was intended to analyse how students hypothesise based on the observation of objects and reflecting on the available information, and also on their previous knowledge (Shemilt, 1987). Thus, as regards the use of evidence, i.e. how students use information and infer from the sources, it was aimed to find out whether they understand sources as direct providers of information, or whether they contextualize the information across a wider range of prior knowledge, or whether they question various possibilities. Additionally, it was expected to identify students' ideas about the past-present relationship, their empathy regarding people's actions in the past and the significance (Levstik, 2000) students attributed to the sources.



In the questionnaire applied to the students, the first question – What do you think you might know about this object? – it was intended to obtain data on the observation of the materials, the functions of the objects, the beliefs, symbols of power and the connection to individuals or events, and even the context of production of the objects and references to changes in time.

With the second question – What importance would it have for the people who used it? And for you? – it was intended to analyse how students evaluated the relevance of material sources and how they critically justified their perspective. This could provide some indication of the kind of awareness students reveal about the valuation of objects preserved in museums (to which these replicas correspond), about the past-present relationship and, if possible, about the heritage concepts implicit in students' answers.

Finally, the third question – What question (or questions) would you like to ask in order to know more about this object – intended to lead students to formulate questions about the observed material sources in order to stimulate reflection about their historical interpretation and the research process itself.

The analysis of student answers was supported by content analysis (Bardin, 2009) and a process of inductive analysis by constant comparison (Strauss & Corbin, 1998) following the conceptual model developed in previous research (Pinto, 2011).

## Students' Inferences from Archaeological Replicas

In the following paragraphs some examples of the participating students<sup>2</sup> answers are presented according to the conceptual profiles in terms of students' use of evidence.

### *Alternative Idea*

Some students revealed vagueness or confusion, using common sense ideas they extrapolated to the observed object. In the answer to the second question, Anabela stated: *"The importance for those who used it [small lucerna] was to store sauce"*. Answering the first question, after observing a replica of a *lucerna*, Manuela answered: *"I think it is a lamp to make a wish"*. Answering the same question, but regarding a replica of a hair pin, Emilio wrote: *"I think it is an indigenous object, perhaps the real one was used by a native"*.

2 The names are fictional, in order to preserve students' anonymity.

### *Inference from Details*

The majority of the students made a description reporting information based on a slight interpretation of the sources. Answering to the first question, Bianca wrote: “*It is a coin [Denarius] that was made by Mark Antony in 32-31 B.C.*”, sustaining it on the label information that joined the coin. Answering the same question, but regarding a replica of a hair accessory [bowed hairpin], Fernanda simply replied: “*It’s good for fixing the hair*”. After answering the first question, saying that the observed replica [a linear hairpin] was a writing plume, Dinis questioned himself when answering the third question: “*Is it really a writing plume?*”, revealing interest in confirming this functional detail. Answering the same question, but in relation to a replica of a coin, Joaquim revealed interest in details when he asked: “*Why is there a face on the coin?*” Similarly, after observing the replica of Minerva’s small sculpture, Renato asked: “*Why doesn’t she have one hand?*”

### *Inference from Context*

Some students made inferences based on previous knowledge, positioning the information in time or establishing some link with the political, economic or social and cultural context. Replying to the first question, when observing the replica of a coin (aureus) and the label information, Vincent stated: “*It has two names, Hadrianus and Augustus, and seems to be made of iron painted in gold, it has an image of a Roman person, it is very old and seems a bit damaged*”. Answering the third question, regarding a replica of the small sculpture of the goddess Minerva, Robin asked two questions, and in the second one he seems to be referring to his previous knowledge: “*Was this his original size? Was it a sort of amulet or something like that?*” Starting from the knowledge of the present, Delfina made a simple comparison with the past by answering the second question about a roman *lucerna*: “*[It was important] because at that time there was no electricity and they used the oil lamp*”. Using her previous knowledge and some available information, Fabiana answered the first question after observing the coin [As]: “*I think it is an ancient roman coin, made of bronze and it was found in an excavation*”. Responding to the second question and outlining a past-present distinction, Artur observed a replica of a roman cup and declared: “*Its importance for those who used it was for drinking, and for me it is an ancient and valuable piece*”. Another example, showing interest in functional aspects, is Gilberto’s answer concerning a replica of a hairpin, when answering the third question: “*What was it used for?; Do the drawings have any meaning?*”

## Questioning

A small number of students made inferences by problematizing, i.e. they made questions about the context in terms of time relations and formulated hypotheses according to different possibilities. Answering the third question, Brigitte placed several questions revealing a reflection on diverse aspects – functional, economic and political – in the same context: “*Why does the coin have the name As?*”; “*Who was the man represented in the coin?*”; “*Were there different currencies or were they all the same?*” Replying to the second question, Marcela conjectured on various functions of the observed object, relating past and present: “*The object [lucerna] would be to hang, it could be used for decoration or maybe as a lantern to illumine. Today it may have the same function*”. Regarding the same object and question, Emanuel revealed conjectures considering several possibilities and a wide temporality: “*Its importance for the people who used it was to convey something, or to contain some liquid, or to illuminate. The importance for me is that we can verify how objects have evolved since the second century A.D. to present-day*”. The last example is from Julianio’s reply, after observing a replica of a roman coin [aureus]. He revealed personal inferences, relating different contexts when answering the second question: “*This coin(s) was essential for the people of that time, to acquire important goods. For me, this coin is to be kept or exhibited because it is no longer in circulation*”.

## Final Considerations

From the analysis of students’ answers, it should be noted that the majority (around 70%) focused on mentioning one or more details they observed or on copying some available information. They also included in their answers some elements related to the identification of the object (name of the object and, in some cases, where it was discovered or where it is displayed today), its morphology (shape or dimensions of the object, materials and level of conservation), functional features (what uses it could have), techniques (how it could be manufactured or produced), economic (type of production, trade, etc.), social (groups who used it), aesthetic (simple or complex) and historical-cultural (chronology, context, how did the object evolve, continuities/similarities), agreeing with some of the of the object analysis’ proposals of Santacana and Llonch (2012).

Students descriptions based on information or details of the sources predominated and their conjectures pointed mainly to factual details. In addition, a large number of students have assessed the attitudes of past people in the light of current values (Ashby & Lee, 1987; Lee, 2005). Additionally, regarding the third task/question, most of the participating students conveyed simple questions about the functions of the observed objects, even if they had referred to it in the previous answers.

Nevertheless, several students seemed to interpret sources in context, making inferences based on prior knowledge and formulating conjectures about social, economic or cultural aspects. Some of them revealed a linear understanding of the past/present relationship about the use and function of material sources, despite contextualizing them economically and socially, revealing an emerging temporal orientation. In some cases, the answers seemed to show a more complex historical thinking by including temporal relations showing an awareness of the historicity of the sources and by formulating hypotheses according to diverse possibilities.

The practice of this type of history and heritage education activities is very useful if developed in a systematic way and according to methodological criteria, with challenging tasks of students' previous ideas. Thus, learning can become more sophisticated when students infer from sources (written, iconographic and material ones) and propose questions rather than answering to those they were asked.

It should also be noted that the use of classroom replicas also stimulates students' curiosity for a visit to the museum or interpretive centre where real archaeological objects are exhibited. The proposed tasks/questions could be applied to all kinds of objects, or to be adapted to buildings and archaeological/historical sites, and also to be carried out with individuals of different ages (Pinto, 2011, 2016).

In synthesis, these approaches can stimulate historical understanding, but also heritage awareness, if teaching is not restricted to the repetition of factual information, but encourage students to interpret different sources, to critically question sources, and to raise increasingly complex questions. Doing this, students can give meaning to heritage, and specifically to archaeological objects, as historical evidence and not merely as an illustration, by integrating them into their respective historical contexts.

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## WHAT 'REMAINS' OF THE PAST? HISTORICAL THINKING THROUGH HISTORICAL ENQUIRY

### Abstract

This paper presents a case study of historical enquiry into the past based on the exploitation of material remains. It focuses on the research tools we could employ to help pupils interpret the past using material residue. It was applied to 25 pupils aged 16-17 in a history class. The research was conducted at two distinct learning spaces: the museum and the school. The research tools comprised a questionnaire and participatory observation; the questionnaire included the study and exploitation of the material remains with exploratory questions referring back to concepts of historical thinking (significance; causes and consequences; continuity and change in time; historical perspective; the ethical dimension of interpretations of the past). Subsequently, the pupils' work was presented using the wiki environment on a pbwork platform. A content analysis paradigm was implemented to analyse the data. The findings showed that the pupils, in most of their responses, seemed to have grasped the historical significance of the material remnants under study. They elaborated more on some exploratory questions (concerning the concepts of evidence, cause and consequence, continuity and change, historical significance). Findings highlight the role of history didactics in the school and museum environments, one that is aware of the possibilities and limitations of each venue that also sets a step by step method for the disciplinary approach to the past.

**KEY WORDS:** MATERIAL REMAINS, HISTORICAL THINKING, SCHOOL, MUSEUM, DISCIPLINARY APPROACH.

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### Introduction: The Trigger

The present paper concerns a case study of historical enquiry into the past based on the exploitation of material remains. It emerged as a continuation of reflections and new questions regarding the research results fuelling my doctoral thesis *Historical Education, in the School and in the Museum* (Kouseri, 2015). The said research was designed to investigate whether and to what extent pupils can express historical thinking using physical residues as testaments to the past. To this purpose, I set out to explore the following parameters: (a) the pupils' expression of historical thinking in relation to the three different forms archaeological remains is presented in (as objects on display in the museum and as images, printed or digital, at school); and (b) the pupils' perceptions regarding the processing of material residue in these three presentational formats in the school and museum environments.

Building upon the main research question, one pilot (N=50 pupils) and one empirical research were conducted, with the sample totalling 189 high school pupils (12-13- and 15-16-year-olds). In addition, 78 pupils – a part of the total sample – were interviewed in order to deepen our knowledge on pupils' historical thinking and perceptions. Research tools focused on the concepts of significance, continuity and change in time. Data were collected from the pupils' written responses to a questionnaire, from their oral responses during a semi-structured interview, and from the researcher's own observations during the whole process. The data analysis was conducted using qualitative methods (content analysis).

Findings showed that, in general, pupils grasped the historic significance of the material remains they studied. They talked about them in relation to their historical context and resting on the recollection and use of pre-existing historical knowledge or relevant information. Pupils expressed *interpretative historical thinking* (the highest category of historical thinking according to the category system adopted here) in only a comparatively limited number of their responses, a result that seemed to correlate with the 'traditional-style' education they had received, during which they were drilled to reproduce the historical narrative of their school textbooks. However, the expression of interpretative historical thinking in some responses apparently associates with the historical or non-historical character of the questions, tasks and types of the material remains under study.



The results obtained engendered new questions such as: How does historical enquiry factor in when studying material remnants in my everyday class? What form does this historical enquiry take (as regards the related tools and activities)? Is it understood in different ways in different environments (i.e. school and museum)?

To this end, I will now present a small-scale case study pertaining to enquiry-based learning in ancient history. This enquiry was encouraged by and performed through effective exploratory questions alluding to the essential *second-degree* concepts. More precisely, I will present an example of historical enquiry that supports the theoretical consensus as well as the results of the research previously mentioned, underlining the necessity of an interaction between informal and formal history education.

## **Exploitation of Material Remains through Disciplinary Approach and Historical Enquiry**

Contemporary research in the field of history education centers on issues related to historical literacy, historical thinking, and pupils' historical consciousness (Lee, 2011, 2017). In particular, the focus is on the disciplinary approach and *second-degree concepts* (Asbby, Lee & Shemilt, 2005; Lee, 2005, 2017; Asbby & Edwards, 2010; diSessa, 2014; Chapman, 2017) and how these can be explored or evaluated in the context of history education at school (Seixas & Morton, 2013; Ercikan & Seixas, 2015; Hammond, 2014; Fordham, 2016). The search for frameworks of content knowledge within which pupils can develop coherent images of the past as well as time orientation are issues of direct interest (Counsell, 2000, 2011, 2017; van Drie & van Boxtel, 2016). Moreover, there exist studies which investigate how to develop processes of historical enquiry in the classroom (Counsell, Burn & Chapman, 2016; Chapman, 2017).

The theoretical and methodological background of this paper comprises contemporary approaches to history education and, more specifically, views about historical enquiry and the expression of historical thinking based on the exploitation of material residue of the past (Kriekouki-Nakou, 1996). According to the disciplinary approach, pupils are encouraged to process historical sources in order to express their ideas about the past, to pose their own questions and to seek answers by investigating historical sources. At the same time, they are made aware that different historical questions lead to different narratives of times by gone and are urged to comprehend both history and the past through second-degree historical concepts such as evidence, cause and consequence, continuity and change, historical significance, the ethical dimension and historical perspectives (Seixas & Morton, 2013).

Historical enquiry is based on practices of the disciplinary approach and specifically on *exploratory questions* designed to help pupils *construct* conceptual knowledge

parallel to their historical knowledge (content knowledge) and to effectively articulate historical thinking.

More specifically, as Rebecca Sullivan (2018, paragraph 1st) notes:

*“An ‘enquiry’ in the history education community is shorthand for a sequence of lessons integrated by a direct focus on a single ‘enquiry question’ and within which pupils build knowledge systematically and cumulatively in order to be able to answer that question by the end of it. A well-crafted enquiry explicitly facilitates a knowledge-rich approach to history and allows the teacher to guide the pupil through complex and contrary histories rather than leaving them to reach ill-informed judgements without adequate knowledge.”*

Essential to the historical enquiry is the use of historical sources. Material remains are a sort of historical sources. Material remains constitute historical representations that flood pupils’ everyday lives; it is therefore argued that young people come into contact with material culture on a daily basis, and that there is a similar intimacy with the material culture of the past (Barton & Levstik, 1996). For pupils, archaeological residue is tangible evidence of life in the past (Jones, 2011) and offer them the opportunity to understand concepts such as historical perspective, historical context and recontextualization in historical space and time (Kouser, 2015).

According to Ashby (2011), the use of material testimonies by students has many pedagogical benefits for understanding the meaning of historical sources since materiality may trigger rich and novel questions. In addition, Lee (2011) argues that material culture can play an effective role in teaching history because didactic approaches focus on the concept of change in time and, consequently, pupils can shape the ‘big picture of the past’. More specifically, Lee (2011, p. 143) asserts that: *“A framework that identifies changes in material life, social and political organization, and a variety of other themes offers a potentially powerful tool to allow genuine orientation in time. Such a framework of change enables teachers to explore markers or criteria of change with students.”*

In particular, the disciplinary approach suggests that the emergence of historical thinking from the study of material sources of the past is a complex process that refers to the *historicity* of the past, the processes of reconstruction of historical knowledge and finally the expression of interpretive reflections on the *historical past* in the present, as Nakou (2000, p. 22) contends. Many researchers in the field of historical education claim that archaeological findings are more than just another type of evidence since they are open to different interpretations (Nakou, 2000; Jones, 2011). The alternative interpretations of the past as regards the study of material residue in the museum environment – both in terms of how they are redeveloped in our world (i.e. the exhibition in the museum) as well as the composition of meaning

by their readers – result in a profusion of viewpoints that feeds the process of historical thinking (Nakou, 2000).

## **Research Specifics**

### ***Methodology***

The aim of this research was to try to understand what historical enquiry in a regular, everyday lesson means by exploiting archaeological remains as testaments to the past. The *case study* paradigm was adopted as the research method. In particular, the type of explanatory case study presents data that justifies the correlations of causes and effects of individual events (Creswell, 2011). Exploratory historical learning supplemented by primary historical material is an innovative process for secondary education in Greece and is included in the new national curriculum (Voglis, Kasvikis, Kokkinos, Koulouri, Palikidis & Tsafos, 2018). The present study attempts to highlight this new teaching strategy and to better elucidate the way pupils approach the process; ultimately, it aims at contributing to the theoretical foundation and actual design of exploratory learning environments.

### ***Objectives***

Through this case study, pupils were expected to:

- understand the significance of material remains as historical evidence of the past;
- develop skills in historical research using the conceptual tools of historical thinking (second-degree concepts);
- develop new literacy skills;
- develop cooperative and communication skills.

### ***Population and Sample***

As concerns the total sample (see Table 1) of the research participants, a specific section of the wider student population was chosen, one considered satisfactory enough for carrying out this research along the lines of Cohen, Manion and Morrison (2008). The main phase of the survey was conducted in December 2018; a total of 20 adolescents (total sample = 20) participated in the class. Therefore, the research sample is a convenience sample, so its selection is not random (Cohen, Manion & Morrison, 2008, pp. 163-164) and the results are not a practicable generalization.

| Number of participants | Boys | Girls |
|------------------------|------|-------|
| 20 pupils aged 16-17   | 9    | 11    |

**Table 1.** Sample population.

## **Research Tools**

Qualitative tools were used for data collection (observation, written assignments and student notes). The pupils' enquiry revolved around a collection of four pre-selected objects on display at the Archaeological Museum of Athens (see Appendix 1):

- Figures 1 and 2: The Phrasikleia Kore (540 BC) and the Volomandra Kouros (550 BC).
- Figure 3: Aristion Column (510-550 BC).
- Figure 4: The Mycenaean dagger of the Late Helladic period I (16th century BC, Tomb IV in the burial precinct A at Mycenae).
- Figure 5: The golden earrings of the Late Helladic period I (16th century BC, Grave III, enclosure A).

I wanted to use archaeological remains as research tools because artefacts of material culture can act as a 'trigger' for discussion. Apart from these, I also made use of two questionnaires, one developed for one-site (viz. at the museum) and one for class historical enquiry in order to understand how a material source may become evidence in response to an enquiry question.

Riley (2000, p. 10) claims that the role of the historical enquiry question is crucial in history teaching, concentrating especially on a careful wording that highlights "*an evidential problem as part of it*". Taking into consideration my personal queries and the literature I surveyed, I formulated the enquiry question as follows: *What can the object tell us about the past?*

In the wording of the enquiry question I attempted to see a wider planning for progression about all the *second-degree concepts*. According to Riley (2000, p. 10), enquiry questions are suitable if:

- they reinforce key themes and concepts;
- the range of question types supports the development of knowledge, skills and understanding;
- these questions seek to blend local and national history in creative ways;
- the questions manage to resolve the tricky tension between *rigorous* and *fun* (historically rigorous and pupil-friendly).

Bearing in mind the relevant literature (Lee, 2005; Seixas, 2006; VanSledright, 2011; Seixas & Morton, 2013), Table 2 shows the second-degree concepts implemented in this case study along with one corresponding (indicative) exploratory question.

| Second-degree concept                                | Exploratory question   |
|--|--|
| Evidence   | What can and cannot be answered by studying the material remains/sources at hand?  |
| Significance   | What significance do these material remains bear against their historical background?  |
| Continuity and change                                | What are the differences in importance/use of these material remains over time? What has changed and what has remained the same in the course of time? |
| Cause and consequence                                | What are the motives, intentions, causes, and consequences that may be associated with this particular material residue?                               |
| Concept of historical perspective/historical empathy | Write a letter/calendar page/make a poster based on the study of the material remains and sources you have already investigated.                       |
| Ethical dimension of interpretations of the past     | What ideas relate to the material remain of the past and what are its views in the present?  |

**Table 2.** Linking of the second-degree concepts with the exploratory questions that were used in the research.

### ***Description of the Enquiry***

My lesson plan unfolded around an enquiry question that I wanted my pupils to answer at the end of the activities. During the first hour, I presented my class with the enquiry question and gave the necessary clarifications regarding the assignments that would follow. Pupils were grouped into four teams comprising five members each, and each team was tasked with studying one of the pre-selected exhibits.

During the first lesson, I reserved time for extended discussion on the types of evidence (see Appendices II, *Instructions for the basic categories of historical evidence*) and the issue of historical claims. During the visit to the museum, pupils studied their subject and kept notes on the questions above (see Table 3 with questions of optical literacy) for a total of two hours.

Choose an object alongside your team.

The enquiry question is the following:  
*What can the object tell us about the past?*

Questions that are going to help you with your investigation:

- Describe the object that you chose.
- What are your questions about this object?
- What can and cannot be answered by referring solely to the material residue under study?
- What sources do you need to complement your study?

**Table 3.** Exploratory questions that were used during the ‘museum’ phase.

Further investigation was carried out in the classroom (see Table 4): pupils took a seat in the computer room and, with the help of their teacher, each group made a preliminary analysis of the sources and materials to be used to answer the questions. For two hours, pupils were studying their subject and keeping notes on exploratory questions (questions were loans from Why is Historical Enquiry important?).

The enquiry question is the following:  
*What can the object tell us about the past?*

Using the information extracted during the analysis at the museum, here are some ideas that may be of help in your present study:

- (a) look at a source or two
- (b) ask questions about your sources
- (c) suggest a hypothesis (a possible answer) to your questions
- (d) investigate some more source material
- (e) use this new material to test and review your hypothesis until you reach an answer you are content with

(see Why is Historical Enquiry important?)

**Table 4.** Exploratory questions that were used during the ‘classroom’ phase.

After gathering and studying the related material, pupils answered the questions in a .docx file. They submitted their responses according to the instructions in the micro-activity sheet (see Appendices III, *Worksheet with Instructions for using the wiki and posting tasks*) in a wiki environment on a pbwork platform called *my digital museum*. The aim of creating this specific wiki environment was to have the pupil’s work posted online; as a particular presentation tool, it was chosen to achieve a multimodal visualization of information and to also aid in the development of collaborative relations at the team level. Each group created their own digital page, posted their work in that specific digital environment, and submitted comments, reflections, thoughts and suggestions on the work of every other team. Representatives from each group then presented their work in plenary and proceeded to answering questions.

All the while, I was facilitating and coordinating the discussion in order to help my pupils summarize their data with an emphasis on understanding the past and expressing historical thinking. I also encouraged my pupils to reflect on the exploitation of material remains as historical sources and the creation of historical narratives. To conclude, the following table (Table 5) shows the steps of data collection and the research tools that were employed.

| Stages of data collection   | Research tools and skills   |
|---|---|
| 1st step<br>Historical enquiry into the past based on the exploitation of material remains in the museum          | Questionnaire:<br>observation, questioning, investigation of material remains               |
|   | Observation of groups   |
| 2nd step<br>Historical enquiry into the past based on the exploitation of resources on material remains at school | Questionnaire:<br>investigation, interpretation and analysis of sources on material remains |
|   | Observation of groups   |
| 3rd step<br>Presentation of historical enquiry on the pbwork platform   | Historical narratives about material remains:<br>reflection, communication                  |

**Table 5.** The steps of data collection followed and research tools that used to tackle the question *What can the material remain tell us about the past?*

## Analytical Tools and Categorization

As Rebecca Sullivan (2018, paragraph 3rd) notices:

*“Pupils’ ability to answer the enquiry question at the end of the sequence – most often by means of a written narrative or analytic essay – also serves as a fundamental means of assessing both their historical knowledge and their ability to produce an analysis in response to a type of historical question before moving on to the next lesson sequence.”*

The analysis of data is patterned on the qualitative analysis of content (Silverman, 2006). It was based on the system of categorization which resulted from the different types of answers pupils gave, a type of progression in understanding about historical accounts (Lee & Ashby, 2000; Lee & Shemilt, 2004). Historical enquiry requires reasoning and argument; the analysis of data gained from the exploratory questions examining pupils’ historical thinking highlighted four main categories framed using the category system analysis of historical thinking. This system, presented in Table 6, consists of two types of thinking: (a) *non-historical thinking* and (b) *historical thinking*, and four categories of thinking: 1. *Simple descriptive reasoning*; 2. *Logical reasoning*; 3. *Descriptive historical reasoning*; and 4. *Interpretative historical reasoning*.

| Types of reasoning         | Categories of analysis   |
|----------------------------|--|
| a. Non-historical thinking | (1) Simple descriptive reasoning<br>Linking the remnant to the present or to a vague, undefined, non-historical past.  |
|                            | (2) Logical reasoning<br>Logical, non-historical reasoning and linking the remnant to the present or to a vague, undefined, non-historical past.   |
| b. Historical thinking     | (3) Descriptive historical reasoning<br>The remnant is perceived and described in relation to its historical context through the simple use and reproduction of previous relevant historical knowledge or information but without employing interpretative historical reasoning.                             |
|                            | (4) Interpretative historical reasoning<br>The remnant is perceived and described in relation to its historical context based on interpretative historical reasoning and the utilization of prior historical knowledge and historical information pertaining to both the remnant and its historical context. |

**Table 6.** The category system for analysing data.

Most of the answers given by the pupils evinced more than one kind of reasoning; therefore, each answer can be associated with more than one of the two types of thinking or the four categories of reasoning. For this reason, it was decided that, for each answer, the final analysis should be based on the ‘highest’ rank of reasoning it demonstrates (at least for our purposes, historical thinking is considered more advanced than non-historical thinking; moreover, the higher the number, the more advanced the category, e.g. descriptive ranks higher than logical reasoning).

## Brief Presentation of Results

Reflecting on the implementation of my educational intervention and the results obtained, I first concluded that the participants, in most of their responses, appeared to have grasped the historical significance of the material remains they probed. They expressed *interpretative historical thinking* in a comparatively large number of responses, a result that seemed to be related to the activities and questions of historical enquiry.

More specifically, a group of pupils studying the golden earrings of the Late Helladic period I, answered the question *What can and cannot be answered from the sources you studied?* In their text they requested access to similar objects as well as archaeological studies and written sources that could help them scrutinize the material remain they had chosen:

*“The information we can get from the object is plentiful. Information about the jewels of this period is not obtained from written sources but mainly from archaeological excavations and findings in vaulted Mycenaean-era tombs. The offerings in these graves show us the way the jewels were made, the importance that they had for the*



*people of that time. Certainly, to complete our study, we need other archaeological studies that have been done on these objects, and perhaps other relevant items to compare views and hypotheses.”*

The majority of pupils' written answers showcased both *descriptive* and *interpretative historical reasoning*. For example, given the question *Why can this material residue be important for its historical background?* – which concerned the *historical significance* of a dagger – a group of pupils commented:

*“By studying the daggers, we can derive a lot of information about the time in which they were made. It is worth emphasizing the material, the decoration, the place where they were found.*

*By first studying the material from which they were made we can understand which materials were used in the metallurgy of that time. As their main material was copper, we can understand that it was valuable and perhaps an important commodity back then. Finally, the processing of the material can inform us about its age and therefore the time in which it was used.*

*The quality of their construction and decoration can show researchers the ability of ancient people to process metal and to improve it over time.*

*Studying the places where they were found, we may get information about conflicts that took place in antiquity, inside and outside Greece, while at the same time speculate about trade relations between peoples. It is important to mention that several daggers have been found in graves, which suggests that they also had emotional value for the people of the time.”*

In this answer, we observe that pupils set criteria for how to investigate the importance of daggers in the past (i.e. material, decoration, place of manufacture). They gradually developed reasoning in relation to these criteria and made use of both subjective information and hypothetical reasoning. The answer clearly could make use of other elements – especially the object's decorative ones – to relate it more to its importance and the perspectives that the students (business relationships, emotional value) and other missing ones (class differences).

Another example is related with the concept of *continuity* and the *change in use/importance* of a tombstone, the Column of Aristion (a tombstone), over time. The pupils narratives reveals important considerations about the values which the material residue was previously associated with and the values it may represent in our era. To illustrate, the tombstone elevates the heroic to a supreme ideal; however, there are no comparable burial customs or artefacts in the 21st century. On the other hand, pupils realized that, in our times, the burial site of individuals may still reveal class distinctions, which also was the case in the past. This view is explicitly reflected in the following of the narratives I analysed.

## ***Conclusions of Our Research***

After investigating the Column of Aristion, we reached the following main conclusions about the historical significance of tombstones:

1. The column of Aristion is an excellent example of craftsmanship; it is one of the most characteristic tombstones of ancient Athens.
2. Aristion himself is presumed to have been a soldier who served his country bravely in the years before the Persian Wars.
3. The honour of the dead was very important to people; those who represented the heroic ideal were ascribed special value by their fellow citizens.
4. The construction of a tombstone was not as affordable for all citizens; as a result, class distinctions are manifested in burial sites.

## ***Comparison with Today's Age: Dealing with Death***

In antiquity, burying the dead was a very important ritual process but also a quite different one compared to modern customs. At first, special attention was paid to the placement of objects owned by the deceased inside the tomb, in the belief that the dead needed them in the afterlife. As a rule, every dead person was bestowed the appropriate honours. In addition, if the deceased was a prominent citizen of their time, it was customary to also have tombstones built in his honour.

Today, all people are buried in accordance with the conventions of their religion. It is not uncommon to place personal objects in their grave, but the ceremony as a whole is not as important as in antiquity. More than the actual burial of the dead, people care about their loss. Burying the dead is a rather formal process and less imposing, while the creation of sculptures, such as tombstones, is quite rare for common people. As back in ancient Athens, however, class distinctions prevail, with only a few distinguished individuals being able to financially secure a tombstone for themselves.

As we show the concept of continuity of the use/significance of the tombstone over time (before the Persians Wars up to the present day) raises important concerns about the values attributed to the material residue in its historical time and the corresponding values in the modern era. The tombstone glorifies the heroic, but no corresponding burial customs or artefacts exist in our days. However, pupils found that, in our age too, the burial of individuals is again characterized by class differences.

Another group of pupils, having studied the Frasiikleia Kore and the Volomandra Kouros, gave the following response to the question *What are the motives, intentions, causes and consequences that may be associated with this particular material residue?*

*“The consequences of creating these statues are, first and foremost, the satisfaction of man’s creative nature. Sculptors were also inspired by eastern standards and learned new techniques. Artists had the opportunity to study the human body and to develop their art significantly. Thus, the Greek sanctuaries in all the cities were filled with statues, smaller or larger tributes to their faith. For that reason, we have the following causes and consequences.”*

| <b>Causes</b>   | <b>Consequences</b>                               |
|---|---|
| <i>Need for artistic and religious expression</i>               | <i>Satisfaction of the creative nature of man</i> |
| <i>Reforms in the social, political and economic spheres</i>    | <i>Evolution of sculpture</i>                     |
| <i>Contact between Greece and Egypt</i>                         | <i>Plethora of statues in Greek sanctuaries</i>   |
| <i>Sculptural works based on the same model for a long time</i> | <i>Aesthetic criteria</i>                         |
| <i>Further development of the Egyptian model by the Greeks</i>  | <i>Evolution of sculpture</i>                     |
| <i>Honouring of gods</i>  | <i>Values of that period</i>                      |
| <i>Honouring the dead</i>                                       | <i>Values of that period</i>                      |

**Table 7.** Causes and consequences.

This answer exemplifies both historical knowledge and interpretative reasoning. In trying to frame the causes and consequences for the two Archaic-era sculptures, reasoning leads to historical explanations as students begin to understand that the causes arise from interrelated events, situations, and processes. They do this by articulating the causes and consequences of the development of this particular trend in sculpture during the Archaic period. They refer to more general socio-cultural changes over time, to cultural imports from Egypt, to the search for new expressive means, to the need for art to reconcile with the worldview of that particular society. Students create their own criteria for the causes and consequences of their historical knowledge.

Five pupils tried to focus on historical perspective, studying a prehistoric dagger, through a creating writing activity (*Write a letter/page of a diary based on the study of the sources you have already investigated*). The following diary page belongs to an imaginary prehistoric warrior:

*“A warrior’s diary page*

*August, 2 days after the battle,*

*It’s been two whole days, but I still cannot overcome terror and panic. Every night in my sleep, I see my friends and compatriots fall in battle until I myself too fall and then*

*wake up. Even if our troops overwhelmed and smashed our enemies, I would not call this battle a victory. I was lucky I managed to defend myself with my dagger, but many other lives were lost. Unfortunately, this dagger was lost in the battlefield, and it meant a lot to me. My father chose to give it to me rather than take it with him to the next life. For me, it was not just a weapon; I was attached to it since, from an early age, it constantly reminded me of him and gave me the hoe that one day, by using it, I would make him proud. So, I hope that battle I gave was enough to make my father proud and to look worthy in the eyes of the gods. But I was very sorry for my lost weapon and my lost compatriots. Soldiers should not mourn but offer honours to those who become heroes by falling in the battlefield. This was not the last battle of my life and I must be ready for the next, as the threat may have been limited but is certainly not gone. So tomorrow morning, I will ask for a new dagger like the one my idol, the legendary Achilles in the battle of Troy, had.”*

The text begins with the recording of human anguish on the diary page of a prehistoric warrior. Evident are the use and significance of the object, as well as the values of that time: the pride of the parent for his warrior-son and the values governing the relations between co-warriors. The writing team consisted of five boys. This creative writing confirms the research findings (Kouser, 2015) that gender significantly influences pupils’ choices, attitudes and thought patterns. It was the first time that pupils tried to write a story and this was actually done in the history lesson.

## **Exploring the Past through Material Remains**

### ***So, ‘What Does Historical Enquiry Mean Exploiting Material Remains of the Past in My Everyday Lesson?’***

By making pupils part of the investigative process and not setting them against it, I have encouraged them to perceive, through graded activities, to perform new linguistic and productive interpretations. The activities and techniques applied in educational intervention showed a way in which young people can break free from stereotypical perceptions and perceive history as something ‘alive’, something that can be linked to their own reality and include meanings produced with their own participation.

Taking into account the results obtained from this particular educational case study, we may conclude that the dialectic way of investigating the past, that is, through exploratory questions – here linked to the *second-degree concepts* proposed within the framework of the disciplinary approach (Seixas, 2006) – constitutes an essential process of expressing historical thinking within both the school and the museum environment. So historical enquiry by exploiting

material remains of the past in my everyday lesson means that pupils are better able to use the conceptual tools of historical thinking and are guided towards a deeper understanding.

### ***Now, 'What Form Does Historical Enquiry Take? (Tools and Activities)'***

The enquiry question aimed at grasping the pupils' interest and posing an evidential problem; this means that the whole enquiry elevated the museum and classroom investigation, analysis, interpretation and discussion into a research proper. It is obvious that the tools used were befitting this case study: the pupils' texts mainly focused on the *concepts of historical evidence, historical significance, continuity and change, cause and consequence and historical perspective*. Nonetheless, there were no answers regarding the moral dimension of historical interpretations, obviously because the wording of the question in that case wasn't suitable. All in all, the specific historical enquiry seems to be affected by:

- the tools that were used; the historical character of the questions; the wording of the questions; the pupils in the sample who expressed interpretive reflections in history-oriented type of questions; the type of material remains studied. In both my thesis and in this case study, it was observed that the study of material remains that made reference to the human form (statues of *Phrasikleia* and *Volomandra*) or to a social relationship/situation (tombstone of *Aristion*), enhanced the expression of *interpretive historical thinking*. Apparently, the pupils were interested in the human aspect associated with these objects and, by extension, their historical context as well.
- the type of exercises/activities; the study of material remains of the past as physical objects in the museum incited pupils to become aware of their historicity and to express a form of historical thinking, even though they did not systematically have a similar educational experience at school. Observation, questioning, investigation, analysis, interpretation, reflection, and communication were the main activities that pupils got involved in.

The results outlined in this paper can compare to those in similar studies concerning the expression of historical thinking/historical awareness in relation to the study of material residues (Kriekouki-Nakou, 1996; Seixas & Clark, 2004; Jones, 2011; Wallace-Casey, 2017).

### ***And Finally, 'How Is Historical Enquiry Understood in Different Environments?'***

Through engagement in research at the museum and at school as well as frequent contact with primary and secondary sources, pupils had the opportunity

to express their own interpretations and to realize that historical interpretations often diverge: material remains are each time reframed by different questions and different sources, thus creating different ‘stories’. Current trends in the field of historical education foreground the potentiality of different narratives that students themselves can construct based on the use of historical sources as historical testimonies (Lee, 2011). According to Shemilt (2011), alternative narratives are what constitutes historical thinking.

The study of material remains as physical objects appeared to trigger the expression of *interpretive historical thinking* more readily. The results suggested that materiality in relation to space and the experiential dimensions of enquiry resulted in an increase in knowledge amongst the students. The students involved in this historical enquiry used the natural object as a historical source and its materiality helped them: to collect primary information, to ask questions about its historical context, and observe the historical perspective of its revival in time. In particular, experiential connection with the past in the museum as in archaeological sites as well (Kouseri, 2018, p. 189) resulted in the triggering of a framework of cognitive understanding. In an informal environment, such as the museum, pupils were enabled to study the object by approaching it experientially, exploiting its materiality and contextualization in more favourable spatial and temporal circumstances. Then, they invited to reconstruct the historical context of these material remains by comparing them to other objects in the same space. This activity leads them to further research into the past on their school environment and gave them plenty opportunities to historically perceive and understand the historical context of the material remains being studied.

Similar results are mentioned in Hooper-Greenhill (2007) which reports that the museum space is an interesting, holistic, and enjoyable learning environment that can help students adopt an open and receptive look at new learning elements, improve their self-esteem and personal signposts. As Lowenthal (1985, p. 247) states, “*a past that lacks tangible residues seems too insignificant to be believed*”. The study of materials as natural objects in the museum environment emerges as an important parameter in this historical exploration of the past, not only because of the sources’ authenticity but mainly because of their materiality. In addition, museum visits as well as visits to historical and archaeological sites enrich students’ knowledge, also providing multisensory learning and experience that aids in historical understanding and historical empathy (Marcus, 2007, 2008). Seixas & Morton (2013) claim that not only the concept of historical sources but also the concept of significance can be successfully explored in the museum space.

## Concluding Remarks

Reflecting on the historical inquiry and the resulting material my ambition at the start was partly fulfilled, but I was also left with interesting problems to resolve, such as:

- I did not recommend rich written or multimodal resources for pupils to study in the classroom historical enquiry. I let them choose the sources on their own but provided them with instructions on how to effectively use information.
- It would have been better if the enquiry progressed along a long-term plan in which only one of the five second-order concepts would be tackled each time. Pupils needed the mediation of teaching to understand many aspects of *second-order concepts*. It would have been better to schedule a wider planning about which *second-order concept* to focus upon.
- I did not manage to have the right wording in all enquiry questions, especially the one which covered 'ethical dimension of interpretations' of the past.
- I did not take into consideration the different learning styles or varying abilities of my pupils.

My research findings had several implications for my future practice of investigating the past through the exploitation of material remains in relation to second-order historical concepts. Our history curriculum in the Greek educational system is only just starting to be structured on the use of enquiry questions embodying *second-order historical concepts* re-considering antiquity (Kasvikis & Kouseris, 2019). I would like to focus on an experiential dimension of the past and on the multiperspectivity in historical enquiry as a didactic experience.

The results suggested that materiality in relation to space and the experiential dimensions of the historical enquiry resulted in the triggering of a framework of cognitive understanding and expression of historical thinking about the past. In addition, historical exploration in two educational settings, the school and the museum, seems to create scaffolding in pupils' historical understanding and expression of historical thinking. The multiplicity of museum objects, reinforced by the multiplicity of written historical sources they explored, led to readings and transformations characterized by originality. So, "What 'remains' of the past?" Today's museum, let alone today's school, needs approaches that cultivates historical thinking through historical enquiry.

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## Appendices

### *Appendix 1. Material Remains that Pupils Used to Investigate the Past.*



**Figure 1.** The Phrasikleia Kore (540 BC).



**Figure 2.** The Volomandra Kouros (550 BC).



**Figure 3.** Ariston Column (510-550 BC).



**Figure 4.** The Mycenaean dagger of the Late Helladic period I (16th century BC, Tomb IV in the burial precinct A at Mycenae).



**Figure 5.** The golden earrings of the Late Helladic period I (16th century BC, Grave III, enclosure A).

All figures (1-5) are published with the permission of the National Archaeological Museum in Athens (<https://www.namuseum.gr/en/>).

## **Appendix 2. Worksheet: Instructions for the Basic Categories of Historical Evidence.**

Historical sources/ The basic categories

A. **Primary:** Sources derived from the particular period under study or research of the past. Archaeological finds, coins, inscriptions, memoirs, photographs, letterheads, meeting minutes, letters, etc., belong to this first group.

B. **Secondary:** The second category comprises all historical sources that make up a historical phenomenon, a historical period, a historical theme, based on primary sources. Most historical textbooks are secondary sources as well as literary and/or historical works of art. Generally, everything that is created simultaneously with the phenomenon to which it refers is primary, and that which is created after this phenomenon is secondary evidence. (Repoussi, 2004, p. 311)

The species:

- objects (art and everyday life)
- electronic resources (internet, multimedia applications)
- audio documents (songs, radio broadcasts, political reasons)
- visual documents (photos, artwork in the form of pictures, cartoons and generally everything that comes to the classroom in the form of images)
- audiovisual documents (film and television)
- landscape sources (landscape, buildings, monuments, museums)
- oral testimonials (personal narratives arising from interviews or free narratives)
- charts (censuses, electoral lists, rows of documents with quantities)
- maps (historical, political, topographic, commercial, nautical, geophysical, rural) (Repoussi, 2004, pp. 312-328)

## **Appendix 3. Worksheet: Instructions for Using the Wiki and Posting Tasks.**

Create a wiki “mydigitalmuseum” environment on the pbwork platform

How to post:

1. Create a page with your group: create a page – give a title – edit – type – save and edit the page.
2. Load the files that are already stored in a computer folder by clicking Images and files, and upload the file from the PC with the upload files command.
3. Link pages to wiki contents by choosing to create your own page and link it to the home page.  
Put the page in edit state while the Insert links command appears on the right. Below the Pages tab, all the titles of the created pages are displayed. Place the cursor at the point where you want the link to appear, then select the page from the right column.
4. Submit comments on each page in the added comment field.

## **PART 3**

### **ARCHAEOLOGY IN HISTORY TEXTBOOKS AND CURRICULA**

**THE PRESENTATION OF ARCHAEOLOGICAL SCIENCE  
IN THE HISTORY TEXTBOOKS IN LITHUANIA IN THE XX-XXI CENTURY**  
(Benediktas Šetkus)

**HISTORY LESSONS THROUGH ARCHAEOLOGY IN ZIMBABWEAN  
SCHOOL HISTORY TEXTBOOKS – FROM INDEPENDENCE ONWARDS**  
(Bronwyn Plescia, Johan Wassermann, Denise Bentrovato)

**EXPLORING THE ROLE OF ARCHAEOLOGY  
IN DUTCH SECONDARY SCHOOL HISTORY TEXTBOOKS**  
(Tim Huijgen, Marjan de Groot-Reuvekamp)

**IMPORTANCE OF ARCHAEOLOGICAL SOURCES  
IN INTRODUCTORY CHAPTER OF HISTORY TEXTBOOKS  
FOR ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA**  
(Danijela Trškan)

**CONSTRUCTING ARCHAEOLOGY AS A SUBJECT  
IN THE SCHOOL CURRICULUM**  
(Louise Zarmati)

**ROLE OF MATERIAL SOURCES (WITH EMPHASIS  
ON ARCHAEOLOGICAL SOURCES) IN HISTORY CURRICULA  
OF ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA**  
(Danijela Trškan)



## THE PRESENTATION OF ARCHAEOLOGICAL SCIENCE IN THE HISTORY TEXTBOOKS IN LITHUANIA IN THE XX-XXI CENTURY

### Abstract

The paper provides an overview of how archaeological science is presented in history textbooks used in Lithuania. The author examines history textbooks from three different periods of Lithuanian history: The Republic of Lithuania (1918-1940), Soviet Lithuania (1940-1941; 1944-1990) and The Restored Republic of Lithuania (since 1990). The findings indicate that Lithuanian history textbooks used at the beginning of the 20th century did not include information of the science of archaeology. Little attention was given to the prehistoric period. Only in middle of 1930s archaeological science became popular in Lithuania, therefore archaeology began to be taught and history textbooks were written. The history textbooks of Soviet Lithuania focused more on prehistory and archaeological science discoveries than previously written textbooks. At the end of the 20th century, textbooks on archaeology contained significantly more information than previous period textbooks. During the last period (since 1990) modern textbooks provide even more knowledge of the science of archaeology. The textbooks have changed as they now contain many sources of history and various tasks to examine these sources. The dissemination of archaeological science in history textbooks depends mainly on the personal position of the author.

**KEY WORDS:** LITHUANIA, ARCHAEOLOGY, HISTORY, SCHOOL, TEXTBOOK.

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## THE PRESENTATION OF ARCHAEOLOGICAL SCIENCE IN THE HISTORY TEXTBOOKS IN LITHUANIA IN THE XX-XXI CENTURY

### Introduction

The role of archaeology science in Lithuanian society has changed somewhat during the last two decades. In the past, archaeologists were often thought to be excavating to reveal the life of prehistoric or medieval people. At present, however, archaeologists in Lithuania are investigating the graves of relatively recently buried people. One such case was in 2003. During the construction in Vilnius, the tomb of about 3000 Napoleonic soldiers was found. The soldiers froze and starved to death in 1812, whilst retreating from the Russian advance. Archaeologists' research was published by the world's most famous television companies in the United States and Britain, including the French press. Later, the remains of Napoleon's army soldiers were interred in the main cemetery in Vilnius (Baltic News Service, 2003).

In addition, the research of archaeologists in Lithuania, in the territory of the former Tuskulėnai manor (Vilnius city), was found to have great repercussions. It was related with the studies of 724 anti-Soviet armed resistance fighters and their commanders, prominent clergy, and others, who were all killed there in 1944-1947. There is a columbarium-chapel and a museum, which is visited by tourists from all over the world (The Memorial Complex, 2020).

Another example was in 2008, the Parliament of the Republic of Lithuania adopted a resolution to find the remains of one of the most famous anti-Soviet resistance commanders: Adolfas Ramanauskas-Vanagas. For several years historians and archaeologists have been working until they found the place where the Soviet executioners secretly buried him (Genocid.lt, 2020). The remains of the commander were honorably reburied on 6th October 2018, and the highest Lithuanian officials participated in the funeral ceremony. It should be noted that in recent years archaeologists have carried out dozens of studies in various parts of Lithuania, associated with the bunkers of anti-Soviet resistance participants and their burial places.

In addition, society is interested in other topics related to archeology. For example, since the beginning of the 20th century, there was an ongoing search for a location, where in 1336 Lithuanians defended themselves against the German order and heroically died. It is known that about 4000 Lithuanians locked themselves in a wooden castle called Pilėnai. Seeing that they could not defend themselves from the enemy, the men killed their families, and then committed suicide themselves and burned the castle and all the wealth that existed in it (Visuotinė lietuvių enciklopedija,



2010). In the last few years, archaeologists have carried out excavations in several areas of Lithuania and made several versions, where this may have happened. A number of the local authorities would want the location to be found in their region as this would become a popular tourist attraction.

Archaeological research in history textbooks is most often presented in topics that are associated with the prehistory period and in some cases are associated with the medieval period. In this study, we sought to clarify the role of archaeological science in imparting knowledge of the prehistoric period and the period of ancient civilizations. The purpose of the study is to reveal the presentation of archaeological science in the history textbooks which were used in Lithuania after the First World War, then in Soviet-occupied Lithuania and after 1990 (since the restoration of Lithuanian independence). Due to the limited scope of the study, each period with three textbooks was reviewed. The aim was to investigate how the archaeological science achievements are reflected in the text written by authors in the textbook, illustrations and other textual sources, as well as how many questions or tasks are associated with archaeological science. The selection of textbooks was guided by the chronological principle: three textbooks for the beginning, three most used textbooks, and three for the end of each period.

## **Archaeological Topics in Lithuanian History Textbooks in 1918-1940**

After the First World War, Lithuania became an independent state and, until the Soviet occupation of 1940, the Lithuanians handled their own educational needs. At that time, educational programmes were established, including history programme which identified the content of history teaching in Lithuanian schools. From them we can see how much attention was devoted at the time to the history of the world and Lithuania, including the prehistory and archaeology.

The 1920s history curriculum provided for the prehistory to be taught in the secondary schools in the first year (topics: “The importance of the popular history of science and the interpretation of the appearance. Development of humanity up to the point of the creation of the State”) and in the fifth year (topics: “The sources of history. Development of historical science. Prehistoric Times”) (Istorijos Programa, 1920, cited in Šetkus et al., 2006, pp. 174-175). Regarding the overall scope of the programme, it can be concluded that little attention was paid to the prehistory, with only about one percent of the text in the program.

In 1931, the history programme nearly doubled, thus a broader census was made of what students need to know about prehistory. In the first year, students were to be made aware of the lives of people in the world in antiquity, with ancient Lithuanian

farming, livestock rearing, fishing, hunting and beekeeping, ancient people's religion, castles and hillforts (Hillforts are included as archaeological monuments – B. Š.). In the fifth year, the programme provided the following topics: “History and prehistory. Stone Age. People's life in the Stone Age. Bronze Age” (Istorijos programa, 1931, cited in Šetkus et al., 2006, pp. 182 & 184).

In 1939, the high school history programme of prehistory was intended to be taught in the first year (topics: “The life of the ancient people. Stone and Metal Ages”) and fourth year (topics: “History science and its sources. Stone, bronze and iron ages. Life and culture of the people of the time”), and in the fifth year (topics: “The culture of the prehistoric Lithuanian region, ancient Aesti religion, economic and social order”). In this programme, approximately three percent of the volume was devoted to prehistory topics (Istorijos programa, 1939, cited in Šetkus et al., 2006, pp. 197, 199 & 201).

After the First World War, Lithuanian schools used textbooks published in the period of the Russian Empire. The students learned from the textbook “Lietuvos Istorija” (“History of Lithuania”) published in 1886. Textbook by Konstancija Skirmuntaitė from 1887 was used by Lithuanian schools in the United States of America, in 1901 was translated into French, and Lithuanian edition was published in 1912 (Butkuvienė, 2008). In this textbook it was written about the prehistory of Lithuania and neighboring countries (approximately 10 percent of the text was allocated to it). No knowledge is provided concerning archaeology or the findings of archaeology (Pajauta, 1912).

Schools of Independent Lithuania were using for some time “Lietuvos Istorija” (“History of Lithuania”) which was published in 1912 and was dedicated to students in the primary school. The book is small with only 90 pages, with only nine pages devoted to the Lithuanian prehistory. The life of people in ancient times was described in very abstractly and did not include any discoveries attributable to archaeological science (Pranas, 1922).

During the 3rd and 4th decades of the 20th century, in Lithuania, there was a breaking point in the area of archaeology: the archaeological excavations started, the first book on Lithuanian archaeology was published, archaeologists began to be educated from 1936 at the Vytautas Magnus University, and in 1938 the Vytautas Magnus Museum opened the exposition of the prehistory, in which the finds of archaeologists were exhibited (Visuotinė lietuvių enciklopedija, 2001).

The flourishing of archaeological science in Lithuania influenced the content of history teaching. When in 1936, five Lithuanian historians (edited by Adolfas Šapoka) published the textbook “Lietuvos Istorija” (“History of Lithuania”) for gymnasiums, the students and others interested in the history of the state, were able to learn, for the first time, the prehistory of Lithuania and learn about archaeological science. The textbook consisted of 688 pages. In the introductory part of the textbook (ten

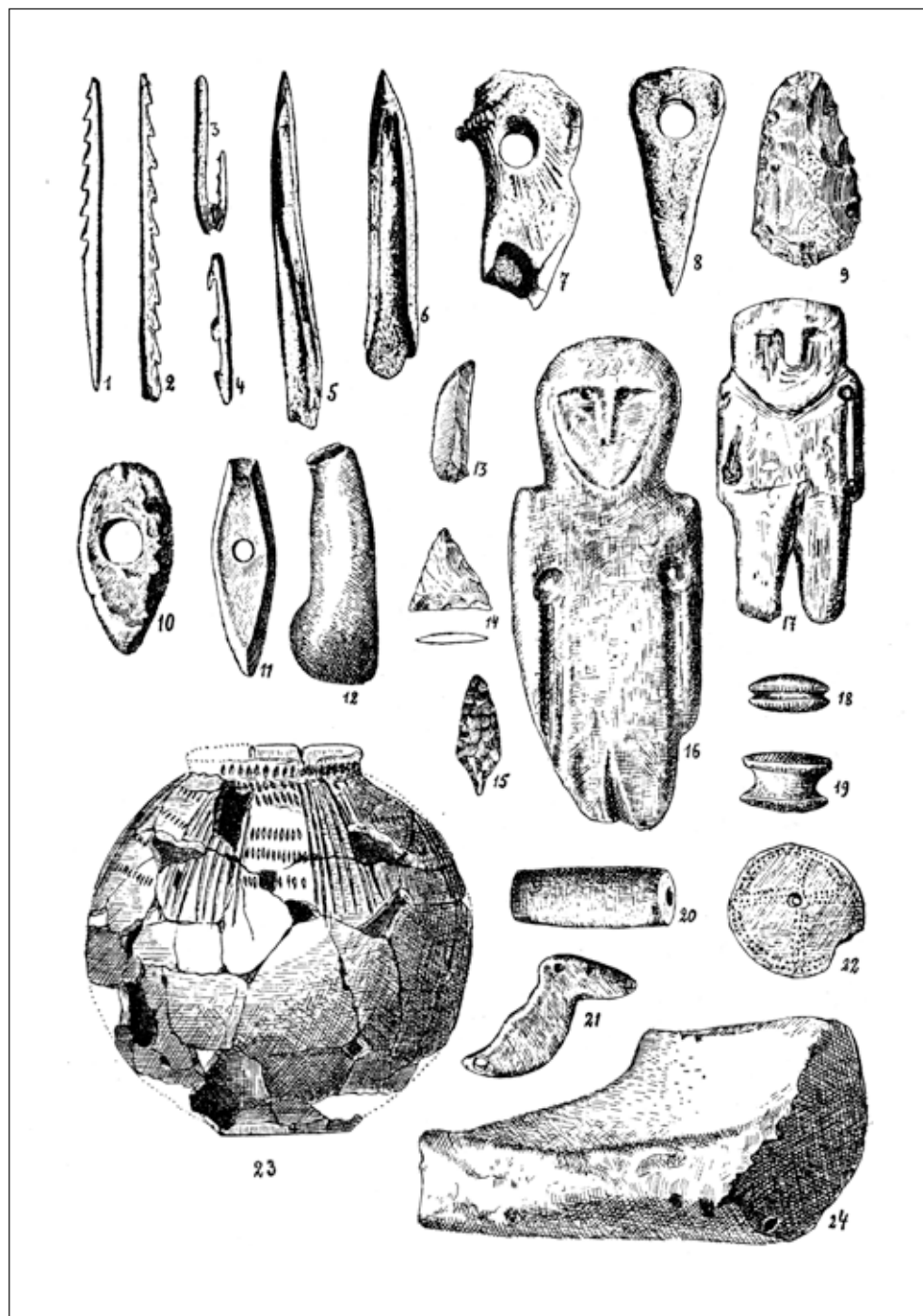
pages), it was briefly written about the importance of the history of the nation and explained in detail the sources of history – written (chronicles, yearbooks, papers, letters, memoirs, newspapers, diaries, etc.), spiritual cultures (language and folklore) and material culture (human objects, weapons, buildings, graves, etc.). In describing the sources of material culture, it was noted: *“All these things are studied by a special science of antiquities, which is called archaeology. Archaeological finds (excavations) show how a person has once live, fought their enemies, with which countries trade and other kinds of relations were formed; the way of burial, the installation of graves and the objects found in them show the views of the human person concerning the after-life. In this way, the archaeological remains are complemented by historical knowledge found in the written sources”* (Šapoka, 1936, p. 3).

It should be noted that the textbook “History of Lithuania”, published in 1936, introduced the most important Lithuanian institutions, where written documents and archives of other States (Russian, Polish, and Vatican) were stored. The most important museums, where written sources and objects of archaeologists were stored, were also listed. The evolution of history science in Lithuania was also introduced (Šapoka, 1936, pp. 4-10).

Around two percent of the textbook content was devoted to the Lithuanian prehistory. For example, when writing about the life of the inhabitants of the Middle Stone Age (Mesolithic) on the river or lake shores, it was noted that *“in such places the traces of their former camps with characteristic flint, bone and horn tools were found”* (Šapoka, 1936, p. 13). When writing about the Iron Age in Lithuania and the Iron crafts of that period, it was noted that *“from this period we have many graves, which show not only the material culture of our ancestors, but also the faith of life after death”* (Šapoka, 1936, pp. 17-18).

This textbook showed for the first-time drawings depicting archaeological finds. The pupils were presented with 24 drawings that depict how stone-age products from bone, flint, stone, amber and ceramics looked like. Pupils were also given 31 drawings show the Bronze Age products: axes, swords, javelin tips, ornaments, and statuettes. The products of the Stone Age are depicted in 16 drawings, these are axes, javelin bits, and bracelets. In the textbook, two photographs are added: the axe of the Neolithic period together with its handle and a barrow uncovered during archaeological excavations. There is also a drawing depicting a scheme of a burial site, who has been buried in the I-II century AD, and lists the objects found in the graves.

The textbook was also unique in one more aspect. The authors showed students how written sources were complemented by the discoveries of the archaeologists. They compared the facts mentioned by the Roman historian Tacitus (1st century) in his written piece “Germania” with the findings of Lithuanian archaeologists (Šapoka, 1936, p. 18).



**Figure 1.** Illustration of textbook "Stone age tools of Lithuania" (Šapoka, 1936, p. 14).

| Textbook and year of publishing / year of published article          | Pajauta, Trumpai išpasakota Lietuvos istorija (1886/1912) | Prano, Lietuvos istorija: vadovėlis pradžios mokykloms (1912/1922) | Šapoka A. (ed.) Lietuvos istorija (1936) |
|--|---|--|--|
| Total number of pages / pages dedicated to pre-history               | 170/17  | 90/9   | 688/32                                   |
| Whether the word archaeology or its sources are mentioned            | –   | –  | +  |
| The usage of archaeology is shown by the author                      | –   | –  | +  |
| Number of illustrations on the topic archaeology and its categories: |   |  |  |
| – Archaeological artefacts   | –   | –  | 72                                       |
| – Archaeological reconstructions                                     | –   | –  | 2  |
| – Archaeological sites   | –   | –  | 2  |
| – Archaeological excavations   | –   | –  | 1  |
| Number of additional texts on archaeology                            | –   | –  | –  |
| Number of questions/tasks related to archaeology                     | –   | –  | –  |

**Table 1.** Archaeological science presentation in history textbooks used in Lithuania in 1918-1940.

To summarise the review, we can conclude that during the 1918-1940 period Lithuanian schools began to introduce students to archaeological science and research conducted by archaeologists. An essential breaking point occurred in the middle of 4th decade of the 20th century when archaeological science in Lithuania flourished and became widely known in the society.

## Archaeological Topics in the Soviet Lithuanian History Textbooks in 1945-1990

In Soviet-occupied Lithuania, the content of history education was regulated by Moscow's government officials. Students had to study three courses of history: The History of the Soviet Union (in fact, the history of Russia), the World History and the History of Lithuania. Because the content of history education was overly broad, students were exposed to the topic only once. For example, ancient history was taught only in the fifth year, and the Second World War – only in the 11th year.

During the Soviet period, the history curriculum has been enhanced and developed only a little. As a result, we limit ourselves to one history programme, which was published in 1975. Using this example, it is possible to understand how much attention was given to the prehistory by Soviet Lithuanian schools. The history of the world ancient period was taught in the fifth year. Two lessons were devoted to explaining “What history explores, from where we learn about the past, how the passage of time is accounted for in history.” Five lessons were devoted to the topic “The life of the ancient People” (Istorijos programa, 1975, p. 36).

Lithuania and the Soviet Union both began teaching history in the seventh year of school. Three lessons were devoted to the topic “ancient community and the societal structure in the territory of our country”, one lesson – “Slavery south of our country” (Urartu, Scythians, Greek colonies on the Black Sea), one lesson – “Eastern Slavs of Antiquity”, one lesson on “The ancient community structure in the territory of Lithuania”. Another topic was “Our place of residence in a deep antiquity”, during which teachers had to familiarize the students with the history of the present location of settlement (Istorijos programa, 1975, p. 47). All the above topics were based on studies conducted by archaeologists.

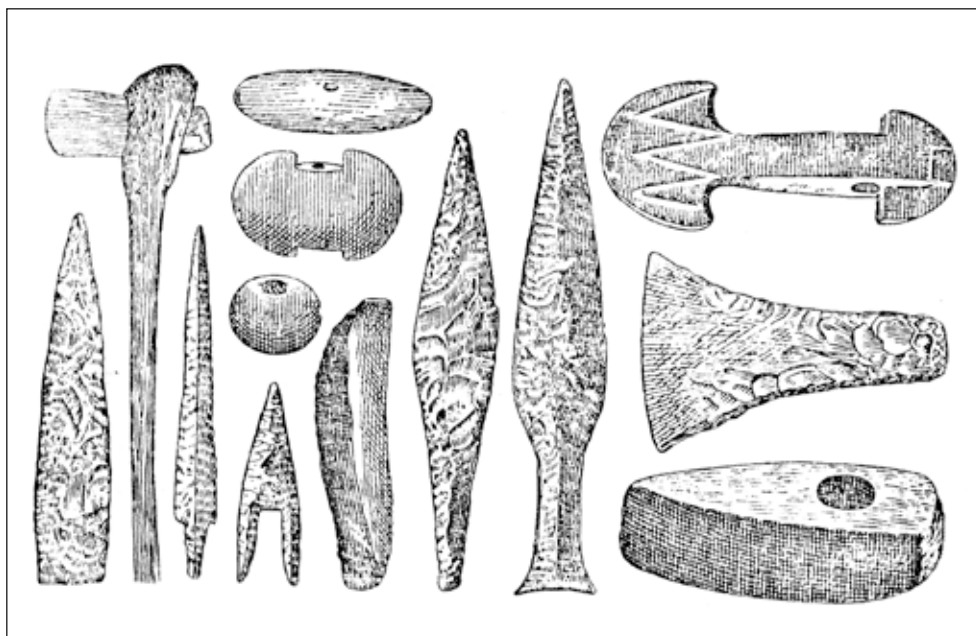
The achievements of archaeological science were used as a basis whilst also teaching the other topics of history, such as “The emergence of class structure and the creation of the state in Eastern Slavic countries VIII-IX century”, “The emergence and strengthening of feudal relations. The creation of the state of Lithuania”, “The place of our residence in the XIII-XIV century” (Istorijos programa, 1975, pp. 47-48).

After a brief overview of the history teaching content about the prehistory of the world, the prehistory of the Soviet Union (Russia) and Lithuania, we will proceed to the analysis of several history textbooks. After World War II in Lithuania, a textbook “Senovės Istorija” (“Ancient History”) was used, which was published in Moscow in Russian language during 1940 by Aleksandr Mišulin, it was later translated into Lithuanian. The first two topics in the textbook were devoted to the prehistory of mankind (ancient community structure, the emergence of class-structure and state), and explained the science of history-historical monuments, time accounting and the historical science.

In the author’s text on historical monuments, it was noted that knowledge of ancient states was given by historical monuments – both material and written. It was defined that the material monuments were “*the remains of various ancient buildings, surviving household items, ancient work tools, metal currency, etc.*” (Mišulin, 1946, p. 8). The written monuments were “*provided us with ancient records on stones, in the walls of sanctuaries, in clay tablets, and also in the scriptures of various ancient writers.*” After that, the authors wrote: “*Many past monuments are found during excavations. Science, of which the task is to search for such monuments and explore them, is called archaeology*” (Mišulin, 1946, p. 8). The authors referred to several museums and archives, which were in Moscow and Leningrad, where the material and written sources were stored. At the end of the chapter, the authors of the textbook explained why we needed to learn from history: “*Knowing the history helps us understand why socialism is to reign throughout the world*” (Mišulin, 1946, p. 10).

The life of the ancient people topic was illustrated by three flint tools, twelve New Stone Age tools from stone, bone and bronze, and the image of the bison from

the Paleolithic times. Two reconstructions depicting mammoth hunting and the encampment of ancient people (Mišulin, 1946, pp. 3-76) were also presented.

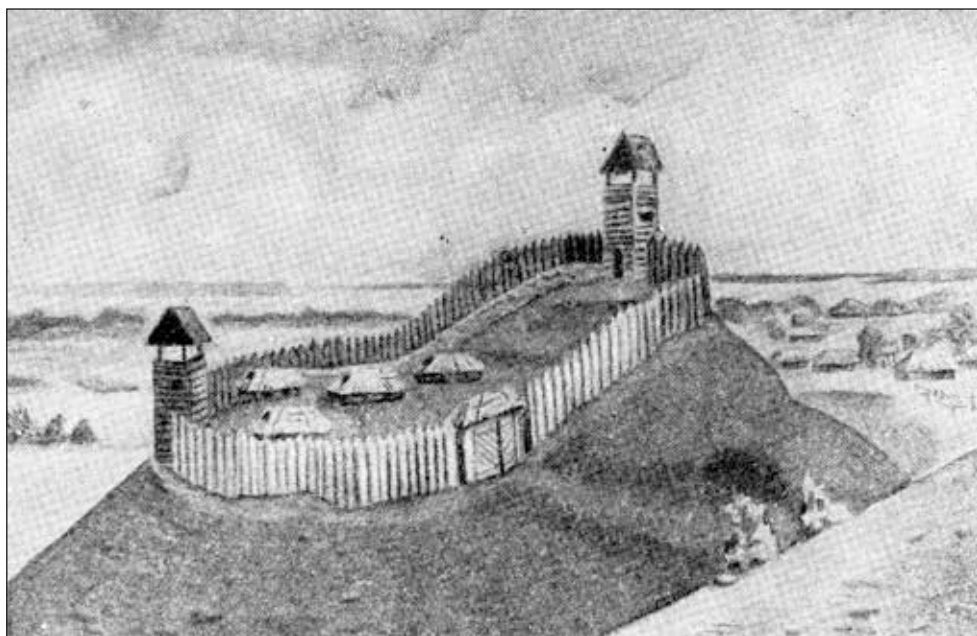


**Figure 2.** Illustration of textbook “New Stone Age tools” (Mišulin, 1946, p. 5).

In the other chapters of the textbook, there was a constant mention of the discoveries of archaeologists. For example, when writing about ancient Egypt, it was noted that “*in various places of the Nile Valley, scientists dug up the remnants of the dwellings of the oldest inhabitants of Egypt*” (Mišulin, 1946, p. 13), in the topic about the Egyptian war with Hittites was noted that “*about the Hittites we learned recently, from the excavations of about 30 years ago [...] The imagery of the Hittite life was restored from these monuments*” (Mišulin, 1946, p. 29), when writing about ancient India, it was noted that “*making archaeological excavations in the southern part of the Indo Valley Found revealed ruins ancient of stone and brick buildings [...]. Archaeological findings indicate that the Dravidians have been found to be the first civilized nation of the Indus Valley. They had quite technologically advanced and have accumulated quite much wealth from slaves*” (Mišulin, 1946, p. 56). The history of ancient China was also associated with the studies of archaeologists: “*about the oldest period in China, we have found many written accounts within Chinese annals, and many archaeological monuments that have been found in the excavations. Only when exploring those monuments, the oldest periods of Chinese history begin to be clarified*” (Mišulin, 1946, p. 65). So, the authors of the textbook constantly remind students of the research conducted by archaeologists.

As the history of Lithuania was taught in Soviet Lithuania, history textbooks were published for this curriculum. They were different in volume since the 1960s as the Lithuanian history was given little lessons, however since the 1980s the number of lessons were increased. Therefore, there was one Lithuanian history textbook at first, and then two textbooks were published, one for the years 7-9 and the other for years 10-11.

For our study, we chose the first published textbook “Lietuvos Istorija” (“History of Lithuania”) of the Soviet period, which was published in 1958 by the most famous academic of Soviet Lithuania historian Juozas Jurginis. Three topics (lessons) are devoted to the Lithuanian Prehistoric period; in total the textbook had 33 topics. Although it was written indirectly about the archaeological science, Jurginis’ textbook did not, however, mention it explicitly. For example, in the first topic “Settlement of the first people”, it was written that concerning the settlement of the first people in the territory of the current Lithuania “*we decide from the traces of their lives, which clearly differ from the traces of animals*” (Jurginis, 1958, p. 3). In another part of the textbook it was mentioned that “*mostly the bone and the horn tools were found, which were used for fishing and hunting, and that have fallen into the lakes – which became peat bogs. Therefore, they are most often found in peat bogs*” (Jurginis, 1958, p. 4).



**Figure 3.** Illustration of textbook “Lithuanian settlement in the hillfortress” (Jurginis, 1958, p. 7).



In the topic “The most ancient human society” the subject of the production of amber jewelry (around 3000 BC) was mentioned, where it is remarked that *“such works of amber have been found in Palanga and Juodkrantė”* (Jurginis, 1958, p. 5). With a few sentences, the students were acquainted with the two most prevalent Lithuanian archaeological monuments – hillforts and barrows. The author drew attention to the fact that there was an abundance of both (Jurginis, 1958, p. 7). In another part of the textbook, the author wrote: *“from remains found in the ground of the tools, camps, and homesteads, we cannot decide what language the oldest inhabitants of Lithuania spoke and how their land was referred to by the peoples of other lands”* (Jurginis, 1958, p. 7). With the latter statement, the author implied to the students that not everything could be determined by the findings of excavations, even though, he did not use the term archaeology. The textbook contained several drawings depicting the bronze tips of the ant, a woman’s jewelry piece, swords, as well as the photographs of two hillforts.

It can be concluded that at that time, the archaeological topic of the history textbooks depended on the perspective of the authors. When the textbook “Lietuvos TSR Istorija” (“History of Soviet Lithuania”) was published in 1962 by Aleksandra Berlinskienė, Aldona Gaigalaitė, Juozas Jurginis and Zenonas Pilkauskas only four pages were dedicated to prehistory – even less than before. It should be noted, however, the first sentences of the textbook mentioned the significance of the archaeological science: *“On the settlement of the people in the territory of the Lithuanian SSR, we learn from archaeological monuments. Scientists surveying the traces of the oldest inhabitants-settlements and burial sites – discovered the work tools of people of those times. They were devoted to hunting and fishing and were also used as weapons. These tools were made of wood, flint, Stone and bone”* (Berlinskienė et al., 1962, p. 3). The textbook contains a separate paragraph describing the archaeological monuments prevalent in Lithuania – hillforts (Berlinskienė et al., 1962, p. 4). There is one question for the students, associated with hillforts: “How did the hillforts appear in Lithuania?”

It is important to highlight that hillforts are the best known and the most beautiful archaeological monuments in Lithuania. The Lithuanian hillforts represent just a small part of the gigantic assemblage of prehistoric fortifications, which were widespread in the forest and forest – steppe zone all over Europe in the prehistoric and early historic times. In Lithuania, the earliest hillforts date from the 1st millennium BC. They can be found in both Eastern and Western Lithuania. The earliest East Lithuanian hillforts belong to the Brushed Pottery culture, which existed from the turn of the 2nd – 1st millennium BC until the 2nd century. The golden age of Lithuanian hillforts was the 13th century – beginning of the 15th century. That was the time of continuous fights against the Order. The names of mostly wooden castles on hillforts of this period were mentioned in the written sources. The 13th century hillforts were less known. Their characteristic features were feeble fortifications and

unlevelled hilltops. The fortifications of the 14th century hillforts are really powerful. Ramparts were constructed of rammed daub and reached 5–7 m in height, while ditches dug behind them were 6–10 m deep (Zabiela, 2020).

At the end of the Soviet period and after independence, Lithuanian schools used the 1988 textbook by Fedor Korovkins “Senovės Istorija” (“Ancient History”), published in Moscow. Textbook, published in the Lithuanian language in 1990, was more in-depth, it contained colorful illustrations, but they were of poor quality.

In the introduction part of the textbook, students were familiarised with the ancient history. They were taught from where we can learn about the lives of people in antiquity. It was written that the bones of people, graves, remnants of dwelling buildings, statuettes, etc., were preserved from ancient times. The author obviously emphasised the significance of the archaeological science: “*Scientists say, ‘show us the bones of the ancient man, and we will tell you what he was like. Show the properties, and we will tell you what his trade was and what he was capable of.’*” (Korovkin, 1990, p. 6).

Perhaps one of the most vivid extracts is this one: “*Finding the traces of the life of the ancient people is not easy. You’ve probably noticed that even in a few days’ things are covered by a thin layer of dust. And over thousands of years, ancient people’s properties and remains have been covered with a thick layer of earth, sand and dust; the grass and the trees grew up on it, villages and towns settled. Once you find places where there are ‘traces’ of people’s life, the scientists carry out excavations.*” (Korovkin, 1990, p. 7). Afterwards, the author explained the science of archaeology: “*The science that explores the lives of people according to material sources is called archeology, which means ‘science of antiquity’. Scientists who perform excavations and research the material sources are called archaeologists.*” (Korovkin, 1990, p. 7).

The introductory part describes the writings of ancient people, the small nations living in distant islands and hard-to-reach places, of which ethnographers decide a lot about the life of ancient people. For the first time there were questions to students about archeology: “What are some of the most important sources from which we learn about ancient history?”, “What is archaeology? What does this word mean in Lithuanian?”, “Have you ever heard and read about the work of archaeologists?” (Korovkin, 1990, p. 7). The pupils were also presented with a few illustrations: Paleolithic tools made from flint, stamped with the human foot imprint. The question posed was what can be learned from these historical sources (Korovkin, 1990, p. 6).

In the Korovkin’s textbook, there were six topics (lessons) which add up to 24 pages, which represented about one-tenth of the entire history textbook scope. This part of the textbook contained many illustrations depicting the work tools used by ancient people made from stone, bone and wood. There are 11 drawings-reconstructions,

which depict the everyday life of ancient people. The author, in his text, repeatedly emphasised the importance of archeology. For example, the archaeological excavations carried out in East Africa in 1931, which found the significance of human ancestral artefacts (Korovkin, 1990, p. 10). In another part of the book it was noted that *“the research of works of art found by archaeologists show that the ‘wise man’ was observant, able to see and convey the beauty of the animals, and his hand in stone and bone was plotting strong and precise lines”* (Korovkin, 1990, p. 20). On the same page it was added: *“Archaeologists have found many figures of the bone-carved woman. This shows that the woman, the mother, the custodian of fire, was very respected”* (Korovkin, 1990, p. 20).

Archaeological significance is often emphasised when revealing the history of ancient states. For example, in the topic of Mesopotamian nature and its ancient inhabitants, it was emphasised that ancient writings were written about cities and states that flourished here. However, until the 19th century, the scholars knew very little about Mesopotamian Antiquity. Only after the excavations started, it turned out that *“Shapeless Hills appeared in the place of old semi-ruined cities. Archaeologists have found fortress walls, sanctuaries, palace ruins, works of art and even ‘libraries’. In one of the burnt palaces, the library consisted of 30 thousand ‘books’. They did not burn because they were made of clay”* (Korovkin, 1990, p. 71).

The topic of the formation of states in Mesopotamia began with what archaeologists found during the research: *“About two thousand graves of the 3rd millennium BC were explored in Ur. Several tombs are clearly different from others. These are brick constructs of 4-5 rooms, built deep underground. In addition to the tomb ‘master’, dozens of servants, guards, horses, musicians are buried here: archaeologists believe that they have poisoned themselves during the burial. Many golden helmets, wreaths, daggers, necklaces with jewels, many other perfectly made items were placed in the tombs”* (Korovkin, 1990, p. 74). Fragmented knowledge of archaeologists is also presented in other topics about Mesopotamia: when writing about ancient Assyria, it was noted that *“the cruelty of the Assyrian kings is shown by the ruins of the palace, which were excavated by archaeologists”* (Korovkin, 1990, p. 80), writing about the city of Babylon it was noted that *“descriptions and excavations helped to recreate the image of the ancient city”* (Korovkin, 1990, p. 82).

The role of archaeology is emphasised in the theme about ancient India: *“Several decades ago, the ruins of brick buildings were found in the Indus Valley, deep in the ground. The excavations opened up the previously unknown period in Indian history. Archaeologists have unearthed cities established in the 3rd millennium BC. During the excavations, many bronze and gold items, weighing measures, records were found. However, the signs of the letter have not yet been guessed and the records have not been read”* (Korovkin, 1990, p. 88). The theme about ancient China was described by what archaeologists found in the tombs of the II millennium BC (Korovkin, 1990,

p. 96). The theme about the history of ancient Greece mentioned what archaeologists found when excavating the city of Mykonos on the Peloponnese Peninsula, which they found in Athens or other Greek cities (Korovkin, 1990, p. 112), and when writing about Troy it is noted that “*archaeology confirmed the ancient accounts of the Greek tribal marine march to Troy around 1200 BC*”. The questions for students were: “*From which sources do we learn about the history of the most ancient times of Greece?*” (Korovkin, 1990, p. 115).

The topic about the art and science of ancient Rome contained the additional text “Excavations of the city of Pompeii”. It tells of the city of Pompeii and the eruption of Vesuvius and what archaeologists found during the excavations: “*About two hundred years ago, excavations of Pompeii were started. Now a larger part of the city is being dug out of the ashes. Inside the house remained dishes, furniture, mosaic floors, and frescoes. The bodies of people and animals, some things crumbled, but in their place in hardened ashes remained emptiness. After filling that emptiness with gypsum, archaeologists receive exact replicas of the bodies and objects*” (Korovkin, 1990, p. 230).

The examples presented show that the Korovkin’s history textbook has, at least partially, focused on emphasising the archaeological science and its value.

| Textbook and year of publishing / year of published article          | Mišulin A. Senovės istorija: vidurinėms mokykloms (1940/1946) | Jurginis J. Lietuvos TSR istorija (1958) | Korovkin F. Senovės istorija (1988/1990) |
|--|---|--|--|
| Total number of pages / pages dedicated to pre-history               | 223/8   | 172/10                                   | 252/30                                   |
| Whether the word archaeology or its sources are mentioned            | +   | –  | +  |
| The usage of archaeology is shown by the author                      | +   | +  | +  |
| Number of illustrations on the topic archaeology and its categories: |   |  |  |
| – Archaeological artefacts   | 17  | 6  | 31                                       |
| – Archaeological reconstructions                                     | 2   | –  | 26                                       |
| – Archaeological sites   | –   | 2  | –  |
| – Archaeological excavations   | –   | –  | 1  |
| Number of additional texts on archaeology                            | –   | –  | 2  |
| Number of questions/tasks related to archaeology                     | –   | 1  | 6  |

**Table 2.** Archaeological science presentation in history textbooks used in Soviet Lithuania in 1945-1990.

It can be concluded from the above review that students were exposed to the science of archaeology in Soviet Lithuania. More attention to this science in history textbooks was given in the late 20th century because archaeologists have undertaken more research at the end of the 20th century.



**Figure 4.** Illustrations of textbook "Ruins and frescoes of Pompeii." (Korovkin, 1990, p. 230).

### **Archeological Topics in Lithuanian History Textbooks after 1990**

During the period 1990-2020, the history curriculum changed several times. However, between 1992 and 2020, the content of history teaching has changed only slightly. We will therefore refer to only one history programme, which was adopted in 2008 and will be in use until around 2022.

Since the introduction of the teaching of history in 1992, the ancient history was intended to be taught in the following years: several topics (lessons) were introduced in the fifth, sixth and eleventh years, and in the seventh year the whole school year

was dedicated to ancient history. Since 2011, the teaching of ancient history in 11th year has been reduced in order to decrease the overall number of topics of history and make it easier for students to learn. Therefore, we will briefly review the content of history teaching only in years 5-7.

In the fifth year there is an introductory course in Lithuanian history, covering the history of the state from ancient times to the present. The programme indicates that students need to understand what history is, why it is important to know it. It is necessary to introduce them to the historical sites of their village, town or city, the most important objects of the history and culture of their district or region. When learning about Lithuanian ancestors – Baltic tribes, they must gain an understanding of the business, religion and daily life of the inhabitants of ancient Lithuania (Bendrosios Programos, 2008, p. 946).

In the sixth year there is an introductory course in World History, covering the period from Antiquity to the beginning of the 21st century. Attention is focused only on the most important events of the past, showing their influence on later times (Bendrosios Programos, 2008, p. 947). Since the programme does not provide for the number of hours (lessons) to be given to individual topics, it is for the authors of the textbooks to decide how much attention should be paid to the period of ancient history. Usually this topic is given about 3-5 lessons.

The seventh year provides the introduction of the ancient history of Lithuania and the World. The programme introduces students with the emergence of people, explains the influence of nature on the lives of prehistoric people, introduces people's businesses, inventions, worldviews and everyday life. The second major topic is devoted to the civilizations of the Ancient East. Finally, the third major topic is for Antique civilization (Bendrosios programos, 2008, p. 958). There is no mention of archaeology in the programme. Therefore, the authors of the textbooks decide how many topics to include for the students and how much attention is dedicated to the science of archaeology.

Over the period from 1990, more than 10 Lithuanian history textbooks were published for the fifth year. We chose one of the largest publishers "Briedis" and their history textbook published in the 2000s. The textbook was the first published by this publisher for the fifth year, which was in large format and contained many colored illustrations and tasks.

The first topic "The Past in Our Lives" explains what history is. Four groups of historical sources are then briefly presented: human memory, written sources, archaeological finds and cultural monuments. Archaeological finds are presented as the most comprehensive sources of evidence of the past. It is mentioned that scientists, digging the earth *"layer by layer, detect many years of lost working tools, weapons,*

*abandoned cemeteries, towns and even villages, destroyed castles. On the seabed and even on land they find ships*" (Laužikas et al., 2000, p. 6). There is a photo where one of the authors of the textbook (he is an archaeologist) is portrayed in an archaeological excavation site with students. One of the questions posed to students is about cultural monuments in the pupils' place of residence (Laužikas et al., 2000, p. 7). Since hillforts are also mentioned among cultural monuments (they are archaeological monuments), this issue is therefore partly related to archaeology.



**Figure 5.** Illustration of textbook "An archaeological excavation." (Laužikas et al., 2000, p. 7).

Two other topics, "Our ancestors, the hunters" and "Baltic tribes", explain about the business, religion, formation of Baltic tribes which are the oldest inhabitants of the area of Lithuania. For each of the topic a large-format illustration depicting the lives of people in that period is dedicated. Smaller drawings and photos with prehistoric tools made of flint, bronze, stone and bronze and amber jewelry are also provided (Laužikas et al., 2000, pp. 8-9, 12-13).

Since Lithuania stands out from the surrounding lands because of its large number of hillforts, a separate topic "What were the hillforts needed for?" is dedicated. A large-format illustration in the center depicts a hillfort from 3,000 years ago. The hillfort had a small and wooden wall encircling a settlement. Several drawings and photos help children understand how the axes from the bronze looked at the time, what the burial places of the people looked like and the urns entombed in them

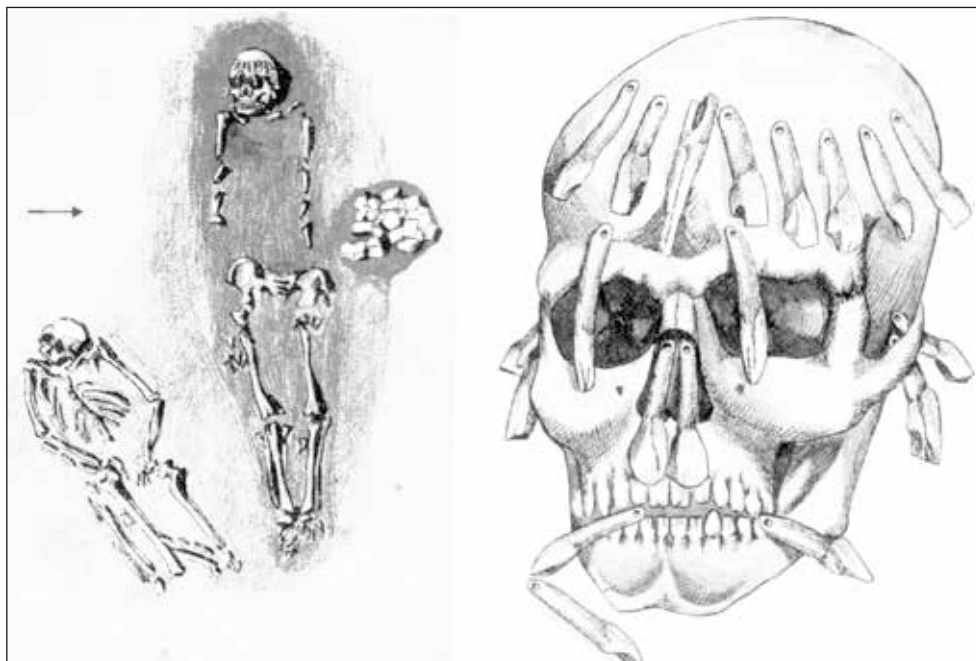
(Laužikas et al., 2000, pp. 10-11). There is also one task that requires fifth year students to tell what the difference between a hillfort and a barrow is (Laužikas et al., 2000, p. 11).

As mentioned above, the most extensive curriculum of ancient history is taught in the seventh year. After the adoption of a new history programme in 1992, in 1993 Lithuanian schools used a new history textbook “The History of Lithuania: From ancient times to the end of the 18th century”. The author of the textbook is archaeologist and then Vice-Rector of Vilnius University of Art Adomas Butrimas. Therefore, the question arises: does the textbook written by the archaeologist concentrate more on the science of archaeology?

It can be seen immediately that the prehistory of Lithuania receives more space in the book than in the previous history textbooks. There are 256 pages in total, and 63 pages are dedicated to prehistory, which is around 25 percent of the whole textbook. The first pages of the textbook do not contain information about the sources of history and do not mention the word “archaeology”, “archaeologist” or anything similar. Nevertheless, the author’s text contains clues about the discoveries of archaeological science. For example, when writing about the first inhabitants of Lithuania, it is stated that *“most of the first settlements of the Lithuanian population were found on the shores of the Merkys, Neris and Nemunas rivers”* (Butrimas, 1993, p. 4). The topic about the faith of the oldest inhabitants of Lithuania concerns with the ceremonial staves of the priests found and describes the discovered grave of a priest of 3000 years BC (the said grave was discovered by the author of the textbook Butrimas – comment by B. Š.). A detailed description of what the excavations found: *“A young priest is buried here, along with a female companion. She’s laid curled up, at the feet of the priest. The grave was covered with natural paint (ochre) that ancient Europeans painted during rituals (much like native Americans). An amulet necklace from drilled elk and aurochs’ teeth is placed on the head. The teeth of the beast covered his eyes, ears, were inserted deep into the nostrils and mouth of the nose- apparently the priest was powerful, so after his death was feared”* (Butrimas, 1993, p. 11).

Lithuania is often referred to as the land of amber due to amber found in the Baltic Sea. It is no coincidence that the textbook is widely written about amber products of the prehistory period. The information is provided about the amber products found, when they were intensively traded in 3500-2500 BC. The author writes: *“Great amber treasure hoards are found from this time period: 434 amber products from the Juodkrantė hoard and a 153-product stockpile in Palanga which was collected by the Tiškevičiai noble family of counts. 1913 amber products were found in Eastern Latvia until 1980 on the shores of Lake Luban alone. These are figurines of beasts and people, great ornaments that are evidence of the subtle sense of beauty of our oldest ancestors”* (Butrimas, 1993, p. 13). There is also more details about the trade in amber products provided.





**Figure 6.** Illustration of textbook “The grave of a young priest.” (Butrimas, 1993, p. 10).

The author of the textbook in the first topics avoided using the term “archaeology”. For example, it is written about the famous Lithuanian archaeologist Marija Gimbutienė, who is known in the world for her research. The textbook mentions Professor Marija Gimbutienė, there is a widely presented her view on the formation of Baltic tribes, but there is no mention of her being an archaeologist (Butrimas, 1993, p. 14).

For the first time, the term “archaeology” was used to write about the beginning of agriculture in the following context: *“When was the first agricultural furrow and the first culture plants grown on our lands? These questions are answered by archaeologists and botanists. The first to excavate wooden hoes, wooden ploughs from the ground (as agriculture in Lithuania appeared before the first metals), stone hoes, stone grain grindstones, flint scythe blades, and in 1990 in the Šventoji river archaeologist Rimutė Rimantienė found a wooden yoke of steers for oxen, exactly the same as depicted in the Neolithic cave paintings of Sweden and France”* (Butrimas, 1993, p. 21).

Other topics in the textbook constantly emphasise the importance of archaeology. For example, the author notes that *“when excavating larger hillforts of that time, the remains of approximately 6-10 houses and other outbuildings are found”* (Butrimas, 1993, p. 26), it is recalled that *“such a fragment of the shield was also discovered by*

*archaeologists in the grave of the Dauglaukis warrior*” (Butrimas, 1993, p. 27). It later notes that *“the dead rider was buried together with a horse, in the grave along with, as evidenced by archaeological excavations, a shield”* (Butrimas, 1993, p. 27), or *“Roman coins were found in the grain vaults of Gabrieliškiai hillfort (Raseiniai region), among which one was from Markus Aurelius (121-180) years of rulership. In the Northern provinces of Rome, the feeding of legionnaires’ soldiers and feeding their horses apparently required the grain of hard-working Aesti”* (Butrimas, 1993, p. 28).

The most extensive account about archaeology is written in the theme about Baltic peoples in times of the Great Migration. The author first describes the first written sources (these are the works of the historians Tacitus and Jordan) that give knowledge of the Balts, and then explain the importance of archaeology in the section “Earth testifies”. The textbook notes that the works written at the time “distort reality greatly”, but traces of human life and struggles are *“kept by our land, which is increasingly drawing attention of archaeologists, who reveal more about it”* (Butrimas, 1993, p. 33). The same page draws attention to the fact that *“Lithuanian archaeologists have also been lucky. More recently, it has come to light that archaeologists who examined several of their tombs have seen that there were militant Goths who migrated from the mid lands of the Danube”* (Butrimas, 1993, p. 33).

The author of the textbook, the archaeologist, describes in detail the arrow tip of a Hun *“trapped in the joint of our ancestor”* and adds that *“such arrows were also fired at the Aukštadvaris hillfort”* (Butrimas, 1993, p. 34). The drawing also depicts what archaeologists found in the grave of a Gothic man (Butrimas, 1993, p. 35).

The next section is very in-depth about each tribe of Balts and is based on the data of archaeologists. For example, the author writes about the Curonians (Kuršiai) tribe, which was burned the dead, and *“their graves contain a particularly large number of bronze ornaments, amber necklaces”* (Butrimas, 1993, p. 39), and the graves of the Semigallians (Žiemgaliai) tribe, which were not as rich as the Curonians, with fewer weapons than the warlike peoples in Samogitians (Žemaičiai) cemeteries, but with many farming tools; Semigallians tribeswomen *“had an iron hoe at their feet, a sickle or a curved knife”*, and here the Samogitians tribe *“buried the dead unburned, even a few spears were placed in the tomb of each soldier, sometimes a broad fighting knife, later various types of swords”* (Butrimas, 1993, p. 40).

According to the discoveries of archaeologists, the Eastern Balts (present day territory of Belarus and Russia) is described in detail. The description of Vikings on several occasions are based on archaeological science, such as: *“traces of their presence are found in the lands of Sambians (Sembai), Curonians, Semigallians”* (Butrimas, 1993, p. 46). On the Viking trade center on the island of Gotland it is written that *“in Viking times it became very prosperous; archaeologists in Gotland have found 700 treasure hoard buried at the time, some of which contained up to ten kilograms of*

*silver*” (Butrimas, 1993, p. 49). One of the Viking trade centers in the current territory of Latvia is described that “*here archaeologists found not only Scandinavian ornaments, tombs, but also a stone of runes*” (Butrimas, 1993, p. 51). These quotations from the textbook suggest that the text of Butrimas explains broadly about the discoveries of archaeologists in the present territory of Lithuania and the surrounding states, where the Baltic tribes lived.

We will also take a brief analysis of the illustrations of the textbook. The textbook is the first to contain many colorful drawings about the discoveries of archaeologists. Some of these examples are further described. Pupils are introduced to the oldest burial site found in Lithuania, which dates back to 5520 BC (Butrimas, 1993, p. 5), they are presented with a reconstruction of the settlement of the IV-III millennium BC on the Baltic Sea (Butrimas, 1993, p. 6), with a reconstruction of a grave of a priest in the 3rd millennium BC, (Butrimas, 1993, p. 10), with a reconstructed set of early Neolithic clay pots found in Eastern Lithuania (Butrimas, 1993, p. 15), with a wooden box, reconstructed and found in a sunken peat land found in a sunken, which was used as a backpack for bronze in the age of the transport of weapons and jewelry (Butrimas, 1993, p. 22), with the layout of barrow of Eglėškis in Eastern Lithuania (Butrimas, 1993, p. 25) and many other illustrations.

It should be noted that each illustration contains a detailed description. The description of the drawing depicting the tomb of a gothic person includes: “*The Goths grave in Vidgiriai cemetery (Šilutė region). The nomads then buried the dead in deep pits, almost 2 meters down from the ground. This warrior is buried in the coffin of oak planks. Next to the coffin, a symbolic sacrifice of two horses, i.e. the head, limbs and leather of horses, at the head, there is a silver-ornamented drinking horn, a dagger on the right side of the waist and right shoulder. There were as many five brooches found in this grave. One of them is pictured, and in the picture, you can see it drawn above the drinking horn. It is decorated with animal figures and is gold-plated. On the warrior’s neck, a massive silver collar. Only wealthy nobles wore such at the time. Thus, the Baltic lands in the V century were visited by communities of relatively wealthy soldiers, who most likely profited from military incursions to south Europe*” (Butrimas, 1993, p. 35).

Some illustration descriptions are complete and have a large text, thus they can be treated as separate text sources. However, it should be noted that this 1993 textbook “*Lietuvos Istorija*” (“*History of Lithuania*”) does not contain any questions or tasks. From this feature, it stands out from other history textbooks. Although we must note that in 1992, the Evaldas Bakonis textbook for year 11 “*Senovės civilizacijų Istorija*” (“*History of Ancient Civilizations*”) was published, which also does not contain questions or assignments for students (Bakonis, 1992).



**Figure 7.** Illustration of textbook “The grave of a Gothic man.” (Butrimas, 1993, p. 35).

To conclude, Butrimas textbook “History of Lithuania” for the first time introduced students with the science of archaeology in Lithuania thoroughly, and the prehistoric period was explained in great detail. There is no doubt that this is due to the fact that the author of the textbook is an archaeologist.

At the end of the 10th decade of the 20th century, the history textbooks began to be published by the publisher “Kronta”. It published the first textbooks, which were integrated as the history of the World and Lithuania were both presented in one book. A few years later, a second textbook was published, featuring more sources and assignments for students of history. One such was the textbook “Senovės Istorija” (“Ancient History”), which appeared in 2006 (Šetkus, 2006), which we will briefly review.

The first topic, “Istorija ir Istorijos Šaltiniai” (“History and Historical Sources”), refers to three groups of sources of history – written, non-written and verbal. In describing the first group of historical sources, it is stated that “*Unwritten sources include archaeological findings. These are working tools, weapons, jewelry, household items, clothes,*

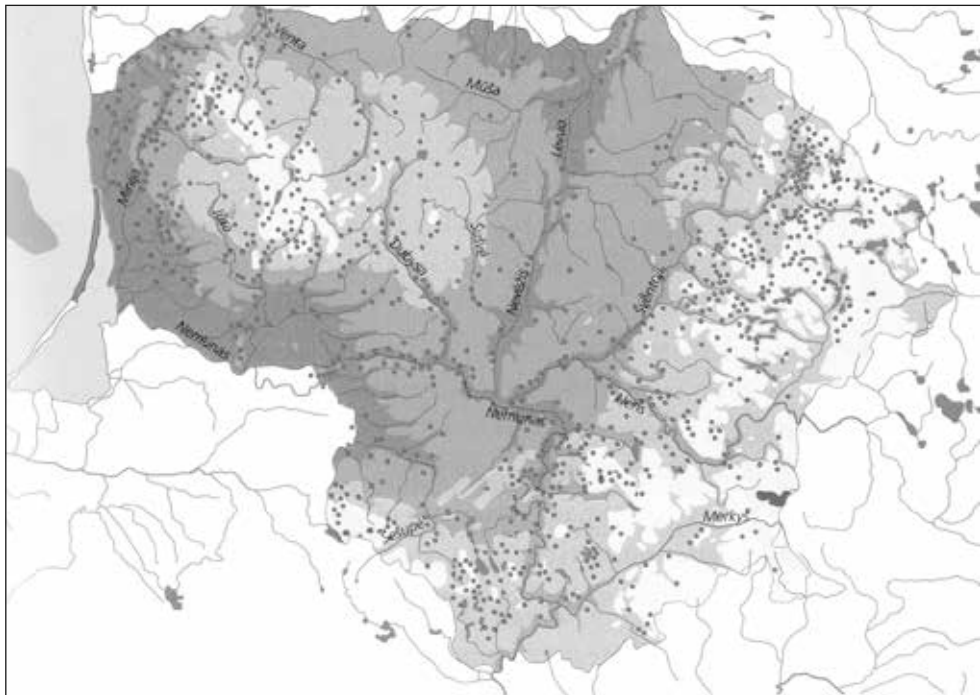
*etc. How did they get there? Eventually things are overgrown with grass, people filled buried them with earth, the wind and rain carried sand or black earth on top of them. So, things were 'buried' forever. Scientists searching for these items are searching the soil. The branch of science that studies the past of mankind by its findings is called archaeology*" (Šetkus, 2006, pp. 9-10).

Several illustrations help students to understand the specifics of archaeology more deeply: one drawing depicts a scientist researching human skeletons found by archaeologists, a picture shows archaeologists examining an ancient Egyptian tomb, third, a picture with artefacts from the Antique period found by archaeologists, the fourth is a photograph from the excavation by archaeologists in South Mesopotamia, where the cultural layer reaches more than 20 meters, in the fourth photo of archaeological exposition at the National Museum of Lithuania, the fifth picture shows a temple in the Stonehenge (England), the thoughts of archaeologist Rimutė Rimantienė on the importance of archaeological science (Šetkus, 2006, pp. 8-11) are also presented. This section includes a task to students after examining all the above sources, to answer the questions: *"How do archaeologists work and what places do they usually dig at?"* and the second question is *"What do they find in excavations and what do these findings testify of the ancient people's lives?"* (Šetkus, 2006, p. 9).

Prehistory topics comprise about a third of the entire textbook (about 80 pages), thus it is not possible to examine the text, illustrations, additional texts and assignments for students in great detail. We will distinguish between some of the features of this textbook and provide some examples.

The first feature includes that at the beginning of each topic there is an introductory question to students, which aims to encourage students to share their knowledge about the topic. Some of these issues are immediately related to archaeology. For example, the topic *"When monkeys started standing on two legs"* begins with the following task: *"The media often report on the latest research by scientists to explain the questions of human origin and its development. Tell us what you have read or learned about it while watching TV shows"* (Šetkus, 2006, p. 26). The topic *"Dependents of Nature"* begins with the following task: *"The research of archaeologists suggests that the inhabitants of the old Stone Age were truly dependent on nature. Provide arguments as to why these people can be called dependent on nature"* (Šetkus, 2006, p. 30). At the beginning of the topic *"What do the hillforts of Lithuania say"* students are given the following task: *"There are more than 900 hillforts in Lithuania. They are silent witnesses of the past, which give a great deal of knowledge of our ancestors Balts. Think about how hillforts can help develop the science of history"* (Šetkus, 2006, p. 76). The topic *"Baltic graves and their secrets"* begins with the following task: *"Larger or smaller burial mounds are found in every district of Lithuania. Local people often call them giants tombs, Swedish tombs, French tombs or otherwise. If you know or heard anything about them, share your thoughts"* (Šetkus, 2006, p. 88).

The second feature is that the author aimed to provide the examples of archaeological monuments and discoveries made by archaeologists from all regions of Lithuania. This intended to show that traces of the prehistoric inhabitants can also be found in or near the places inhabited by the pupils. To this end, the textbook contains maps that show hillforts locations across Lithuania (Šetkus, 2006, p. 77), areas across Lithuania which names come from the words “iron”, “iron ore”, “melt”, “blacksmith”, etc. (Šetkus, 2006, p. 86). Moreover, additional texts from the articles of scientists are presented. For example, the topic “What stories do the hillforts of Lithuania tell?” contains excerpts of two legends about two hillforts of Lithuania, and next that is shown what archaeologists found when excavating five hillforts of Lithuania. We will provide two examples: “1. *Nieveriškės*. (*Švenčioniai* region). The area of 1486 meters squared was investigated. 250 stone, 277 bone, 60 clay, 24 iron, 11 bronze products, over 4000 pot shards were found”; “2. *Paveisinkai* (*Lazdijai* region). The area of 240 meters squared has been investigated. Ceramic fragments were found. At the top of the hillfort, 27 tombs of the burned dead were found, some in urns, others without them. Urns are covered in stone.” Similarly, hillforts are explained, including what people think about them, that they can find expensive goods of gold or silver, but the archaeologist’s findings show the most commonly used tools can be found only (Šetkus, 2006, p. 90).



**Figure 8.** Illustration of textbook “A map of hillforts in Lithuania.” (Šetkus, 2006, p. 77).

The third feature attempts to show the students that there are questions which archaeologists cannot unanimously answer, or that differing versions of the same fact are provided. For example, two archaeologists have an opposite view on the same subject. Archaeologist Algirdas Girininkas states that *“Mammoths were apparently hunted by people who lived on the territory of Lithuania”*. Opinion of archaeologist Rimutė Rimantienė: *“It must be assumed that a person did not yet live in Lithuania when mammoths roamed in it”*. Students are given the following task: *“What do archaeologists think of mammoth hunting? What do their views show? Which view would you like to support and why?”* (Šetkus, 2006, p. 53).

We will give another excerpt from the textbook: *“For a long-time, archaeologists thought that the Neolithic people were building housing over the water. Such a village we see rebuilt in Germany (pictured above). The remains of the settlements on the poles were also found in Lithuania – Lake Luokesas, Molėtai district (photo below). So far, however, there is no straightforward answer. Some say that people were building settlements on stilts. Others believe that the water level of many lakes has risen today, so the remains of the then villages are now underwater”* (Šetkus, 2006, p. 59). There are more excerpts of such content.

The fourth feature includes that students are assigned tasks to better familiarise with the role of archaeologists and to study the sources presented and draw certain conclusions. For example, the topic *“Baltic Tombs and their Secrets”* contains two illustrations (one of which is a photograph taken by an archaeologist). Students are then tasked to answer these questions: *“What do archaeologists find when excavating tombs? What can be seen in the findings about the way of life of the people of that time?”* (Šetkus, 2006, p. 91). Another example is that, according to the sources provided, students must determine in which areas of Lithuania archaeologists have found the largest population campsites of the Paleolithic period (Šetkus, 2006, p. 51).

The fifth feature includes that each topic includes a large-format illustration, which is drawn on the basis of archaeological research data (referring to the prehistory period). Several questions have been asked to examine each such illustration. For example, six questions are asked to examine a drawing depicting a Baltic burial sites (Šetkus, 2006, p. 88), as well as questions for examination for a drawing depicting the settlement of ancient Baltic farmers (Šetkus, 2006, p. 72). There are also questions presented for the smaller illustrations, which were specifically drawn for that textbook and depict many types of the activities of the ancient people.



**Figure 9.** Illustration of textbook “Funeral ceremony of the Balts.” (Šetkus, 2006, p. 88).

Some data on the presentation of archaeology in the above-mentioned textbook are additionally presented in Table 3.

| Textbook and year of publishing / year of published article          | Laužikas R., Mackevičius G., Mickevičius K. <i>Kelias: Lietuvos istorijos vadovėlis 5 kl.</i> (2000) | Butrimas A. <i>Lietuvos istorija</i> (1993) | Šetkus B. <i>Senovės istorija</i> (2006) |
|--|--|---|--|
| Total number of pages / pages dedicated to pre-history               | 128/10   | 256/60                                      | 244/80                                   |
| Whether the word archaeology or its sources are mentioned            | +  | +   | +  |
| The usage of archaeology is shown by the author                      | –  | +   | +  |
| Number of illustrations on the topic archaeology and its categories: |  |   |  |
| – Archaeological artefacts   | 16   | 71  | 93                                       |
| – Archaeological reconstructions                                     | 7  | 18  | 50                                       |
| – Archaeological sites   | 1  | 6   | 16                                       |
| – Archaeological excavations   | 1  | 3   | 8  |
| Number of additional texts on archaeology                            | 1  | 40  | 27                                       |
| Number of questions/tasks related to archaeology                     | 1  | –   | 54                                       |

**Table 3.** Archaeological science presentation in the history textbooks used in Lithuania after 1990 years.

It can be concluded that in modern history textbooks there is a enough information about archaeological monuments, the significance of archaeological science and the specifics of the activities of archaeologists.



## Conclusions

The Lithuanian history textbooks used at the beginning of the 20th century did not include information of the science of archaeology. Little attention was given to the prehistory period. Only in middle of the 4th decade in Lithuania archaeological science became popular, therefore archaeology began to be taught and history textbooks were written about it. In 1936, we find information of the research carried out by archaeologists in Lithuania in the textbook edited by Adolfas Šapoka. The textbook contains several illustrations in which we see archaeological artefacts that allows us to understand the life of prehistoric people.

The history textbooks of Soviet Lithuania focused more on prehistory and archaeological science discoveries than previously written textbooks. In the textbooks “Senovės Istorija” published in Moscow, more topics were devoted to archaeology than in Lithuanian history textbooks written by Lithuanian authors. At the end of the 20th century, textbooks on archaeology contained more information than in mid-20th century textbooks. In this respect, the textbook “Senovės Istorija” by Korovkin is different as it was used for four decades and was updated several times, it also includes the research carried out by archeologists. The given illustrations provide knowledge about archeology, and several tasks are given to students which relate to it.

During the period since the restoration of Lithuania’s independence, several dozen history textbooks have been published, which focus on ancient history. An overview of the three textbooks can be used to conclude, that modern textbooks provide even more knowledge of the science of archaeology. On the one hand, the structure of the textbook has changed as it contains many sources of history and various tasks to examine these sources. The aim is to make students active in examining the various sources of history, including archaeology. On the other hand, the dissemination of archaeological science in history textbooks depends mainly on the personal position of the author of the textbook and on whether the author is an archaeologist.

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Figures (1-4) are from the old textbooks. Figures (5-9) are published with the permission of the textbooks' authors.

## **HISTORY LESSONS THROUGH ARCHAEOLOGY IN ZIMBABWEAN SCHOOL HISTORY TEXTBOOKS – FROM INDEPENDENCE ONWARDS**

### **Abstract**

What is the place of Archaeology within school History textbooks? This study aims to appraise the value of the presence of Archaeology alongside History in school textbooks in giving evidence for the prehistoric periods where written historical sources are not present. This paper takes the case of Zimbabwe, examining selected school History textbooks that were published in the country soon after independence from British colonial rule in 1980. Breaking with the colonial past, new curricular policies and textbooks embraced Archaeology through a transdisciplinary approach with History so as to provide the newly liberated Zimbabwe with an Afrocentric historical perspective, free from colonial bias and prejudice. In later years, this transdisciplinary relationship with Archaeology diminished, especially in the light of political shifts and the increasingly patriotic focus of Zimbabwe's History which led to the foregrounding of the subject of History and its narratives.

**KEY WORDS:** ARCHAEOLOGY AND HISTORY EDUCATION, EDUCATIONAL ARCHAEOLOGY, HISTORICAL ARCHAEOLOGY, HISTORY TEXTBOOKS, ZIMBABWE.

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# HISTORY LESSONS THROUGH ARCHAEOLOGY IN ZIMBABWEAN SCHOOL HISTORY TEXTBOOKS – FROM INDEPENDENCE ONWARDS

## Introduction

Herodotus felt it necessary to write History “so that human achievements may not be forgotten in time” (Marincola & de Selincourt, 2003, p. 3). Archaeology, as a sister discipline, was described by Hall as being, “above all else, the study of people through time” through the use of physical remains from societies in the past, able to shed light on what everyday life was like (1996a, p. 6). Archaeology and History, as social practices that developed from human ideas and traditions (Godemann, 2011), share much in common in that they both explore human achievements, albeit in fundamentally different ways: while History is written down, Archaeology provides physical evidence. The value of the latter is particularly visible when History cannot provide substantial evidence due to the lack of written sources. Their approach and application thus overlap but also differ, raising the question that is at the core of this chapter, namely how can these two different disciplines work together side by side in the field of education, particularly in school History textbooks in post-colonial societies?

This study takes a closer look at Zimbabwean school History textbooks, the so-called programmatic curriculum, from independence in 1980 to 2008. School History is designed by curriculum developers, in the case of Zimbabwe government officials, who decide which History should be included in the curriculum. Zimbabweans have had their History overwritten by colonial exploits and romanticized stories of adventurers exploring the unknown and discovering ancient ruined cities. Up to independence in 1980, the written History of Zimbabwe – known as Southern Rhodesia from 1923 until 1965, and Rhodesia from 1965 until 1980 – foregrounded White settler perspectives while it obscured autochthonous people’s History and achievements. Prior to independence, imperialist Archaeology imposed the thought processes and ideologies of European societies upon the artefacts and sites that were “discovered” (Shepherd, 2002), in so doing attempting to provide evidence of the superiority of European nations. Set against this backdrop, this study aims to understand how a newly constructed nation, Zimbabwe, engaged with these colonial histories, including its own History, in school History textbooks through the use of Archaeology. After all, prior to the arrival of White settlers there were city states and empires already established and memorialised through oral traditions.

This chapter begins by providing a background to the many dilemmas surrounding the teaching of Zimbabwean prehistory from the period of White settler occupation

in 1890 until the reform of the colonial syllabus<sup>3</sup> 2160 to syllabus 2166 in 1990, and the revision of the latter to syllabus 2167 in 2002. Drawing on relevant literature, it then takes a closer look at colonial History education and how Archaeology was incorporated into the new syllabus and written into school History textbooks. A methodology section will subsequently describe the chosen textbook sample and the research tools used in the analysis of third-year secondary school textbooks, examining their use of and references to Archaeology before outlining and discussing the key findings of this study.

## Background and Context: Colonial Interpretations

Zimbabwe was formerly known as Rhodesia and it was established in 1890, making it a relatively new colonial construct in the region. Its occupation by Europeans was a direct result of the gold rush that had occurred on South Africa's Witwatersrand during 1886. Europeans at the time, minds awash with traditions of the *Monomotapa* – a wealthy African state that rose to power in the 1450s shortly after the decline of Great Zimbabwe – and rumours of ruined cities, were anxious to explore further north, hoping to reach the gold deposits that had previously reached East African coastal towns through indirect trade (Hall, 1995, p. 184). These Europeans legitimised their occupation by stating the lands they occupied were “virginal tracts of land”, only sparsely populated by groups of “primitives” (Kaarsholm, 1992, p. 152). These so-called primitives were the ancestors of the Shona<sup>4</sup> (Karanga) people who had inhabited this region since the second millennium AD, before the arrival of the Ndebele<sup>5</sup> in the 19th century (Pikirayi & Pwiti, 1999; Mazarire, 2013). This theory provided legitimation for White settlers to move into the region, thus uprooting the Shona and the Ndebele from their homes and establishing a White state (Pikirayi & Pwiti, 1999). In a context marked by the lack of written sources, the official History produced by the new settlers at the time considered the locals as people without a History and consequently began with the period of colonial occupation. How then did White settlers explain the establishment of monumental stone walled structures, of which the most famous known to the settlers were the Zimbabwe Ruins?

In their search for gold, the White settlers came across archaeological remnants in southeast Zimbabwe, now known as Great Zimbabwe. “*Madzimbabwe* or *Zimbabwe*”,

3 The term curriculum embodies the aims of a subject's pedagogy, methodology, content and assessment; the syllabus enhances the curriculum by breaking the content down into topics and stipulating the time frame in which to teach and to assess.

4 The name Shona is a collective name to describe the peoples that occupy the central, north and eastern parts of Zimbabwe.

5 The Ndebele are a Bantu-speaking people of southwestern Zimbabwe who emerged in the early 19th century as an offshoot of the *Nguni* of Natal. Their leader, Mzilikazi, was forced to flee King Shaka Zulu in 1823 due to a conflict. They migrated slowly northwards coming into conflict with European settlers (Voortrekkers) before finally settling in Matabeleland (Zimbabwe) ca. 1840. His successor, Lobengula, extended this group's power by incorporating Sotho and Shona peoples (“Ndebele Zimbabwean People”, 1998).

according to Pikirayi (2013), means “houses of stone,” and these remains were central to Zimbabwean History and tradition (p. 26). Prior to the White settlers’ arrival, the first known Europeans to locate these ruins were the Portuguese. The Portuguese author João de Barros, in his book *Da Asia* published in 1552, gave one of the earliest detailed descriptions of the stone walled structures found in Great Zimbabwe (Hall, 1995; Pikirayi, 2013). De Barros told of abandoned gold mines and stone buildings known as “*Symbaoe*” belonging to a local king but did not indicate the identity of the original builders of these walls (Hall, 1995, p. 184). In line with a western ideology and Eurocentric perspective which considered Africans as peoples with no civilisation, technology, religion, or any form of writing, Europeans came to believe that “primitive” Africans could not have built such imposing structures, especially when the majority was living in crude mud dwellings with thatched roofs. A “Solomonic” legend soon developed, according to which Great Zimbabwe had been built by a civilised race from the land of gold “Ophir” (Carroll, 1988, p. 235), as mentioned in the Bible in Kings 9:27-8: “*Hiram sent in the navy his servants, shipmen that had knowledge of the sea, with the servants of Solomon. And they came to Ophir, and fetched from thence, gold, four hundred and twenty talents and brought it to King Solomon.*” This Biblical reference would then influence the work of fictional writers such as H. M. Walmsley’s *The ruined cities of Zululand*, published in 1869, and Rider Haggard’s *King Solomon’s Mines*, published in 1885.

In 1871, Carl Mauch, a self-educated German geologist, was credited as the first European to encounter the structures of Great Zimbabwe since the Portuguese (Carroll, 1988; Mazarire, 2013). Drawing from quotations in the Bible and possibly from works such as Pollard’s popular and legendary *Mandeville’s Travels* (1915)<sup>6</sup>, Mauch believed that the structures found at Great Zimbabwe were Phoenician in type, and argued that the buildings had been “modelled upon King Solomon’s temple and palace, and that they had been the residence of the Queen of Sheba” (Kaarsholm, 1992, p. 157).

Such accounts led to great curiosity and enthusiasm: in 1891, the Royal Geographical Society, the British Chartered Company of South Africa, and the British Association for the Advancement of Science (BAAS) funded an archaeological expedition for Great Zimbabwe, led by archaeologist Theodore Bent (Hall, 1996b, p. 108). Bent, who had been influenced by the Solomon and Sheba myths, concluded that Great Zimbabwe “*was built by Arabians and Semites in the lands of Ham*” (Hall, 1996b, p. 109). Cecil John Rhodes, an imperialist after which Rhodesia was named and who had personally sponsored Bent, was of the opinion that Great Zimbabwe was indeed evidence of a lost civilisation and the discoveries of artefacts by Mauch and Bent led to “*the formation, in 1895, of Rhodesia Ancient Ruins Ltd.*” (Hall, 1996b, p. 109).

6 “Sir John Mandeville”, according to Hall (1995), probably did not exist as a single author and the *Travels* was most likely a compilation of popular mythologies (p. 120).

7 This was “*a company which was set up with the express purpose of prospecting ancient ruins for treasure*” (Rhodesian Study Circle, 2015).

The excavations which followed were not conducted professionally by today's archaeological standards and the damage to evidence was irreparable. David Randall-MacIver, a British archaeologist sent by BAAS in 1905 to re-excavate Great Zimbabwe, contested the view that the builders of Great Zimbabwe could not have been the ancestors of the Shona people. Gertrude Caton-Thompson was the third archaeologist commissioned by the BAAS to conduct research on the origins of Great Zimbabwe. Her findings were to trouble the debate on the true builders of Great Zimbabwe (Kuljian, 2016) as she located its origins in Zimbabwe itself (Carroll, 1988). Renfrew and Bahn (2000) mention that Caton-Thomson's theory challenged both the migrationist theory of Bent, who had situated Great Zimbabwe's builders in the Arabian Peninsula, and the diffusionist theory of Summers, according to whom, the craftwork came from a travelling Portuguese stonemason or Arabs who influenced the local rulers of the time, at whose service these foreigners were (p. 464). Caton-Thompson's work, though, did not necessarily elevate African society in the eyes of Europeans: her work referred to the builders' apparent "infantile mind", thereby "*reducing the architecture to that of barbaric*", an assessment that suited the colonialists' political agenda (Hall, 1996b, p. 112). In this politicised context, contradicting such dominant views held by the White settler community on Great Zimbabwe became a perilous undertaking: archaeologists in Zimbabwe, such as Peter Garlake, were exiled under "*the repressive Ian Smith [Rhodesian] government ... in 1970*" for concluding that the Zimbabwe-type structures had been built by the ancestors of the Karanga peoples (Pikirayi, 2012, p. 224).

Against this backdrop, as will be outlined below, Rhodesian school History textbooks focused on European History, foreclosing the possibility for Black learners to develop a holistic understanding of their past and how their History fitted in with the imperialist History found in these textbooks. It was only upon gaining independence that the new government of Zimbabwe came to appreciate the value of Archaeology: Archaeology would give the newly constituted nation an opportunity to learn about and engage with its past in a way that was not Eurocentric.

## **A Consideration of the Literature**

This section expands on the Zimbabwean school History curriculum and its development from independence in 1980 to the present, with a focus on the inclusion of Archaeology into the History curriculum. Archaeology as a school subject, or as part of school History, is becoming increasingly popular around the world and there are many instances where archaeologists are working to incorporate this discipline into school curricula (Esterhuysen, 2000; King, 2012). The idea of Archaeology in education is not a new one but goes as far back as World War II. Back then, Frere and Frere (1942) had considered that Archaeology and History could collaborate

successfully and that “*archaeology had a part to be played*” in society, most notably through its involvement in education (p. 97).

In Zimbabwe in the 1990s, Archaeology was seen as a subject in its own right; it did branch out into what was known as historical Archaeology, an offshoot of Archaeology that focuses on written documents and oral traditions that can contextualise evidence in the form of cultural material. This inclusion of Archaeology in History was established mainly at university level in the 1990s; it was around the same time that the idea of incorporating Archaeology into school History textbooks began to materialise.

The context of the creation of these textbooks, which are typically instrumental in the teaching of “legitimate” knowledge and ideologies, was a tumultuous time marked by dramatic political change, from an oppressive and racist White settler regime to an African socialist form of government. This context provided an opportunity for History to be reconsidered from the perspectives of the oppressed. On this occasion, authors from different social, cultural, economic and professional backgrounds came together to assist in the writing of School History textbooks. Pwiti, himself an archaeologist, in collaboration with Barnes, Mutwira, Mvenge, Pape and Prew, authors of *People Making History Book 3* (1991), developed one of the first syllabus-compliant History textbooks that saw collaboration between an archaeologist, an anthropologist and historians. Garlake, an archaeologist, and Proctor, a historian, co-authored *People Making History Book 1* (1991), another popular textbook, in much the same manner.

As we highlighted in the section above, during the colonial era Zimbabwean History was plagued with myths and assumptions. Similarly, schooling under Rhodesian rule, based upon a “19th century middle-class” system developed in Britain, was dominated by Eurocentric beliefs and interpretations (Shizha and Kariwo, 2011, p. 29), which taught that the White people were the rescuers of the African peoples from “barbarity and backwardness” (Pwiti, 1994, p. 339). In this context, colonial school textbooks “discouraged black pupils” from engaging with the past (Pwiti, 1994, p. 339). The oppressive and racist colonial society that was reflected in colonial school History lessons caused resistance and led to a protracted struggle which ended in independence in 1980 and the electoral victory of Robert Mugabe’s political party, the Zimbabwe African National Union – Patriotic Front (ZANU-PF). From this moment forward, the new government restructured the education system. Significantly, one of the first orders of office for the incumbent ZANU-PF party was to restructure the History syllabus 2160 designed by the previous colonial government. According to the new leaders, the only way for Zimbabweans to fully achieve their liberation was to unreservedly break away from imperialist ideologies, notably by implementing a scientific socialist approach of Marxist-Leninism into the school curriculum, university and teachers’ colleges.



Despite immediate calls for reform, the old Rhodesian syllabus 2160 and its related textbooks, which had been in use in the country since the mid-1970s, continued to be used after independence, “*sometimes with new and more Africa-centred texts*” (Barnes, 2007, p. 635); this was the case up until the early 1990s, when the new syllabus 2166 finally came into effect. The reform, introduced in 1991, attempted to move away from the colonial Eurocentric version of History towards a more “*nationalist, Africa-centred and Marxist-inspired History syllabus*” (Barnes, 2007, p. 633). This syllabus tied in with the ideology of scientific socialism, which, according to Chung and Ngara (1985, p. 102), “*is about changing society for the better*” by “*help[ing] the learners to understand how societies work.*” The new government thus used reformed History education as a vehicle for teaching the masses about the benefits of socialism and the dangers of a capitalist society similar to the one that they had gained independence from. The concomitant integration of Archaeology into the new school History textbooks under the reformed curriculum 2166 saw the application of the Marxist approach which foregrounded descriptions of modes-of-production<sup>8</sup>, a niche that Archaeology fitted into to explain the development of pre-capitalist societies. With the help of Archaeology, the simplest forms of modes-of-production were seen to develop over time from a “*communal mode-of-production to that of a tributary mode-of-production*” (Parsons, 1991, p. 16).

The History textbooks used in Zimbabwean schools after independence, with a very strong archaeological influence, played an important role in writing a new History for a new Zimbabwe by setting the record straight on early Zimbabwean History. As a result, much of the first-year Zimbabwean high-school History, according to syllabus 2166, focused on the very origins of previously obscured pre-colonial societies, with the assistance of Archaeology explaining evolution, technology (stone tools, pottery and iron smelting) and cultural development before the arrival of European settlers. These origins began with the “*Stone Age*”, a term used to indicate the most commonly found artefact used as a tool in this period, when “*most of the people were nomadic moving around the country with the changing seasons*” (Hall, 1996a, p. 10). What better way to assist this understanding of how societies work than by teaching prehistory through archaeological principles to school learners?

Scholars have considered syllabus 2166 to be nationalist in nature, because it praised the achievements in terms of nations coming into existence and of days gone by (Barnes, 2007; Bentrovato, 2018; Maposa & Wassermann, 2014; Ranger, 2004). The more recent History syllabus 2167 and its related textbooks, launched ten years after 2166 in 2002, has been termed “*patriotic*” (Barnes, 2004; Maposa & Wassermann, 2014; Ranger, 2004) as it focused specifically on Zimbabwean History and politics,

8 The mode-of-production, according to Hall (1996a), consisted of two important parts: “*the ‘forces of production’ (... resources available to a given community) and [...] the ‘relations of production’ (the ways people organise themselves in order to use the force of production)*” (p. 67).

namely that of the Shona and the Ndebele, not giving much recognition to other, minority groups living in Zimbabwe.

## Research Methodology

In seeking to understand the multiple realities presented above, this chapter adopts the interpretive paradigm and a case study qualitative approach (Nieuwenhuis, 2010, p. 64) to generate a rich and in-depth description of the varying presence and use of Archaeology in Zimbabwean History textbooks post-independence throughout the syllabus changes.

Textbook selection occurred through purposive sampling. The chosen History textbooks included clear archaeological references to support particular historical explanations. They were also in accordance with Zimbabwe's Ministry of Higher Education's requirements as respectively outlined in the "nationalist" Syllabus 2166 of the 1990s and the more "patriotic" syllabus 2167, which has been in use since 2002 until 2017. Two textbooks were selected for the purpose of this study: the first is *Focus on History: Book 3* by N. Parsons, published by The College Press in 1991; the second is *Step Ahead History: Student's Book Form 3* by S. Mavuru and K. Nyanhandu-Ratsauka, published by Longman Zimbabwe in 2008. The selected textbooks have both been in use within Zimbabwean schools in the past and presently – due to the recent political shifts making textbook publishing and acquisition difficult – and present a fair representation of what has been taught in the classroom setting since the country's independence and until today.

The relevant sections of the data sample were selected based upon their employment of Archaeology to help explain historical concepts and modes-of-production in line with the socialist tendencies characterizing Zimbabwean syllabi and textbooks (see Table 1 for the demarcated sections of analysis). The main focus was on the technological and social development of societies through different modes-of-production as well as the formation of societal structures before and briefly after the arrival of the White settlers.

| Authors     | Year | Title                           | Publisher         | Sections analysed  |
|-------------|------|---------------------------------|-------------------|--|
| Parsons, N. | 1991 | <i>Focus on History: Book 3</i> | The College Press | <ol style="list-style-type: none"> <li>1. Topic boxes and Introduction – pp. 4-5</li> <li>2. Introduction – pp. 9-10</li> <li>3. Later Stone Age and Early Iron Age – pp. 11-26</li> <li>4. Middle Iron Age Villages and Early Towns – pp. 27-39</li> <li>5. Later Iron Age Kingdoms – pp. 40-56</li> <li>6. Southern African Contacts with Merchant Capitalism – pp. 57-60</li> </ol> |

| Authors                             | Year | Title  | Publisher        | Sections analysed   |
|-------------------------------------|------|--|------------------|---|
| Mavuru, S. & Nyanhanda-Ratsauka, K. | 2008 | <i>Step Ahead History. Student's Book Form 3</i> | Longman Zimbabwe | 1. Developments of Early Societies – pp. 1-10<br>2. Great Zimbabwe – pp. 11-19<br>3. Mutapa State – pp. 20-33<br>4. The Rozvi State – pp. 34-42<br>5. The Zulu State and Nguni incursions – pp. 43-60<br>6. The Ndebele Kingdom – pp. 61-72<br>1. Portuguese activities in the Zambezi Valley – pp. 73-75 |

**Table 1.** Demarcated sections from the textbook sample for analysis.

A qualitative content analysis instrument was used to group similar themes and concepts together from the analysed sample sections. We identified four units of analysis, corresponding with the chronological sections that are present in *Focus on History*, and whose time frames we could correlate across *Step Ahead History*, where each chapter's title was not as clear in terms of chronology but rather foregrounded the names of pre-colonial societies. They are: the Later Stone Age and Early Iron Age, Middle Iron Age Villages and Early Towns, Late Iron Age Kingdoms, and Southern African Contacts with Merchant Capitalism. Based upon different forms of archaeological remains that could be discovered at a site, our analytical instrument further subdivided each unit of analysis into themes in order to show how Archaeology featured in each of the analytical units. The remains could be anything from foundations of buildings, remains of economic activities such as mining or tool manufacture, and burials. Related archaeological references featuring in the selected textbook sample were thus categorised according to the following emerging themes:

- Theories – references to theoretical terms relative to Archaeology, such as modes-of-production, Late Stone Age, Early Iron Age, migrationist and diffusionist theories.
- Chronology and Evidence – references to time relative to Archaeology, determined through radio-carbon dating or the use of tree rings (dendrochronology), and the use of evidence such as pottery sherds found in consecutive layers (stratigraphy) that assist in these dating techniques.
- Architecture – references to the remains of buildings such as Great Zimbabwe, surrounding homesteads and the physical evidence that is relative to built-up structures such as *daga* (clay) floors, walls, wooden poles/beams, kraals, grain bins and furnaces used in smelting practices.
- Economics – references to physical remains proving the economic stability or instability of communities through mining or farming practices. The remains of stone artefacts, metal jewellery or farming tools are all relative to economics and indicate the manufacturing process or mode-of-production practiced by certain communities.
- Society – references to remains proving particular societal roles and dynamics; for instances, certain areas within a village or the nearby surroundings could be demarcated for gender purposes, such as an area for iron smelting, which was

a male-dominated activity. These remains can lead to a better understanding of gender roles, e.g. whether rulership of a homestead or village was through a matrilineal or patriarchal lineage, as well as an understanding of the relationship between religion, leaders and the common people.

- Death Rituals – references to burial practices proving the importance of a person in life, as determined by his or her treatment in death. The use of archaeological evidence explained the importance of an individual based on the directionality of the interred person and the grave goods associated with that person; at times, it further evidenced his or her gender through location of the burial.

## Findings

The case study generated a number of key findings. We observed that *Focus on History: Book 3*, published in 1991 in line with syllabus 2166, is indeed more nationalistic in nature; it promoted the Zimbabwean nation by teaching a History free of the influence of imperialist histories, which began before the advent of colonialism. This textbook's use of Archaeology is prevalent in its descriptions of the earliest societies prior to the formation of the Shona and the Ndebele communities as we know them and encompasses all the above-mentioned themes. The textbook's historical descriptions of these societies are deeply entwined with archaeological evidence, as illustrated through the use of activities, diagrams and sketches of actual excavations and the artefacts discovered. The analysis shows modes-of-production as a recurring pattern within *Focus on History* and they feature in three different stages, namely communal, lineage and tributary modes of production. Furthermore, the theory of modes-of-production and dialectic materialism are explained extensively at the back of this textbook in the revision section. The use of Archaeology in *Focus on History* suggests its authors' reliance on this discipline as a primary source of information for the prehistoric period in Zimbabwe. This finding thereby reveals a strong transdisciplinary relationship between historians and archaeologists collaborating in the authorship of this textbook. This becomes evident through the use of archaeological case studies of existent excavations and accurate explanations of archaeological terms and dating techniques, all embedded alongside the historical text in a complementary manner. As also indicated by Pwiti (1994), who examined some of the school History textbooks that emerged after the syllabus change to 2166 in 1990, the analysis noted the presence of explanations of dating techniques devoted to the Iron Age period from AD300 – 1700, a period of time specific to Zimbabwean prehistory and preceding the arrival of the White settlers; and of archaeological illustrations and activities which moved away from the traditional History textbook style.

We also found Great Zimbabwe to still be a central theme in the textbook sample. Great Zimbabwe indeed was used as a symbol for a nation-building exercise from an Afrocentric interpretation and not an imperialist one; *Focus on History* explained the development of the Great Zimbabwe culture in stages, using archaeological sites as primary sources showing the connections between early Iron Age migrations, trade relations and the development of *daga* and stone structures, the manufacture of pottery, smelting of iron and finally the building of Great Zimbabwe itself. The book employs topic boxes throughout its pages for a further in-depth coverage of archaeological theories and practices. Specifically, it shows a topic box on the History of Great Zimbabwe from the early Eurocentric perspective which the learners could then compare to contemporaneous research, embedded in the same topic box. The assessment activities in *Focus on History* expose different levels of inquiry in line with syllabus 2166's requirements for learners to engage with a number of historical sources, both visual (archaeological illustrations, maps and photographs) and textual (additional topic box information and the main historical text). The evidence thus showed levels of identification, analysis, empathy and synthesis of information from each of the exercises present in the data set, indicating the presence of key points of performance expected of History learners that Barton and Levstik (2004) have called for within the teaching of historical knowledge.

The more recent *Step Ahead History: Book 3*, published in 2008 in line with the updated syllabus 2167, contains several archaeological references but maintains the more traditional historical narrative throughout, showing a more prevalent reliance upon oral traditions while also foregrounding certain Shona and Ndebele cultural practices. Overall, it displays no clear enough explanations or presentations of the theory of modes-of-production, although it features certain elements related to this theory: for example, it mentions the many tributes that were offered to chiefs or the political hierarchies that emerged as a result of ownership of livestock, thus linking such practices to the tributary mode-of-production – a relationship that, however, would only be recognised if the teacher or learner had a basic understanding of modes-of-production. The textbook shows evidence of archaeological representations and terms especially in the discussion around the Stone Ages; in doing so, however, it displays the usage of incorrect terminology (in addition to many grammatical errors), for example its erroneous reference to “ecolith” instead of “eolith”, a term used to describe a chipped stone closely resembling stone tools while in fact being the result of naturally occurring processes of weathering. This points to the lack of a transdisciplinary relationship and of close cooperation between historians and archaeologists in the authorship of *Step Ahead History*. Here, we additionally found various instances where references to existing archaeological evidence could have effectively been made. One such instance is the description of the religious practice of sacrificing cattle which would then be consumed by the entire population of Great Zimbabwe (Mavuru & Nyanhanda-Ratsauka, 2008); in this respect, the textbook shows no acknowledgment of excavations of animal remains that could link to this

type of sacrifice. While mentions of archaeological evidence were rare, the textbook's authors occasionally relied on pseudo-Archaeology, a type of Archaeology based on unfounded assumptions and inaccurate interpretations. An example of this practice can be found in *Step Ahead History's* patriotic descriptions of Great Zimbabwe which focus on the magnificent beauty of these structures and their Shona origins, although no factual evidence is presented to underpin this argument. The textbook's authors affirm that "*It has been established beyond any reasonable doubt by archaeologists, modern historians, Shona oral traditions and ... Portuguese records, [that] the stone structures were constructed by the Shona people themselves*" (Mavuru & Nyanhanda-Ratsauka, 2008, p. 13); yet, there are no archaeological references in the text to explain how the above-mentioned knowledge came to be established. The only references to archaeologists are two biased opinions from the 1960s – by a British and a white Rhodesian archaeologists respectively – about the original builders of Great Zimbabwe, indeed casting doubt about the Shona being the true builders. The authors present no further in-depth archaeological explanations of earlier cultures and their relations to Great Zimbabwe, such as the Bambadyanalo culture, of the Leopard's Kopje tradition, and the Gumanye culture that led to the formation of the Great Zimbabwe nation as presented in the earlier textbook.

In sum, *Step Ahead History* appears to have pushed Archaeology into the background, using it almost as an afterthought and no longer proffering this discipline the status it used to have as a primary source of evidence. Oral traditions and written historical records have now taken precedence. Although *Step Ahead History* only relies on Archaeology when there is insufficient historical or oral traditional evidence, it is evident that Archaeology is still considered valuable to teach younger generations about pre-colonial African societies.

## Discussion

A major pattern we observed from the analysis we conducted as part of this study relates to the varying degree and depth of the use of Archaeology evident in the textbook sample. The reasons for this variation can be found in the context in which the respective school History textbooks were produced.

*Focus on History: Book 3* was published approximately ten years after Zimbabwe gained independence in 1980, and it was designed in line with the syllabus 2166 which came into effect in 1990 to correct previously dominant Eurocentric perspectives on Zimbabwean prehistory. The book, grounded in historical and archaeological science, was factual in nature and simultaneously allowed for the promotion of nation-building through Archaeology. Its analysis revealed a more intelligible presentation of Zimbabwe's prehistory through the use of Archaeology and a clearer description of modes-of-production through the visual representation of actual

excavations featuring in this textbook. The modes-of-production were further broken down into different stages of development from the communal stage to the linear stage and finally the tributary stage. The illustration of these different stages through the use of archaeological evidence arguably facilitates learners' historical understanding, making the learning of this concept more tangible. The History of Zimbabwe is continually being reassessed and rewritten as new information comes to light as a result of ongoing discoveries made by archaeologists. Why, then, is there a definite shift away from the strong archaeological reliance evident in *Focus on History* towards a more prevalent use of oral traditions in the more recent *Step Ahead History*?

*Step Ahead History: Book 3* was published some twenty-eight years after independence, during a period of political turmoil, violence and dire economic conditions that accompanied and followed Zimbabwe's first general elections in 2008. In line with the "patriotic" syllabus 2167, this textbook's presentation of Zimbabwe's early History, featuring presentations of family tree genealogies of rulers and origin stories of prehistoric states, relied heavily on both oral traditions to describe prehistoric forms of governance and historical texts written by Portuguese explorers such as de Barros. This particular content and approach provide evidence of a lesser need for Archaeology as a science to rectify biased colonial histories and more of a perceived need to remind the youth of how the Shona kingdoms of Great Zimbabwe, and other states, rose to power and established themselves in the pre-colonial era. *Step Ahead History* relies mainly on oral traditions, historical narratives and other lineage or patriarchal traditions rather than science, reducing the use of Archaeology to an afterthought. That said, *Step Ahead History* should not be discredited because it, too, has shown the importance of oral traditions forming the basis of ideas and memories of a prehistoric society, which in turn would complement the archaeological primary sources found.

*Focus on History* rectified the ideological bias from the colonial era and endeavoured to teach History from an Afrocentric perspective using Archaeology to do so; conversely, *Step Ahead History*, through reliance on oral traditions and European historical texts, glorified and promoted ruling elites and dominant cultural groups, as has often been the case around the world (Pingel, 2010), at the expense of marginalised minorities such as the Batonga, the Venda and the Shangani.

## Conclusion

This study examined how a newly constructed nation made use of Archaeology as a sister discipline in school History textbooks to give back to Zimbabweans their own prehistory, free from imperialist agendas. In conclusion, we may argue that the presence of Archaeology was much stronger in the earlier *Focus on History: Book 3*

under the syllabus 2166 than in the more recent *Step Ahead History: Book 3* under the revised syllabus 2167. *Focus on History* showed the potential of Archaeology to assist History in presenting scientific evidence in support of prehistoric events that were never documented in written form, notably by illustrating how modes-of-production worked through the findings from excavations. Although *Focus on History* attempted to rectify the History taught under colonial rule through the use of Archaeology, it still supported a political agenda, namely, to spread the idealism of African socialism through the explanations of modes-of-production and the dangers of capitalism.

The political setting surrounding the writing of *Step Ahead History* shows the implications of political upheaval and its effects on the quality of History textbooks. Against this political backdrop, the syllabus 2167 reminded the learners of the great achievements of their forefathers through the use of oral traditions and written Portuguese documents. The danger of this is that it reintroduced biased foreign points of view to History, resulting in a circling back to Eurocentric views on Zimbabwe's earlier History.

What this study further brought to light is the benefit to History of collaborating with other disciplines such as Archaeology through a transdisciplinary approach. Premised on the argument that learners need to feel included in the History of their nation and that they have a say through their learning experiences and knowledge gained from History lessons, we believe that activities that are archaeological in nature can assist in this respect, by bringing History to life. Adding in archaeological finds, if accessible to the teacher, effectively makes History real and activates all senses, thus assisting historical inquiry in becoming less abstract. While not all History teachers may have had the opportunity to study Archaeology, we believe in the value of including its study in a practical sense, not just the theory of Archaeology but the practice of excavations, into History teacher training courses, especially under modules that cover historical methodologies. History teachers will be further enriched from this exposure and so too would their future learners. Thus, it is worthwhile keeping the channels open for historians and archaeologists to be able to collaborate with one another for the greater good of a nation's past, present and future.



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## EXPLORING THE ROLE OF ARCHAEOLOGY IN DUTCH SECONDARY SCHOOL HISTORY TEXTBOOKS

### Abstract

Archaeological principles might promote historical thinking competencies among students but not much is known about the role of archaeology in Dutch history textbooks. Therefore, the aim of this study was to explore how archaeology is presented and used in two Dutch history textbooks for first year pre-university secondary school students. A horizontal textbook analysis was conducted which showed that both textbooks implement archaeological concepts and sometimes in combination with historical thinking competencies. The study ends with a call for close collaboration between archaeologists and history teachers.

**KEY WORDS:** TEXTBOOK ANALYSIS, HISTORY EDUCATION, ARCHAEOLOGY, HISTORICAL THINKING, DUTCH CURRICULUM.

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# EXPLORING THE ROLE OF ARCHAEOLOGY IN DUTCH SECONDARY SCHOOL HISTORY TEXTBOOKS

## Introduction

Scholars worldwide agree that secondary history education is about more than learning to recall historical facts (e.g. Seixas & Morton, 2013; Van Drie & Van Boxtel, 2008). History education should aim to promote historical thinking among secondary school students. Students should master competencies such as evaluating historical sources, asking historical questions, examining causality, and contextualizing historical events. However, historical content knowledge remains important in learning to think historically because without topic knowledge students cannot perform historical thinking competencies successfully (e.g. Huijgen et al., 2014; Huijgen et al., 2017).

The discipline of archaeology can promote historical thinking among secondary school students in two ways. First, archaeology can help students to learn about the societal, economical, and technological circumstances of different historical periods such as the Roman Period and Middle Ages. Consequently, archaeology could help students in their understanding of historical time and more specifically to grasp ‘the sense of a period’ (Dawson, 2009; De Groot-Reuvekamp, 2017). Secondly, archaeology could help students to develop historical thinking skills. For example, students can evaluate historical evidence by comparing artefactual and documentary sources or learn about multiple perspectives and cultural variety by examining artefactual sources (Henson, 2017).

Despite the possible benefits of archaeology for developing historical thinking, not much research has been conducted on how archaeology is implemented in history education. Therefore, this study aims to explore the role of archaeology in two widely-used secondary school history textbooks for pre-university education.

## Theoretical Framework

### *The Concept of Archaeology*

To explore the role of archaeology in history education it is first needed to conceptualize archaeology. The *Society for American Archaeology* defines archaeology as the study of the ancient and recent human past through material remains. As stated by

Henson (2017), *“The processes of archaeology are twofold: discovery and interpretation. That is, we discover (recover, record etc.) the physical remains of human activity, and we develop histories of past human life based on these remains”* (p. 44).

Archaeology education is viewed as a hybrid discipline consisting of educational insights and the field of archaeology (Smardz & Smith, 2000). The terms ‘public archaeology’ and ‘heritage education’ are also often used to describe archaeology education. In contrast to history education research, not much research has been conducted on archaeological education in primary and secondary schools. As stated by Cole (2014), *“Archaeological education is under researched and poorly understood and despite drawing upon the richly theorized fields of archaeology and education, archaeological education is also under theorized”* (p. 3). Black (2000) noted, *“The notion of archaeological thinking has yet to be explored fully for its own sake”* (p. 8). Moreover, the term ‘educational model’ which is used in literature on heritage education and public archaeology (e.g. Van Londen, 2016) is confusing because this model focusses on raising (financial) support for archaeological projects.

### ***Teaching Archaeology to Achieve Historical Thinking***

The conceptualization of archaeology shows similarities to the discipline of history. For example, history also tries to reconstruct histories, including historical agents’ actions that are based on documentary and artefactual evidence. Furthermore, both disciplines study past human experience to understand continuity and change and chronology is important to both fields (Black, 2000).

Besides the similarities, archaeology could contribute to teaching historical thinking. For example, archaeological artefacts could provide missing insights into the life of historical agents because artefacts allow for intimate perspectives of ordinary lives in the past (Moore, 2018). These insights could possibly correct an imbalance towards political history and the actions of the elite, i.e. the Great Men Theory (Henson, 2017). Archaeology could also promote thinking and reasoning about time and chronology which is also an important component of historical thinking (De Groot-Reuvekamp, 2017). For example, it might teach students not to think in block-time approaches (e.g. Crellin, 2020; Henson, 2017) and to examine differences between absolute and relative chronologies (Lucas, 2005). Discussing historical significance is also a key component of historical thinking (Seixas & Morton, 2013). Heritage education might promote such discussions because in heritage education students are often asked to evaluate the value of heritage for future generations (Van Boxtel, 2009).

A general benefit of teaching archaeology in history education might be that authentic artefacts, which can only be examined using physical evidence, can engage young children in history lessons because they do not require children to read or write

unlike other forms of historical evidence (e.g. Crawford, 2016; Haward, 2005). Real-life artefacts might not even be necessary as Doull (2019) showed that pictures of artefacts could promote primary pupils' understanding of the transition from the Bronze Age to Iron Age and the life and culture of the Celts.

### ***Archaeology in Dutch History Education***

Despite the benefits for history education, archaeology is not included in the description of the core objectives for primary pupils and students in lower secondary education. Some archaeological concepts such as the dolmens in the North of the Netherlands and the Roman limes are included in the Dutch Canon of history. This historical-cultural canon with fifty events and persons from Dutch history was developed in 2007 by the commission Van Oostrom (2007) and is part of the core objectives in primary and secondary education.

Archaeology is also not mentioned in the formal history exam programme of upper secondary school students in the two highest Dutch educational tracks: general secondary education and pre-university education. Interestingly, archaeology is also not included in the formal exam programme of the subject geography in the two highest Dutch secondary educational tracks. In both formal exam programmes the terms 'archaeology' or 'archaeologist' do not occur (College voor Toetsen en Examens, 2020). Moreover, archaeology is not mentioned in the recent report of Curriculum.nu for the Humanities and Social Sciences learning domain which includes the subjects of history and geography (Curriculum.nu, 2019). This report is an advice for the future reform of the Dutch core curriculum in primary and secondary education.

### ***Research Question***

Despite the possible positive contribution of archaeology to master historical thinking among students, there is not much known about the role and implementation of archaeology in Dutch secondary history education. How archaeology is implemented in history textbooks might be a good starting question since most teachers use them in their classrooms. However, no analyses on the role of archaeology in Dutch history textbooks have yet been conducted. Previous Dutch textbook research focused, for example, on the representation of the Srebrenica massacre (Van Berkel, 2020), world history (Even-Zohar, 2007; Huijgen et al., 2014), national narratives in Dutch and English history textbooks (Van der Vlies, 2014), and on the quantity and quality of photographs in Dutch history textbooks (Kleppe, 2013). Therefore, we formulated the following explorative research question: What is the role of archaeology in Dutch secondary education history textbooks?

## Methods

### *Research Context: Education in The Netherlands*

Dutch children around the age of four start with primary education for eight years. Children with special educational needs can follow special primary education. They are taught different subjects like math, Dutch, English, and creative expression. Furthermore, primary school students follow social and environmental studies, including history and geography, which are ever more often integrated in a thematic approach, named world orientation (Béneker et al., 2020). The last survey on history teaching in primary school showed that history is mostly taught as a single subject for an average of 1 hour a week (Wagenaar et al., 2010). Most teachers use a history textbook that they strictly follow, sometimes supplemented with online materials (De Groot-Reuvekamp et al., 2014). Furthermore, about 20 percent of the schools integrate history within a thematic approach for social studies (Wagenaar et al., 2010; Dutch Inspectorate of Education, 2015). This trend seems to be continuing. A small study among 55 primary schools showed that about 50 percent of the participating primary schools integrate history in a thematic approach for world orientation (De Groot-Reuvekamp, 2019).

Around the age of 12, students attend secondary education. In the Netherlands, they can choose between vocational education (four years), general secondary education (five years), and pre-university education (six years). There is also an option to follow special secondary education. Primary schools advice on which secondary education track is the best fit for the student. They do so on the basis of a formal test and an estimation of the student's competencies. In general, all students follow the same subjects, like Dutch language, English, math, geography, and history in the first years (lower secondary education). After these years, students move to upper secondary education.

In this study, we focus on the highest Dutch educational track: pre-university education. Students finish pre-university education with a national exam in May for all subjects that they follow. The national exam counts for 50 percent for the final subject grade and the average school exam grade (often based on three or four school exams) also counts for 50 percent. Around 60 percent of all pre-university students take part in the national history exam. Most pre-university students receive two or three history lessons (at an average of 50 minutes) per week. The national history exam last for 180 minutes and is assessed by the history teacher of the school and by a history teacher from another school (to promote assessment validity).

The formal history curriculum for pre-university students consists of historical thinking competencies such as examining and evaluating historical sources,

contextualizing historical events, and determining causality. Moreover, an overview framework comprising ten historical eras and 49 'historical content windows' should be used by students to orient themselves in time. These content windows are called 'characteristics'. For example: the second era, called the *Time of the Greeks and the Romans* comprises five content windows: 1) science and politics in the Greek polis, 2) the Roman Empire, 3) the Greek-Roman culture, 4) the conflict between Romans and Germans, and 5) the origin of Judaism and Christianity. Besides the historical thinking competencies and the ten historical eras, four historical topics were added for pre-university education: The Dutch Republic between 1515 and 1648, the Enlightenment and the Democratic Revolutions between 1650-1848, Germany between 1871 and 1945, and the Cold War between 1945 and 1991. In 2022 these topics will change to Cities and citizens in the Low Countries between 1050 and 1700, the Enlightenment between 1650 and 1900, China between 1842 and 2001, and the role of Germany in Europe between 1918 and 1991.

## **Research Design**

To answer our research question, we selected two widely-used Dutch history textbooks for the first year of pre-university education and performed a horizontal textbook analysis to compare both textbooks (Nicholls, 2003; Pingel, 1999). We chose the first year of pre-university education because this year covers extensively the historical periods of the prehistoric world, the Ancient Greek world, and the Roman Empire. A coding scheme was designed to conduct the analysis. No vertical textbook analysis was conducted since we were not interested in how the concept of archaeology was represented in textbooks over time (Pingel, 1999). We focused on the period until 500 AD because later periods in both textbooks deal only marginal with archaeological findings.

## **Sample**

The educational textbook market in the Netherlands is an open market. Companies and institutions have the possibility to develop and design educational textbooks. Most history textbooks closely follow the learning content as stated by the formal history curriculum. Schools have the freedom to choose a textbook and most times this decision is made by the teachers. There are four large educational publishers for history textbooks in the Netherlands (between brackets the textbook titles): ThiemeMeulenhoff (Feniks), Noordhoff Uitgevers Bv (Geschiedeniswerkplaats), Malmberg (Memo), and Walberg Pers Educatief (Sprekend Verleden). Recently, different publishers published new history textbooks, such as Boom (Forum) and Blink (Saga). Moreover, VO-digitaal N.V. published an entire online history textbook (Tijd voor Geschiedenis). We selected the two most used textbooks in the two highest



secondary educational tracks in the Netherlands: *Feniks* and *Geschiedeniswerkplaats* (Van der Kaap, 2014). We focused on the textbooks for the first year of pre-university education when students have an average age of 12.

The textbook *Geschiedeniswerkplaats* (third edition, 154 pages) covers the following historical topics in six chronological chapters: Hunters and Farmers, Ancient Egypt, The Greeks, The Romans, Monks and Knights, and Cities and States. In the analysis, we focused on the first four chapters (until 500 AD). Each chapter starts with a short introduction, a timeline and a geographical map to situate the historical events. All chapters end with an overview of the most important substantive concepts and historical dates. Furthermore, each paragraph comprises learning goals and a summary of the most important topics. At the end of the textbook an overview of the relevant historical eras and ‘characteristics’ is presented as well as an overview of historical thinking competencies.

The textbook *Feniks* (second edition, 136 pages) also consists of six chronological chapters covering the following historical topics: Hunters Become Farmers, The Greek World, The Roman Empire, The Franks: Violence and Religion, Kings and Crusades, and The Renaissance in Florence. In the analysis, we focused on the first three chapters (until 500 AD). Each chapter comprises six paragraphs. The first four pages of each chapter consist of an introduction to the topic. Historical competencies are described in paragraphs in separate textboxes. Each chapter presents a main question and the paragraphs comprises sub questions. Some paragraphs include extra lesson material. Each chapter ends with an overview of the ‘characteristics’, a timeline, the most important substantive concepts, a geographical map, and the learning goals. At the end of the textbook an overview of historical thinking competencies and main substantive concepts is presented. Furthermore, the small geographical maps of each chapter are situated at a large world map.

### ***Coding Scheme and Analysis***

We developed a coding scheme using open coding (e.g. Given, 2008), comprising a quantitative and qualitative component to analyse both textbooks (see Tables 1 and 2). The quantitative (frequency) analysis was performed on the included sources of both textbooks. We formulated four source categories that display or describe (1) excavation or archaeological research, (2) archaeological or heritage sites including archaeological museums, (3) archaeological objects including primary sources such as mosaics, wall paintings, and statues, and (4) cave paintings as primary and secondary sources (see Table 1 for examples for each category). *Feniks* comprises visual and written sources while *Geschiedeniswerkplaats* contains only visual sources in the chapters analysed.

The qualitative analysis focused on the learning text of both textbooks and comprises three categories. The first category focuses on which important archaeologists are introduced while the second category focuses on the presented definitions regarding archaeology. The final category examines archaeological historical thinking by asking two questions: (1) Are the importance and limitations of archaeological research discussed?, and (2) Which components of different historical thinking frameworks such as determining change and continuity and examining historical evidence (e.g. Lévesque, 2008; Seixas & Morton, 2013; Van Boxtel & Van Drie, 2018) are explicitly included regarding archaeological research?

## Results

### Quantitative Analysis

In Table 1, we present the results of the quantitative analysis including examples of each category. *Geschiedeniswerkplaats* displays four sources regarding excavations or archaeological research while *Feniks* includes only two sources in this category. *Feniks* includes also fewer sources of archaeological or heritage sites. *Geschiedeniswerkplaats* presents far more archaeological objects in sources and contains five sources with cave paintings displayed, whereas *Feniks* includes only one source, picturing a vague cave painting. Most sources in both textbooks display archaeological objects, followed by sources displaying archaeological or heritage sites.

| Category                                | Geschiedenis-<br>werkplaats<br>(N = 152) | Examples   | Feniks<br>(N = 94) | Examples  |
|---|--|--|--------------------|---|
| Excavations/<br>archaeological research | 4 (2.6%)                                 | Discoverers of Lascaux; Scientists prepare a clay statue.                | 2 (2.1%)           | Minister presenting a part of a human skull; Archaeological research on dolmens.      |
| Archaeological/<br>heritage sites       | 23 (15.1%)                               | Pyramids near Cairo; Pompeii; Dolmens; Luxor; Archeon museum.            | 10 (10.6%)         | Mesopotamia; Dolmens; Acropolis; Petra; Pont du Gard; Ziggurat of Ur; Djoser pyramid. |
| Archaeological objects                  | 74 (48.7%)                               | Remains of Lucy; Prehistoric axe; Trunk canoe; Boat of Cheops; Tomb lid. | 31 (33.0%)         | Grave gifts; Headdress; Golden mask; Athenian pitcher; Hoplite statuette.             |
| Cave paintings                          | 5 (3.3%)                                 | Lascaux in cartoon; Algerian cave painting.                              | 1 (1.1%)           | Drawing of Neanderthal cave.  |

**Table 1.** Quantitative textbook analysis (N = number of total sources in a textbook).

## Qualitative Analysis

Secondly, we performed a qualitative analysis to examine the text in both textbooks in more detail (see Table 2). *Geschiedeniswerkplaats* presents two important archaeologists. In the first chapter Henri Breuil, who investigated Lascaux, is introduced and displayed in a picture. In the second chapter Howard Carter is displayed with an accompanying description of the discovery of the tomb of Tutankhamun. In the introduction of the second chapter *Feniks* presents Henrich Schliemann who did several successful excavations around the Greek city of Troy. The definitions of archaeologists slightly differ in the two textbooks (see Table 2). *Geschiedeniswerkplaats* also defines experimental archaeology in contrast to *Feniks*.

| Category                           | <i>Geschiedeniswerkplaats</i>  | <i>Feniks</i>   |
|------------------------------------|--|---|
| Archaeologists                     | Henri Breuil<br>Howard Carter  | Heinrich Schliemann   |
| Definitions                        | Archaeologist = Someone who does excavations and study the results of these excavations.<br><br>Experimental archaeology = Examining the past by trying something. | Archaeologists = Scientists who examine the life of humans by doing excavations.  |
| Archaeological historical thinking | <ul style="list-style-type: none"> <li>– Importance</li> <li>– Limitations</li> <li>– Historical evidence</li> <li>– Change and continuity</li> </ul>              | <ul style="list-style-type: none"> <li>– Importance</li> <li>– Limitations</li> <li>– Historical evidence</li> <li>– Change and continuity</li> <li>– Historiography</li> </ul> |

**Table 2.** Qualitative textbook analysis.

Subsequently, we looked into how archaeological historical thinking was presented in both textbooks. In the first paragraph, *Geschiedeniswerkplaats* presents the discovery of Lascaux and stresses the importance of this archaeological finding for our knowledge of the past and of the life of the Cro-Magnons. Limitations of archaeological findings are also presented, for example that we do not know why the Cro-Magnons made these paintings. Archaeology is also actualized by describing how tourists find their way to the Lascaux museum and experience.

*Geschiedeniswerkplaats* also illustrates that archaeological findings of human bones can provide information about the human evolution and that an ivory French figurine can provide information about historical climates (ice ages). In a text about examining the life of hunter-gathers the importance of archaeology and experimental archaeology is explicitly stated by *Geschiedeniswerkplaats*. Moreover, a description of an excavation near Bergschenhoek shows that we know that around 4300 BC hunter-gathers lived in that specific area. *Geschiedeniswerkplaats* also shows that

archaeological findings such as drawing also provide information about the life and culture of hunter-gathers.

A text also illustrates that archaeological findings (remnants of a village) provide insights into the preparation of food by farmers and in the structure of the village. Moreover, a different example of an excavation near Rotterdam provides insight into the origins of farming. The first chapter ends with a description of an excavation in 1997 of a woman's body which dated back to 5500 BC and whose burial was compared to how people were buried 2000 years later in Dolmens.

*Geschiedeniswerkplaats* also mentions that Dolmens could provide information about the level of technology and that statuettes (Mannetje van Willemstad and Danseres van Geldrop) can reveal insights in the religion and behavior of people. By comparing different excavations that focus on grave gifts, *Geschiedeniswerkplaats* shows that hunter-gathers had an egalitarian society in contrast to an agricultural society that would have more social stratification. Moreover, archaeological research also showed that more than 10,000 years ago dogs and humans were buried together.

In the chapter about Ancient Egypt the discovery of the tomb of Tutankhamun by Howard Gardner is described. The text also describes one of the first writings (Palet van Narmer) and the archaeological finding of a boat in the pyramid of Cheops. *Geschiedeniswerkplaats* notes that the detailed drawings in the pyramids result in knowledge about life in Ancient Egypt. Egyptian social stratification can be noticed in drawings, remains of houses, and their type of burying. *Geschiedeniswerkplaats* also presents the archaeological findings of Deir el-Medina, an Egyptian village. These findings provide important insights into the life of the villagers. Moreover, the excavations of Luxor provide proof that a pharaoh had done something evil as his name was scraped away.

To illustrate the polytheistic religion of the Greek, *Geschiedeniswerkplaats* describes the archaeological finding of a bronze statue. Also, it discusses why there are not many Greek statues preserved but due to the later Roman copies, we can get an image of the original Greek statues and paintings.

Archaeological research also shows how the city of Rome developed. Hadrian's wall is named to illustrate the Roman limes. The excavation of Pompeii portrays that due to archaeological research we know a lot about Roman urban-agricultural society. The finding of a Roman tombstone is described to illustrate the Roman multicultural society. A sacrificial stone found in the Netherlands indicates Roman influence in the Netherlands.

In the introduction of the first chapter, *Feniks* describes how by doing archaeological research in Spain we know that Neanderthals buried their people in a specific way.

Moreover, in the same introduction *Feniks* describes how archaeological research changed the image of Neanderthals from ape-like and violent creatures to a more human-like image. *Feniks* states explicitly that comparing archaeological findings can help us to research the past because there are no written sources from Neanderthals. To illustrate that Neanderthals could speak, an archaeological finding in Israel is described (hyoid bone). A textbox on page 13 states the following: “Archaeologists are looking for traces of human remains during excavations. With the help of primary sources, they can reconstruct the past of the first people.” Archaeological findings are also presented to describe the first people living in the Netherlands. Moreover, *Feniks* mentions that archaeological findings, such as trunk canoes, fish traps, and cave painting can reveal how hunter-gathers thought and behaved. *Feniks* stresses that archaeologists can differ in opinion regarding the meaning of cave paintings.

*Feniks* also describes that a society might have become an agricultural society from the time when archaeologists find fewer hunting tools. Furthermore, *Feniks* describes that archaeologist findings regarding discoloration in the ground lead to reliable reconstructions of farms and that grave gifts can provide insight in farmers’ life. Archaeologists also discovered that around 4900 BC settlements in the South of Netherlands were abandoned and that hundreds of years later new agricultural societies were founded. *Feniks* also actualizes archaeological research by mentioning that there is still archaeological research going on, focusing on the Dolmens. *Feniks* also states that archaeological research regarding grave gifts, temples, mummies, and pyramids provide insights in the Sumerian and Egyptian society.

When presenting Heinrich Schliemann, *Feniks* mentions the archaeological finding of five death masks. The textbook also mentions that he has made mistakes but emphasizes his important role for archaeology and the examination of the Trojan War. Moreover, *Feniks* illustrates that through archaeological findings we know that judges in Ancient Egypt were Greek. *Feniks* also introduces archaeological findings (amphitheaters) near Nijmegen, Xanten, and Cologne to illustrate the Roman influence in the South of the Netherlands. Archaeological findings also illustrate that the Franks served in the Roman army that was stationed in the Netherlands and that Germanic farmers lived in Dutch rural areas. *Feniks* stresses explicitly that archaeological findings cannot tell us if these farmers were free men or slaves.

## Conclusion and Discussion

The aim of this study was to explore the role of archaeology in two history textbooks. *Geschiedeniswerkplaats* includes more archaeological sources in absolute and relative calculations than *Feniks*. In both textbooks most sources display archaeological objects, followed by sources displaying archaeological or heritage sites. Both textbooks introduce famous archaeologists (two in *Geschiedeniswerkplaats*, one in *Feniks*) and present a definition of the term ‘archaeologists’. *Geschiedeniswerkplaats* also defines the term ‘experimental archaeology’ in contrast to *Feniks*. Archaeological historical thinking can be found in both textbooks. Both textbooks describe the importance of archaeological research and the limitations. Most attention is given to presenting archaeological findings as historical evidence that help to gain knowledge of historical events and agents’ actions. Moreover, both textbooks use archaeological findings to discuss historical change and continuity. *Feniks* describes also explicitly the historiographical change in the image of Neanderthals based on archaeological findings. The quantitative and qualitative analyses indicate that archaeology plays an important role in the analysed chapters.

Our analyses indicate that most attention is being paid to how archaeological findings could help historians and students to learn about the societal, economical, and technological circumstances of different historical periods. Despite that some historical meta-concepts such as change and continuity are combined with archaeological principles, it would be interesting to see how other unidentified components of historical thinking frameworks such as historical significance, empathy, multiperspectivity, and students’ epistemological beliefs (e.g. Van Boxtel & Van Drie, 2018) can be combined with archaeological principles. Research of, for example, Efstathiou et al., (2018) who focused on location-based augmented reality to develop students’ historical empathy and conceptual understanding might be helpful.

This explorative study contains different limitations. We only included two textbooks from the first year of pre-university education and analysed only the first three of four chapters (until 500 AD). We also excluded Dutch textbooks that combine subjects like history, geography, and economics. Moreover, we did not include the separate books that include student’ assignments and the online learning environment of both publishers in our analyses. Future research could also focus on what history teachers actually do in history classrooms regarding archaeology and what they think about using archaeology in their lessons. Semi-structured interviews and classroom observations might be useful instruments to examine these topics. Moreover, further research is needed to validate our quantitative and qualitative analysis scheme and to review interrater agreement which we did not examine in this explorative study.

To conclude, Smardz and Smith (2000) argue that archaeologists might not be the best teachers of their own concepts and methods because they do not have formal training in teaching. Rather, archaeologists need to “*Learn what teachers need and what they can use as teachings methods and materials*” (Smardz & Smith, 2000, p. 30). To move forward, collaboration between history teachers and archaeologists is indeed highly needed and the development of an archaeological historical thinking framework which includes educational design principles might be a good starting point.

## Note

This research was approved by the Ethical Commission of the Department of Teacher Education of the University of Groningen (TED-1920-S-0007).

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## IMPORTANCE OF ARCHAEOLOGICAL SOURCES IN INTRODUCTORY CHAPTER OF HISTORY TEXTBOOKS FOR ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA

### Abstract

The first chapter of Slovenian history textbooks for elementary and secondary schools contains an introduction to history, which describes the historical science and familiarises students with various historical sources, their origins and their significance for our knowledge of the past. In Slovenia, historians and consequently also the authors of history textbooks divide historical sources into three types: material, written and oral sources, some also add a fourth type, i.e. audiovisual sources. This paper aims to present the findings regarding the extent to which the introductory chapter of history textbooks highlights the importance and role of archaeological sources in the study of history. For this purpose the history textbooks that contain an introductory chapter have been analysed, namely textbooks for elementary schools for the first year of history class, and in secondary schools likewise the textbooks for the first year of history class. It has been established that elementary school textbooks place greater emphasis on archaeological sources, on the work of an archaeologist, and on archaeology than secondary school textbooks, since a larger number of elementary school textbooks devotes an entire unit to archaeological sources or contains more content relating to archaeological sources. As history students in teacher training recommended, we also suggest that Slovenian history textbooks could focus more on visual material, descriptions of archaeological sites and finds, and encouraging students to study and explore archaeological sources.

**KEY WORDS:** ARCHAEOLOGICAL SOURCES, MATERIAL SOURCES, TEXTBOOKS, HISTORY, INTRODUCTION TO HISTORY, ELEMENTARY SCHOOLS, SECONDARY SCHOOLS, SLOVENIA.

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## IMPORTANCE OF ARCHAEOLOGICAL SOURCES IN INTRODUCTORY CHAPTER OF HISTORY TEXTBOOKS FOR ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA

### Introduction to Historical Sources

In the introductory chapter, the authors of history textbooks for the 6th grade of elementary schools (pupils aged from 11 to 12) have written the following: *“The past before the invention of writing can be discovered through material sources that are often hidden below ground.”* (Rode, Tawitian & Galonja, 2016, p. 14). *“Material sources are objects that people once used ... When studying history, historians often cooperate with archaeologists.”* (Bregar Mazzini, Oblak & Roudi, 2016, p. 19). *“Archaeological finds are the remains of buildings, vessels, weapons, jewellery and tools. Without them we could not learn about the life and work of people in prehistory, when writing had not yet been invented.”* (Janša-Zorn, Kastelic & Škraba, 2004, p. 68).

The introductory chapter of Slovenian history textbooks includes an introduction to history, in which pupils and students learn about history, what history teaches, the types of traces of the past, the types of historical sources, who houses historical sources, why the first writing was created, how a historical work is created, etc.

Elementary school textbooks most often divide historical sources into three types: material, written and oral, or into four different types: written, material, oral and audiovisual. Secondary school textbooks use different definitions; the sources are usually divided into three groups based on their characteristics: material, written and oral sources, or into four groups of sources. One example is the division into material, non-material, written and audiovisual sources, while another example is the division into written, material, oral and audiovisual sources.

The history textbooks state that material sources, especially those from the oldest periods, are researched by a special science called archaeology, and they classify archaeology among other sciences that help historians.

In Slovenian history textbooks for elementary and secondary schools archaeological sources are important under the topic of prehistory; a great deal of visual material and tasks are given in the presentation of prehistory in the territory of present-day Slovenia, followed by the topic of Antiquity when discussing the first civilizations (Mesopotamia, Ancient Egypt, China), ancient Greeks and Romans, whereas the topic of the Middle Ages mentions archaeological sources more when discussing the Slavs.

The main purpose of the paper is to evaluate the role and importance of material sources in the introductory chapter or introduction to history of individual history textbooks published by different publishing houses in Slovenia; namely for the 6th grade of elementary schools (pupils aged from 11 to 12), when pupils are taught the independent subject of history for the first time, and for the first year of secondary schools (students aged from 15 to 16) where the textbooks include material sources in the introductory chapter. The paper especially aims to determine the extent to which archaeological sources are highlighted, and which pictures, tasks or questions relating to archaeological sources are included in the introductory chapter of textbooks. It is also interested in the opinion of history students trained for the teaching profession at the Faculty of Arts about the importance and use of archaeological sources in the subject of history in elementary and secondary schools in Slovenia.

## **Role and Use of Archaeological Sources in Introductory Chapter of History Textbooks for Elementary Schools**

In elementary school the history textbooks mention material sources in the 6th grade (pupils aged from 11 to 12).

The history textbooks for the 6th grade state that material sources include material remains or objects that were created by humans and used in their daily lives (Otić, 2006, p. 8; Verdev, 2016a, p. 11; Verdev, 2008, p. 4). The textbooks state that older material sources are discovered and studied by archaeologists, while younger sources are also studied by historians (Verdev, 2016a, p. 11; Verdev, 2008, p. 4).

Two history textbooks for the 6th grade, published by the same publishing house, write about material sources the most, devoting an entire learning unit (one class period) to them.

The learning unit of **the first textbook from 2004** is entitled *Material Sources Tell Us about the Past* and contains the following contents: *Traces of the Past, What Are Material Sources?, How Were Material Sources Created?, Archaeologist Discovers and Researches Material Remnants of the Past* (Rode & Tawitian, 2004, p. 11).

The unit states that “*Archaeology researches ancient cultures and an archaeologist is a scientist that researches ancient artefacts. The archaeologist looks for material sources and uses them to compile a story about the older periods of human history. The archaeologist is vital especially for those periods for which no written sources exist.*” (Ibid.). The unit also explains what a modern archaeologist is like: “*The modern archaeologist no longer resembles a treasure hunter. They are interested in fragments of pottery; they examine insects, plants and larger animals. They use these data to compile an image of the daily life of people in a specific period. Excavation is just the beginning of*

*an archaeologist's work. It is followed by a careful examination of the finds, the making of sketches and notes, and a comparison with the existing findings. The archaeologist's work ends with publication in a book or an exhibition at a museum. Thus opening up another window to the past."* (Ibid.).

The learning unit of **the second textbook from 2016** is entitled *Which Are the Oldest Traces of Humankind?* and has three subheadings: *How Do We Know What Happened in the Past?*, *What Are Material Sources?*, *Who Studies Material Sources?* Under the subheading *Who Studies Material Sources?* the textbook points out archaeologists: *"Experts who search for material sources and use them to discover how people lived in the past are called archaeologists. Archaeologists aim to discover as many different types of material sources as possible, which tell a great deal about how people lived in the past. By studying material sources archaeologists attempt to compile the most complete image of people's lives in the past – their daily routines, values, relationships, knowledge, beliefs, customs, chores ..."* (Rode, Tawitian & Galonja, 2016, p. 13). This textbook is special because it contains an additional text about the work of an important Slovenian archaeologist Ivan Šprajc, who is world-famous for researching ancient cultures in the territory of present-day Mexico. He led research expeditions in the central part of the Yucatán Peninsula, where he discovered numerous Mayan archaeological sites (Ibid.).

It should be pointed out that this textbook devotes a great deal of attention to archaeological sources, dedicating an entire learning unit (or one class period) to archaeologists. The learning unit entitled *What Do Archaeologists Do?* contains four subheadings: *What Are Archaeologists Interested in?*, *How Does an Archaeologist Begin Work?*, *How Do Excavations Take Place?*, *What Do They Do with the Excavated Artefacts?* (Ibid., pp. 14-15). The textbook gives a thorough description of how archaeologists prepare for digs; how they make use of computers, satellite and aerial photographs; how they pinpoint the excavation site; why excavations proceed slowly and carefully; which tools archaeologists use; how they photograph and record the site; and how they secure it (Ibid.). *"An archaeologist has much work to do before starting the excavation in order to determine where to search for the artefacts in the first place. Even though finding traces of the past might receive much media attention it is in fact just the beginning; it is followed by examining the finds, making sketches and notes ..."* (Ibid., p. 14). It is important that the textbook also points out what archaeologists do with the finds afterwards: *"The excavated artefacts are cleaned and examined in a laboratory – their purpose and age are determined ... and in the end they are protected and stored. Some artefacts and buildings are also reconstructed. That can take months or even years. Archaeologists describe their findings in professional journals and present them at expert meetings. They also write popular science articles or prepare an exhibition to present the excavated artefacts and their findings to the broader public."* (Ibid., p. 15).

The 2016 textbook for the 6th grade from a different publishing house devotes much attention to archaeology under the learning unit *How We Learn about the Past*, or more precisely under the first subheading *Working with Historical Sources*. This textbook is also special because it contains four sources and questions about these sources, which inquire about the work of a Slovenian female archaeologist Irena Šinkovec and how the discoveries made by archaeologists can help a historian to research the past (Bregar Mazzini, Oblak & Roudi, 2016, pp. 16-18).

Only a few elementary school textbooks contain questions related to archaeological sources. For example, using different sources, pupils try to find out what archaeologists do, how they can use aerial photographs, why they make sketches of the site and why it is important that archaeologists prepare exhibitions (Rode, Tawitian & Galonja, 2016, p. 15).

The history textbooks for elementary schools contain in the introductory chapter a greater amount of visual material so the pupils can imagine famous archaeologists (Ivan Šprajc, Irena Šinkovec) e.g. working, digging, or working in a museum (Rode, Tawitian & Galonja, 2016, pp. 13-14; Bregar Mazzini, Oblak & Roudi, 2016, p. 16; Verdev, 2016a, p. 10; Verdev, 2008, p. 4; Janša-Zorn, Kastelic & Škraba, 2004, p. 9; Janša-Zorn, 2003, p. 3; Otić, 2006, p. 8; Janša-Zorn & Mihelič, 2001, p. 4). Most of the photographs show Slovenian and world-wide archaeological finds, sites or aerial photographs of archaeological remains.

| History Textbook            | Description of archeological sources or archaeology | Mention of archeological sources or archaeology | Presence of photos on archaeology | Presence of questions on archaeology |
|-----------------------------|---|---|-----------------------------------|--------------------------------------|
| Bregar Mazzini et al., 2016 | +   | +   | +                                 | +                                    |
| Janša-Zorn & Mihelič, 2001  | -   | +   | +                                 | -                                    |
| Janša-Zorn, 2003            | +   | +   | +                                 | -                                    |
| Janša-Zorn et al., 2004     | +   | +   | +                                 | +                                    |
| Otić, 2006                  | -   | +   | +                                 | -                                    |
| Rode & Tawitian, 2004       | +   | +   | +                                 | -                                    |
| Rode et al., 2016           | +   | +   | +                                 | +                                    |
| Verdev, 2008                | +   | +   | +                                 | +                                    |
| Verdev, 2016a               | +   | +   | +                                 | +                                    |

**Table 1.** Importance of archaeological sources in introductory chapter of elementary history textbooks.

## Role and Use of Archaeological Sources in Introductory Chapter of History Textbooks for Secondary Schools

As far as history textbooks for secondary schools are concerned, the introductory chapter in textbooks for the first year of general or technical secondary schools contains descriptions of material sources (the importance of history, what history studies, the importance of historical sources, when and where something happened, and how the historical ideas developed).

The history textbooks for general secondary schools state that material sources are the only witnesses to human activity and life for the period of prehistory, whereas written and oral sources are important for other periods (Brodnik, Jernejčič & Zgaga, 2009, p. 12; Berzelak, 2002, p. 9; Cedilnik et al. 2018, p. 12). The textbooks briefly explain that material sources are the various remains of objects created and used by humans in their daily lives. They mention buildings, tools, weapons, bones, jewellery, clothes, vessels, furniture, money, musical instruments, etc. (Brodnik, Jernejčič & Zgaga, 2009, p. 12; Brodnik et al., 2007, p. 17; Berzelak, 2002, p. 9; Berzelak, 2006, pp. 9-10).

Some secondary school history textbooks classify archaeology among the auxiliary sciences of history (Berzelak, 2002, p. 14; Berzelak, 2006, p. 11), while others classify it among independent sciences on excavated artefacts, which help us to learn about the past (Cedilnik et al., 2018, p. 11). E.g. *“The development of archaeology and linguistics has enabled us to come to know the more distant past.”* (Cedilnik et al., 2018, p. 19).

The history textbooks point out archaeologists as those who discover, dig up and examine material sources (Brodnik, Jernejčič & Zgaga, 2009, p. 12; Brodnik et al., 2007, p. 17). *“Archaeology, same as history, deals with the life of people in the past. Whereas historians mostly conduct research using written sources, archaeologists dig up and research mostly material sources.”* (Cedilnik et al., 2018, p. 12).

The introductory chapter of secondary school textbooks on the importance of history does not contain many pictures showing archaeological digs or remains. One example is a photograph of the British archaeologist Howard Carter and a photograph showing the well-preserved artefacts he discovered in a room of the tomb of the Egyptian Pharaoh Tutankhamun. A question is added to this picture, asking the students to describe the artefacts and think about what these finds could reveal about the life and customs of ancient Egyptians (Brodnik et al., 2007, p. 17).

The history textbook from 2018 points out that modern historians have different types of historical sources at their disposal. *“When learning about the past they are derived from the findings of their predecessors, while new knowledge of the past is*



obtained through advances in archaeology, history and other sciences (e.g. with the help of astronomy, radiocarbon dating of the source) and with new finds (e.g. space archaeology).” (Cedilnik et al., 2018, pp. 19-20). The textbook gives an interesting active task for students: “Using satellite images on the website *GlobalXplorer* you can explore the landscape as a space archaeologist, thus helping to conserve the heritage of Peru.” (Ibid., p. 12).

The history textbooks for secondary general or technical schools contain no other descriptions of material and archaeological sources in the introductory chapter.

| History Textbook      | Description of archaeological sources | Mention of archaeological sources | Presence of photos on archaeology | Presence of questions on archaeology |
|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Berzelak, 2002        | +                                     | +                                 | +                                 | -                                    |
| Berzelak, 2006        | -                                     | +                                 | -                                 | +                                    |
| Brodnik et al., 2007  | +                                     | +                                 | +                                 | +                                    |
| Brodnik et al., 2009  | -                                     | +                                 | -                                 | -                                    |
| Cedilnik et al., 2018 | +                                     | +                                 | +                                 | +                                    |

**Table 2.** Importance of archaeological sources in introductory chapter of secondary history textbooks.

## Opinions of History Students on the Importance and Use of Archaeological Sources in Elementary and Secondary Schools

In the 2018/19 academic year 13 history students (future history teachers) at the Faculty of Arts (University of Ljubljana) were asked the following questions during the History Didactics course:

- What is their opinion on the importance of archaeological sources in the subject of history in elementary and secondary schools?
- In what way could pupils use archaeological sources during regular and out-of-school lessons in elementary and secondary schools?

The answers of all university students show that they believe that the sources support the learning of history. “If the pupils can actually see the artefact being discussed and even hold it in their hands, they will remember the subject matter better and everything connected with the artefact.”

They suggest that history teachers invite archaeologists or those who collect archaeological remains to attend regular lessons (in class), while the teachers could bring replicas of smaller artefacts so the pupils could touch them. The pupils could examine archaeological sources and write seminar, project or research papers.

As regards out-of-school lessons (outside a classroom or school), they recommend visits to museums, exhibitions and field trips. *“During out-of-school lessons the teacher could take the pupils to places where archaeological sources are located, e.g. to a museum or on a field trip, for which the teacher would prepare various tasks asking the pupils to research specific archaeological sources or write down what they remembered the most. They could also be given the task to visit a place near their home town that contains archaeological sources by themselves.”*

The history students at the Faculty of Arts are aware that teachers can show visual material in the classroom or describe archaeological sources, which is why they suggest that pupils see the archaeological finds in the immediate vicinity of their schools or in museums, and then thoroughly discuss them with the teacher at school. *“Archaeological sources can stimulate critical thinking in pupils as they analyse a specific artefact.”*

History students think that teachers should stress the great importance of archaeological sources for the present time and for future generations. *“Archaeological remains are a concrete example of our past.”* One student wrote: *“I believe greater emphasis should be placed on working with archaeological sources, because they bring history closer to the pupils and make lessons more interesting; moreover, it teaches pupils how to handle such sources, which is especially important for those who wish to pursue archaeology.”*

All students at the Faculty of Arts (University of Ljubljana) think that archaeological sources should be emphasized in the subject of history in elementary and secondary schools alike.

## **Conclusions**

All elementary and secondary school textbooks for history discuss material sources in the introductory chapter, where they mention different types of sources including material ones, namely in the 6th grade of elementary school (pupils aged 11 and 12) and in the first year of secondary school (students aged 15 and 16).

It has been established that elementary school textbooks focus more on archaeological sources, the work of an archaeologist, and the importance of archaeological finds for a historian, as some textbooks devote an entire learning unit to material sources, whereas one textbook even devotes an entire class period to archaeological sources alone.

It has been determined that secondary school textbooks highlight the importance of all historical sources in the introductory chapter, pointing out the development

and progress of archaeology and other sciences for the advancement of our historical knowledge of the past. *“The past is what humans have created with each moment of their existence throughout the millennia and with which they are inseparably connected. Knowingly or unknowingly, on our journey we are constantly encountering the creative output of those before us; we try to understand it, research it, sometimes forget it, or even destroy it.”* (Verdev, 2016b, p. 11).

We have found out that only one history textbook in the introductory chapter asks the students to adopt an active approach to archaeological sources by giving them the task to try out the role of an archaeologist (Cedilnik et al., 2018). Therefore, we suggest that Slovenian history textbooks for elementary and secondary schools could devote more attention to archaeological sources, archaeological finds and the importance of archaeological sites by providing descriptions and visual sources in the introductory chapter. In addition, they could also include tasks or questions that direct the pupils to study the archaeological sources in the immediate vicinity of their school and to become aware of the importance of material sources in the course of history, which was also suggested by history students at the Faculty of Arts (University of Ljubljana).

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## CONSTRUCTING ARCHAEOLOGY AS A SUBJECT IN THE SCHOOL CURRICULUM

### Abstract

In this chapter I examine arguments for and against teaching Archaeology in schools. I then present three possible models for offering it as a subject in the school curriculum. The first two examples were designed by curriculum authorities for secondary students in Australia and England. They are constructed as formal subjects to be taught over extended periods of time at senior secondary level. The third is a proposed model of integration with STEM/STEAM that responds to international recommendations for twenty-first century learning. I conclude by arguing that Archaeology offers students the perfect blend of knowledge and skills from the Sciences and Humanities. It is also a forum in which young adults can think as global citizens by examining ‘big picture’ questions about the past that impact the present as well as the future.

**KEY WORDS:** ARCHAEOLOGY, CROSS-CURRICULUM, CURRICULUM, HISTORY, INTERDISCIPLINARY, SCIENCE, SCHOOLS, SECONDARY, PEDAGOGY, STEM, STEAM.

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## CONSTRUCTING ARCHAEOLOGY AS A SUBJECT IN THE SCHOOL CURRICULUM

### Introduction

Like the Roman god Janus, Archaeology can have two faces: in some educational contexts it is a branch of the Humanities while in others it is considered a science. Archaeology's ambivalent nature can also be its strength when it is taught as a subject in the school curriculum because its knowledge and skills are diverse and versatile. It is also easily adapted to the interests and learning needs of children and adolescents.

For clarification, I use the term 'archaeology' (lower case) to refer to the knowledge domain and profession, and 'Archaeology' (upper case) for the curriculum subject constructed in schools and tertiary institutions. I acknowledge that many countries have seen the value of embedding some aspects of archaeology within their curricula (e.g. in Social Studies or History), but as British archaeology education specialist Mike Corbishley points out, it is often necessary to 'tease out' archaeology from their curriculum documents (2011). Many museums and archaeological sites provide high quality learning activities to support the study of archaeology in these school subjects.

The models I discuss in this chapter differ from these examples because Archaeology is constructed either as a substantial and integral part of a school subject, or it is constructed as a stand-alone subject in the curriculum; the subjects are also taught over an extended period of time (2 years), specifically at senior secondary level. The first model I describe has archaeology embedded within the subject of History/Humanities in Australia; the second is a stand-alone subject that has now been discontinued from the school curriculum in England; and the third model is a proposal for an integrated, cross-curriculum subject within the emerging learning area of STEM/STEAM. These models are considered within the broader context of Archaeology's origins in higher education.

In a world that is grappling with massive environmental changes and the disruptions caused by a deadly pandemic, it is becoming more obvious that scientific knowledge is increasingly necessary for our survival as a planet and as a species. Archaeology offered as a subject in the school curriculum has much to offer now and in the future because it relies on scientific methods to study the relationships between people and the environment in the past, at both macro- and micro-levels, in different geographical places and over deep time.

## Archaeology as an Academic Subject in Universities

Archaeology has been taught as an academic subject since the early twentieth century when universities in the United Kingdom and Europe and their former colonies began offering degrees in Classical Archaeology, Egyptology and Near Eastern/Biblical Archaeology based on excavations at 'Old World' sites in Greece, Italy and Egypt. The intellectual basis was, and still is, within the knowledge domain of the Arts/Humanities, and is closely aligned with the associated disciplines of History – particularly Ancient History – Geography, Art History, and Classical Languages. Over the years, Archaeology developed specializations such as Medieval Archaeology and Historical Archaeology that have become academic disciplines in their own right. North American universities have taken a different approach and classify Archaeology as a Social Science, or a 'soft' science. It is most often located in Anthropology departments and is broken down into the four sub-branches of Biological (or Physical) Anthropology, Linguistic Anthropology, Cultural Anthropology and Archaeology (also spelled 'archeology').

From the 1850s through to World War 2, archaeology was often used by European nation-states to define their perceived distinctiveness. It was also used in the first half of the twentieth century as hyper-nationalist propaganda by totalitarian regimes, with catastrophic consequences (Díaz-Andreu & Champion, 1996; Arnold, 2008). On the positive side, it has since become a powerful tool for decolonisation and empowerment around the world, both for newly independent nations and for indigenous peoples within multicultural states. These developments have led to more scrupulous attention to ethics in research and practice, and far better vocational training. More recently, particularly as a result of the influence of postmodernism, university courses worldwide have shifted from 'traditional' nineteenth-century socio-cultural or art-historical approaches to include archaeological theory and methods and practical fieldwork experiences at local, state and national sites to provide training for archaeology professionals.

In the context of schools, there are many examples of teachers and archaeologists in several countries who successfully engage students in learning about archaeology by providing activities that are additional to learning in the regular curriculum (See Glendinning, 2005; Owen & Steele, 2005; Henderson & Levstik, 2016; Coppersmith & Song, 2017; Vijand, 2018; Popson & Selig, 2019). These educators recognise that children and young adults can benefit from studying archaeology. When given the opportunity, students will enthusiastically participate in classroom activities, or in simulated or authentic excavations. There are a few extraordinary cases where archaeology has been more extensively and explicitly constructed as a substantial part of a formally structured school curriculum and it is these examples which I will highlight in this chapter.

## Reasons for Teaching Archaeology in Schools

### *Popular Appeal of Archaeology*

Although the focus of archaeology education remains in higher education, there are good reasons for teaching it as a subject in primary and secondary schools. It is an inherently attractive subject because it covers a wide range of chronological and geographical areas and topics. It also has the added appeal of mystery and adventure that has been conveyed in popular culture, through such things as the *Indiana Jones* and *Lara Croft: Tomb Raider* movies and video games, as well as more educational documentaries and television programs such as the long-running UK series *Time Team* (King, 2016). Archaeology offers students opportunities to interrogate and challenge many of the myths portrayed in popular culture. They are exaggerated and fanciful images of adventure and discovery in far-away places, which leave aside the practical realities of the systematic and detailed research carried out by academic and professional archaeologists who must comply with the demands of scientific rigour, heritage legislation and public policy (Nichols, 2006; Gómez Díaz, 2016). However, archaeology's inherent mysteries and investigative methodologies appeal to students' curiosity and sense of wonder, and they can be used to engage their interest and imagination and motivate their learning.

Many young children confuse archaeology with palaeontology at an early age through a fascination with dinosaurs. As a result, they often incorrectly think that archaeologists 'dig up dinosaurs' and 'study fossils', and do not understanding the differences between the work of an archaeologist and a palaeontologist, even when it is explained to them (Ducady et al., 2016; Gómez Díaz, 2016). This misunderstanding may be because in many children's books and popular television programs humans are shown interacting with dinosaurs. Teachers can use young children's fascination with dinosaurs as a hook to capture their interest and explain the differences between an archaeologist and a palaeontologist, between fossils and artefacts, to explain what archaeology is and the work that archaeologists do. Older children can work through the structured process of critically interrogating and debunking fanciful stereotypes of archaeologists and archaeology (Glendinning, 2005; Ducady et al., 2016; Arias-Ferrer & Egea-Vivancos, 2017).

### *Archaeology as Active Learning*

Archaeology involves students in active learning in a variety of ways: by participating in authentic or simulated excavations, hands-on learning in or out of the classroom, or by visiting museums or heritage sites. Active learning experiences like these meet the needs of visual, auditory and kinaesthetic learners. A tactile, sensory



experience can awaken a child's inquisitiveness and sense of wonder and give them an emotional link to the people who lived, worked and died at a site, or owned, made or used an artefact (Zarmati & Frappell, 2009; Ducady et al., 2016).

As preliminary research for the design of learning activities for Sydney's The Big Dig Archaeology Education Centre in 2009, we conducted focus groups with teachers to find out what they most wanted their students to experience during the visit. The majority of teachers said they wanted their students (and some said themselves) to 'be able to dig', especially because The Big Dig is an authentic archaeological site. Research has shown the impressive 'sticking power' archaeology has when children use inquiry methods to handle, examine and interpret artefacts; they are capable of remembering details many years after hands-on and kinaesthetic learning experiences (Hudson & Fivush, 1991; Henderson & Levstik, 2016).

### ***Factors Hindering the Teaching of Archaeology in Schools***

Although significant developments have taken place in the last few decades in archaeological research concerning modern and contemporary societies, many people, including educators and curriculum designers, still think that archaeology is only about 'ancient times', and that it is usually concerned only with the eras that occurred after the threshold of the introduction of writing. This prejudice reinforces what Ivor Noël Hume (1964) called the 'handmaiden to history' attitude which can still be seen in school textbooks that use photogenic images of archaeological sites and artefacts to simply illustrate 'Rise of Civilizations' historical narratives.

Mike Corbishley argues that "*education authorities and governments must adopt that broad view of the past which does not exclude periods arbitrarily*". He sees a problem with designating a 'starting date' and an 'end date' when teaching history (2011, p. 14). The period that seems to be most overlooked is 'prehistory', largely because it is devoid of written primary sources and therefore heavily reliant on archaeology. This bias towards written sources in the study of the past can have a negative impact on First Nations peoples when they are left out of historical narratives (deliberately or unintentionally) that promote progress and civilization.

### ***Just Another Type of History***

Naysayers argue that Archaeology is not needed because it is already taught in schools (for example, in Modern History or World History), so why add another subject just like it to an already overcrowded curriculum? This perception reinforces the narrow view that archaeology is not relevant to the recent past and overlooks notable examples where archaeology has contributed to a vast range of knowledge

from disparate modern times. Topics such as Conflict Archaeology (World Wars 1 and 2 and the Cold War) and, most recently, Space Archaeology, popularised by Alice Gorman – ‘Dr SpaceJunk’ of Flinders University in Australia – are demonstrably appropriate for studying our contemporary world (Moshenska, 2009; Gorman, 2019). They can be every bit as engaging for young people as ancient Egyptian mummies, Teotihuacan and the Terracotta Warriors of Xian.

The relevance of archaeology to Modern History was recognised in the Australian state of New South Wales in 2017 when it was included in the Year 11 Modern History Syllabus (NESA 2017). Students examine “*the contribution of archaeology and science, in developing our understanding of the past*”, and use archaeological evidence to study such topics as life in Sydney’s historic area of The Rocks during the nineteenth century, the nature of trench warfare in World War 1 and excavations of human remains at Fromelles (NESA, 2017, p. 29).

### ***Archaeologists Are Not Trained as Teachers***

Although the practice of archaeology has always required an educational component, it has only been in the last few decades that professional archaeologists have seen public education as an ethical and social responsibility. In 2000, Smardz and Smith called on professional archaeologists in America to engage more actively with the public and provide a “*consistent and complementary set of public education and outreach programs each aimed at different audiences ... nationally, as well as at the regional, state, and local levels*” (Smardz & Smith, 2000, p. 18).

Since then, professional archaeologists, museums and heritage sites in several countries have developed highly successful archaeology education programs for children and young adults that are specifically tailored to school curricula, use appropriate teaching and learning pedagogies and meet educational standards and outcomes. They are delivered in museums, archaeological and heritage sites, and often as outreach programs where archaeologists ‘take the show on the road’ to visit schools. (See Ducady et al., 2016; Arias-Ferrer & Egea-Vivancos, 2017; Van Vollenhoven, Harcombe & Scott, 2017; Fabjan & Stipančić, 2019; Poole, 2019; Zarmati & Frappell, 2019).

In some places, communication about excavation results in public forums and involvement of community members in the excavation process (especially where First Nations people are custodians) are mandatory outcomes of an archaeological research project. This is essential when members of the public are personally involved as landowners, sponsors, volunteers or have personal family connections to the site. However, difficulties can arise when archaeologists with no training in educational theory or pedagogy are expected to provide education programs for young

people. Their options are to engage professional educators to design and deliver learning programs, deliver public programs themselves, such as tours of excavations in progress, or overlook the requirement entirely.

American archaeology educator Dr Elaine Davis (2005) cautions that shortfalls in effective communication can occur when archaeologists, who are uninformed by contemporary learning theory and pedagogy, and educators who are masters of pedagogy but inexperienced in archaeology, are required to teach archaeology to school students.

### ***Teachers Are Not Trained as Archaeologists***

Few teachers have studied Archaeology or have been trained in archaeological field methods, either in their teaching degrees or for in-service professional learning. The ability to teach archaeology effectively, especially to children and adolescents, requires specific knowledge and pedagogical skills that intersect in many learning domains.

My experience in providing professional learning for teachers reveals that although they may know a great deal about famous archaeologists, sites, excavations and artefacts, teachers usually have limited knowledge of archaeological field methods and no experience of them. However, they are enthusiastic about learning and willing to participate in excavations outside work hours during their weekends and vacations.

In 2017, 2018 and 2019 I ran archaeology field schools in Tasmania that were attended by a total of 28 in-service teachers. The aim was to provide them with an authentic experience of excavation methods and practical workshops on how to use archaeology as a method of pedagogy (Zarmati, 2015). A senior history teacher who participated in a week-long archaeology professional learning program sent me the following email (2 March 2019):

*“Just a quick line to let you know that we have broadened our archaeology program. This week we held three [simulated] digs for our Year 9 History classes, including the training of one of our new teachers. We are also rolling out a Dig-in-a-Box for Year 7 in the next couple of weeks. Thanks again for the great in-service last year. It has changed the way we teach and increased the engagement of our students. To quote a very reluctant student, ‘Wow, I am actually enjoying History!’”*

This testimonial demonstrates the effectiveness of providing teachers with practical field experience and instruction on the pedagogy of teaching archaeology so they can set up their own (simulated) archaeological excavations when they get back to school.

In the next section I examine three possible models for constructing the subject of Archaeology in the school curriculum. They differ from the examples above that are additions (or ‘enrichments’) to regular sequences of learning. They are constructed as formal subjects that are taught over extended periods of time (two years) at senior secondary level and involve in-depth critical analysis of archaeological sources, theories and methods. The first two subjects were designed by curriculum authorities for secondary students in Australia and England. Both have been taught by teachers and are either assessed internally within schools or assessed externally through moderation in public examinations. The third is a proposed model of integration with STEM/STEAM that responds to OECD recommendations for twenty-first century learning.

It is important to add here that for any of these models to be successful, support is needed from both education authorities (especially those responsible for curriculum design, assessment, and reporting) and school administrators who are responsible for making adjustments to timetables and staffing to accommodate collaboration across subjects. Such changes should also be supported by teacher professional learning in both archaeological methods and integrated curriculum programming.

## **Archaeology Embedded within History – The Australian Curriculum**

The *Australian Curriculum* was developed from 2009 to 2010 and was implemented in schools across the nation from 2012. It is now managed at a federal level by the Australian Curriculum Assessment and Reporting Authority (ACARA, 2020). Prior to that, each state and territory had developed its own curriculum, which resulted in considerable disparity regarding knowledge and skills, standards and accreditation across the nation. Since 2012, some states, such as New South Wales, Victoria and Queensland have developed their own versions of the *Australian Curriculum* to suit their local content, standards and pedagogies, but in general they follow the national framework. Some archaeology topics are included in the subjects of History or Humanities in the *Australian Curriculum*.

There are a few examples where archaeology is explicitly mentioned in the curriculum document, for example in topics such as Australian Aboriginal Sites in Year 4 (ages 9-10), or in Year 7 (ages 12-13) ‘Investigating the Ancient Past’ in either ancient Egypt, Greece, Rome, India or China. In Year 8 (ages 13-14) archaeology may be included when studying the Vikings, the Angkor/Khmer Empire, or the Aztecs and Incas. In Years 9 and 10 (ages 13-15) the focus is on twentieth-century Australian History, with some opportunities to examine archaeological sources relating to warfare during World War 1. Whether or not archaeology is incorporated into these topics for these age groups depends on the knowledge, skills and interests of the teachers and their access to appropriate teaching resources.

## ***Archaeology Embedded in the Senior Ancient History Course (17 to 18 Years)***

Ancient History is taught as an elective in Years 11 and 12, the final two years of secondary schooling, and this is when students study archaeology topics in detail. States and territories may implement the *Australian Curriculum* version of Ancient History or modify it to fit their specific graduation certifications.

Students analyse and interpret written, visual and archaeological evidence in their investigations of four units that are taught over two years:

- Investigating the Ancient World;
- Ancient Societies;
- People, Power and Authority;
- Reconstructing the Ancient World.

Students utilise written and archaeological sources to develop content knowledge and procedural skills. Examples of topics specifically about archaeology are: Thera, Masada, Troy, Mycenae, Knossos, Pompeii and Herculaneum, Athenian Acropolis and Agora, Pyramids of Giza, Tomb of Tutankhamun, Tell-el-Amarna, Roman Forum, Hochdorf burial, Pasargadae, Susa, Persepolis, Lake Mungo and the study of ancient human remains.

The national course was modelled on Ancient History courses that have been popular elective subjects taught in the senior years in New South Wales and Queensland since the 1980s. The New South Wales course has had a long track-record of popularity and success that even generated a wave of ‘Pompeii-mania’ among students and teachers when the topic ‘Cities of Vesuvius: Pompeii and Herculaneum’ was made a mandatory study in 2006 (Zarmati, 2017). One strength of the course is its requirement for students to consider the ethical issues relating to the excavation of human remains and reconstructions and interpretations of sites and artefacts for political purposes. In the next section I describe the A-levels course that was taught as a stand-alone subject in the final years of schooling in England from 2001 to 2018.

## **Archaeology as a Stand-Alone Subject – England A-Levels in Senior Years**

In England, students encounter some archaeology in primary school when they learn about British prehistory. Senior students study examples of archaeology in the senior elective Ancient Civilisations and Ancient History courses. However, a more comprehensive and in-depth Archaeology course was recently taught in English schools. It was designed as a stand-alone subject for senior secondary students at AS Level (16-17 years) and A Level (17-18 years) and was taught in many schools in England from 2001. Unfortunately, it was cut from the curriculum at the end of 2016 and the last examinations were taken in 2018. The course was developed by AQA,

(formerly the Assessment and Qualifications Alliance), the independent examination board responsible for the specifications and examination of school subjects in England, Wales and Northern Ireland. This was an advanced, two-year course that allowed students to transition to an undergraduate degree at university. The course encouraged students to develop their interest in archaeology by developing knowledge and understanding across a broad range of topics, such as:

- the nature and types of archaeological evidence;
- archaeological techniques;
- how archaeological data are analysed and interpreted;
- how past human societies changed or stayed the same and the causes of those changes;
- the practice of responsible archaeology through the study of archaeological issues and debates in Britain and the wider world.

Students developed research skills by undertaking individual, independent archaeological investigations in depth and in breadth that required gathering, selecting, organising, translating and interpreting data; organising and effectively communicating their archaeological knowledge and understanding; developing critical thinking and arguments (UK Department of Education, 2016). It also provided practical knowledge and skills for vocational training.

The course was relatively popular. In 2012 just under 1000 students were awarded A-Level Archaeology in the UK and in 2014 the AQA described the subject as *'one of the most exciting on the curriculum'*. It was praised because the wide range of transferrable skills it taught opened pathways to diverse employment opportunities (CBA, 2016). According to Dr Dan Boatright, subject leader for Archaeology at Worcester Sixth Form College, what killed A-level Archaeology was not the content of the subject, but the narrowing of the curriculum caused by the lack of education funding: *"schools are being forced into a position where Archaeology and Anthropology just do not have a place, because History is more important in the league tables. /.../ The argument for removing Archaeology from the curriculum was that it was not a requirement to do Archaeology at university and so why should it exist?"* (Boatright, 2018).

Sir Tony Robinson, host of the long-running and award-winning archaeology television program *Time Team*, condemned the scrapping of Archaeology A-levels as 'a barbaric act' and over 6000 people signed an online petition calling for the subject to be saved. A spokesperson for AQA explained that the subject was discontinued because it was too specialised and did not have enough students to make it viable at an accreditation level (Weale, 2016), despite the fact that in 2016 more than 600 candidates sat the AS exams (Year 11) in Archaeology and 369 sat the A-level, with numbers remaining fairly consistent for the previous five years (Loughton, 2016).

The examples from Australia and England show that it is possible to design engaging Archaeology courses for the pre-tertiary curriculum. In the next section I explain how Archaeology could be constructed as an integrated subject that would incorporate content knowledge and skills from several existing subjects across the school curriculum, including the study of ethical dilemmas that integration in STEM/STEAM could address.

## **Archaeology Integrated across the Curriculum in STEM/STEAM**

Another possible way Archaeology could be taught in schools is as a STEM – or more precisely, a STEAM – subject, that is, as a subject integrated *across* the school curriculum. STEM stands for Science, Technology, Engineering and Mathematics; the ‘A’ is added to form STEAM, to include the Arts and Humanities, under the aegis of which sits the multifaceted subject of Archaeology.

The move towards STEM/STEAM education occurred in the early years of the twenty-first century in response to a measured global deficit in students studying Science, Technology, Engineering and Mathematics in the senior years – which was having an impact on recruitment into these professions. Most importantly, STEM/STEAM education has evolved into much more than a sum of the subjects in its acronym. It refers to “*a cross-disciplinary approach to teaching that increases student interest in STEM-related fields and improves students’ problem solving and critical analysis skills*” which should be part of ‘a balanced program of learning’ (Education Council, 2015, p. 5). This integrated, cross-curriculum approach comfortably accommodates the subject of Archaeology at any level of schooling because its inherent epistemology incorporates the knowledge domains of Science, Social Science and Humanities subjects, such as History and Geography.

### ***New STEM/STEAM Research in Australian Schools***

According to the OECD *Education 2030 Learning Framework* report, twenty-first century societies are changing rapidly and profoundly. Three global challenges have emerged that are having an extreme effect on individual lives: they are environmental, economic and social. The OECD report strongly recommends that students develop competencies so they can be future-ready to address these challenges. But of course, learning involves more than just the acquisition of knowledge and skills; “*it involves the mobilisation of knowledge, skills, attitudes and values to meet complex demands*” (OECD, 2018, p. 5). While disciplinary knowledge will continue to be important, the capacity to think *across* the boundaries of disciplines and ‘connect the dots’ will be a vital skill needed by future citizens. Young people should be able to master epistemic knowledge and to think like a mathematician, historian or

scientist, as well as acquire practical procedural knowledge, such as the ability to problem-solve and think critically and creatively (OECD, 2018).

According to Australian STEM education researcher Dr Jane Hunter from the University of Technology Sydney, “... *if the world’s problems are going to be solved or at least ameliorated in the future, societies need their citizens to be STEM- or STEAM-literate*” (2020, p. 14). Hunter argues that the best way to achieve this is to integrate STEM across the curriculum by removing discipline ‘silos’ through cross-, inter- and trans-disciplinary knowledges and processes. She acknowledges that the difficulties faced by schools attempting to bring the silos together is often due to the logistical challenges of timetabling.

Hunter presents three case studies of primary schools that have adopted various approaches to Integrated STEM extending STEM to STEAM by including the Arts and Humanities (Hunter, 2020). An integrated STEAM approach bridges the gap between subject silos that compartmentalise, separate, and disconnect knowledge. The advantage of integrated, cross-curriculum learning is that the barriers between subjects are broken down so that students see the ‘bigger picture’ and make connections between what they are learning.

Depending on how the subject of Archaeology is structured, topics – especially thematic studies – could provide students with the scope to engage with a wide range of substantive knowledge and procedural skills. The use of an inquiry learning approach would enable students (with some teacher guidance) to undertake their own investigations according to their own curiosity, interests and abilities so that they learn how researchers gather data, analyse, evaluate and develop interpretations about past societies (Murdoch, 2015; Zarmati & Frappell, 2019). Students could frame their own research questions about the ‘grand challenges for archaeology’ that are relevant today, such as “*What processes led to, and resulted from, the global dispersal of modern humans?*”, or “*How do humans occupy extreme environments, and what cultural and biological adaptations emerged as a result?*” (Kintigh et al., 2014, p. 880).

Table 1 below demonstrates the links between Archaeology topics and subjects that are ‘traditionally’ offered in schools.



| 'Traditional' school subjects  | Archaeology disciplines and techniques | Archaeology research topics                               | Representative places, objects and topics<br>*UNESCO World Heritage List |
|--------------------------------|--|---|--|
| Science(s)                     | Astronomy                              | Astronomically oriented ritual site                       | *Machu Picchu, Peru  |
|                                |  | Calendrical systems                                       | Aztec Sun Stone  |
|                                |  | Navigation  | Polynesian voyages   |
|                                | Biology: anatomy, genetics             | Human evolution   | Cradle of Humankind, South Africa  |
|                                |  | Preserved human remains                                   | Grauballe Man, Denmark   |
|                                |  | Forensic archaeology: war crimes                          | Srebrenica massacre graves, Bosnia                                       |
|                                |  | Domestication: animals for food, transport and fibres     | Pazyryk burials, Russia  |
|                                | Botany                                 | Domestication: food and fibre plants                      | Mawangdui Tombs, China   |
|                                |  | Human impact on environment                               | Holocene deforestation   |
|                                |  | Dendrochronology  | Sweet Track, UK  |
|                                | Chemistry                              | Analysis of early pigments                                | *Grotte Chauvet, France, 28,000 BCE                                      |
|                                |  | Embalming fluids  | Egyptian mummies   |
|                                | Geology                                | Earthquakes and volcanic eruptions                        | *Pompeii and Herculaneum, Italy  |
|                                |  | Mines   | *Hallstatt salt-mines, Austria   |
|                                |  | Quarries  | Mount Isa stone-axe quarries, Australia                                  |
|                                | Physics                                | Isotope detection of early diet                           | Ötzi, the Iceman, Italy  |
|                                |  | Laser techniques: Lidar<br>3D laser scanning of buildings | Survey of *Angkor, Cambodia<br>Mapping Gothic France                     |
| Ground Penetrating Radar (GPR) |  | Morrissey WWII internment camp, Canada                    |  |
| Radiocarbon dating             |  | Dead Sea Scrolls, Israel                                  |  |
| X-rays and palaeoradiology     |  | Tutankhamun mummy, Egypt                                  |  |
| Technologies                   | Design and manufacture                 | Lithics: stone tools and ornaments                        | Fengtian nephrite (jade), Taiwan   |
|                                |  | Carpentry   | *Pile-dwellings around the Alps  |
|                                |  | Fibre-manufacture and weaving                             | Andean textiles  |
|                                | Pyrotechnology                         | Ceramics, glass, metals                                   | Kangjigun kilns, South Korea   |
|                                |  | Metallurgy  | *Ancient ferrous metallurgy, Burkina Faso                                |
|                                | Mechanics                              | Crossbows   | *Terracotta warriors, China  |
| Mathematics/ numeracy          | Mathematics                            | Calculators   | *The Antikythera mechanism, Greece                                       |
|                                | Geometry                               | Spatial measurements and site layout                      | Pyramids at *Memphis, Egypt  |

| <b>'Traditional' school subjects</b>  | <b>Archaeology disciplines and techniques</b> | <b>Archaeology research topics</b>   | <b>Representative places, objects and topics<br/>*UNESCO World Heritage List</b>                                |
|---------------------------------------|---|--|---|
| <b>Engineering, design</b>            | Civic engineering                             | Roads and bridges  | *Qhapaq Nan Andean road system  |
|                                       | Architecture                                  | Stone and brick buildings  | *Parthenon, Greece  |
|                                       | Hydraulic engineering                         | Water distribution   | Roman aqueduct, *Pont du Gard, France   |
|                                       | Shipbuilding                                  | Maritime archaeology   | Oseberg Ship, Norway  |
|                                       | Wheeled vehicles                              | Carts and chariots   | Vinkovci, Croatia   |
| <b>Humanities</b>                     | Communities                                   | Public gathering sites   | Athenian Agora, Greece  |
|                                       |   | Arenas and theatres  | *Olympia, Greece  |
| <b>Social Studies</b>                 | Law   | Inscriptions on stone or metal   | Code of Hammurabi, Iran   |
| <b>Social Sciences</b>                | Religion                                      | Sacred natural sites   | *Uluru-Kata Tjuta, Australia  |
|                                       |   | Temples, churches and mosques  | Jerusalem Old City, Israel  |
|                                       |   | Monasteries  | *Nalanda Mahavihara, India  |
|                                       |   | Cemeteries and memorials   | Fromelles WW 1 cemetery, France   |
| <b>Behavioural Studies</b>            | Urbanisation                                  | City layout and development  | *Moenjodaro, Pakistan   |
| <b>Geography</b>                      | Agriculture                                   | Modified landscape   | *Budj Bim eel-fishing system Australia  |
|                                       |   | Field systems  | *Ifugao rice terraces, Philippines  |
|                                       | Trade systems                                 | Ports, roads, markets; Silk Roads  | *Samarkand, Uzbekistan  |
|                                       | Climate change events                         | Ice Age rise and fall of sea-levels  | Holocene landforms  |
| <b>Creative Arts</b>                  | Visual  | Interactive presentations and reconstructions; Design of interactive games and apps                | *Pompeii  |
| <b>Languages</b>                      | Language families                             | Determining human mobility with associated material and social culture, including new food sources | Austronesian (Southern Islands) spread from Taiwan to Madagascar, Indonesia and across Pacific to Easter Island |
|                                       |   | Depictions of games and athletes   | Minoan bull-leaping frescoes  |
| <b>Physical education and health</b>  | Sports  | Places of competition  | Mesoamerican ballcourts   |
|                                       |   | Food preservation  | Salt production; Olive oil presses; Cheesemaking sieves; Wine jars etc.   |
| <b>Food science technology</b>        |   |  |   |
| <b>Critical and creative thinking</b> | Logic   | Interpretation of archaeological evidence to determine function                                    | *Stonehenge   |

| 'Traditional' school subjects | Archaeology disciplines and techniques | Archaeology research topics                              | Representative places, objects and topics<br>*UNESCO World Heritage List |
|-------------------------------|--|--|--|
| Literacy and communication    | Writing on portable materials          | For trade, storytelling, religion and historical records | Epic of Gilgamesh clay tablets (1800 BCE)                                |
|                               | Writing on fixed supports              | Dedications, memorials (and graffiti)                    | Hadrian's Wall inscriptions, UK  |
|                               |  | Law  | Gortyn Great Code, Greece  |
|                               | Coinage                                | For propaganda as well as trade                          | Coins of Emperor Trajan (C2nd CE)  |

**Table 1.** Links between Archaeology topics and subjects that are 'traditionally' offered in schools.

Table 1 provides a broad range of topics that teachers could use to construct an intellectually stimulating and engaging Archaeology subject within a STEAM framework. Depending on the age, cognitive abilities and interests of the students, an inquiry- or project-based pedagogy could be used (see Bell, 2010; Murdoch, 2015). Both employ a constructivist methodology that facilitates student-centred research and enables students to develop essential twenty-first century capabilities, such as problem-solving and sophisticated communication skills using multimodal technologies.

By conducting their own archaeological research projects, students learn to design inquiry questions, conduct background investigations, create a research project, gather data, analyse archaeological sites and artefacts, critically evaluate evidence, propose an hypothesis, and draw conclusions and interpretations which they communicate to a variety of audiences. Most importantly, these learning capabilities are the same practical, real-world skills that archaeologists (and many other professionals) employ in their everyday work.

## Investigating Ethical Dilemmas in Archaeology

Students could also investigate some of the ethical dilemmas that archaeologists face, such as those concerning:

- Ownership' of the past;
- The excavation, collection, storage and display of human remains in museums and heritage sites;
- The impact of the collection of ancient human DNA for study on contemporary indigenous peoples;
- The antiquities trade;
- The repatriation of human remains and cultural artefacts to their place and communities of origin.

These issues tie in with global concepts of Civics and Citizenship and Values Education in Western democracies that promote student understanding and knowledge of principles and convictions that guide citizenship behaviour. They are standards by which particular actions are judged as good or desirable; they inculcate skills and dispositions so that students can enact particular values as individuals and as members of the wider community (Curriculum Corporation, 2010).

The OECD 2030 report reminds us that “*Education needs to aim to do more than prepare young people for the world of work; it needs to equip students with the skills they need to become active, responsible and engaged citizens*” (OECD, 2018, p. 4). Archaeology offers young people opportunities to not only explore ethical issues that faced people and communities in the past, but to also explore their own ethical beliefs about actions in the present and how they might impact the future.

## **Conclusion: Lessons from the Past to Inform the Future**

Like Janus, Archaeology looks both ways. It not only looks to the past but must also look to the future. The construction of Archaeology, especially as an integrated, cross-curriculum subject in the senior school curriculum, will encourage more young people to know and understand their cultural heritage so they can ensure it is conserved for future generations. Through the lens of tangible, material culture students, can gain insights into human diversity and changes in cultural phenomena that occurred in many places around the globe over many millennia.

By using Archaeology – its thinking and practices – young people can also investigate how societies in the past tackled the same ‘big picture’ questions that challenge us in the present and cause uncertainties about our future, such as climate change, pandemics, natural disasters, economic collapse and food security. In an era of fake-news, conspiracy theories and anti-science attitudes, supporting pre-tertiary students to critically examine and interpret empirical evidence has never been more important. Archaeology as a school subject presents a timely possibility.

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## **ROLE OF MATERIAL SOURCES (WITH EMPHASIS ON ARCHAEOLOGICAL SOURCES) IN HISTORY CURRICULA OF ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA**

### **Abstract**

The history curricula of elementary and secondary schools in Slovenia also include a compulsory topic on the importance of history and the remnants of the past, in which students learn about various historical sources. The aim of the paper is, on the one hand, to present the main findings of the analysis of history curricula with regard to the role of material and archaeological sources and, on the other hand, to analyse the data obtained by history teachers on the methods of including archaeological sources in history teaching. It has been established that elementary school pupils should be familiar with the prehistoric archaeological sites in Slovenia and with those of Alpine Slavs in the territory of present-day Slovenia. Secondary school curricula, on the other hand, place greater emphasis on cultural heritage and promote visits to museums or archaeological parks from prehistoric and Roman times in the territory of present-day Slovenia, as well as archaeological finds that link ancient Greek civilization with the territory of present-day Slovenia. There are no significant differences between elementary and secondary schools. History teachers most often highlight archaeological sources in the introduction to history, where they discuss the types of historical sources, and when they talk about prehistory and antiquity. On field trips or shorter visits to cities in Slovenia, pupils and students encounter actual archaeological remains. It is therefore suggested that Slovenian history curricula of elementary and secondary schools place more emphasis on the importance of the archaeological heritage and encourage teachers to involve students in the study of archaeological sources.

**KEY WORDS:** MATERIAL SOURCES, ARCHAEOLOGICAL SOURCES, ARCHAEOLOGICAL PARKS, ARCHAEOLOGICAL EXCAVATIONS, HISTORY, CURRICULA, ELEMENTARY SCHOOLS, SECONDARY SCHOOLS, SLOVENIA.

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# ROLE OF MATERIAL SOURCES (WITH EMPHASIS ON ARCHAEOLOGICAL SOURCES) IN HISTORY CURRICULA OF ELEMENTARY AND SECONDARY SCHOOLS IN SLOVENIA

## Introduction

*“Throughout the past, people created and used various objects, built dwellings and other buildings. A few remnants of objects and buildings from various periods have been preserved to this day. These traces of the past tell a story about the lives of people in those times. /.../ The oldest group of historical sources are material sources.”* (Rode, Tawitian & Galonja, 2006, p. 12). That is how textbook authors present material sources to pupils in elementary schools.

According to the Cultural Heritage Protection Act of the Republic of Slovenia, archaeological remains are *“all the objects and traces of human activity from previous periods on the surface, in the earth and water whose conservation and study help to uncover the historical development of humankind and its connection to the natural environment, with the main sources of information on these objects being archaeological research or discoveries and for which it can be assumed that they have been under the ground or water for at least 100 years, thus possessing the attributes of heritage. Archaeological remains are also objects connected with burial grounds, as laid down by regulations on wartime mass graves, and with war, including the archaeological and natural context, which have been under the ground or water for at least 50 years. Professionally identified and registered archaeological remains become heritage.”* (Cultural Heritage Protection Act, Third article).

The paper aims to evaluate the role and importance of material and archaeological sources in Slovenian elementary and secondary schools. The first section analyses how history curricula emphasize material and archaeological sources, whereas the second section attempts to determine to what extent and in what way history teachers in Slovenia are already incorporating archaeological sources into the subject of history in elementary and secondary schools by conducting an interview and online survey.

## Role of Material Sources in the History Curricula of Elementary Schools

There are two curricula for elementary schools: the first curriculum is for the compulsory subject of history in Slovenian elementary schools from grades 6 to 9 (pupils aged from 11 to 15), while the second curriculum is for the elective subject that can be implemented in the 7th and 8th grade (pupils aged from 12 to 14).

**The History curriculum of elementary schools** writes that pupils learn about material sources in the 6th grade under the compulsory topic *Remnants of the Past* and under the unit *How We Learn about the Past*, where written, oral and material historical sources are mentioned, and the importance of museums, libraries, archives and archaeology (Kunaver et al., 2011, p. 7). The didactic recommendations include the instruction for teachers to enable pupils to work with historical sources independently, including material sources (Ibid., p. 41). The curriculum makes no other mention of material sources. One purpose of history lessons in elementary schools is that pupils learn “*the skills of the simple application of historical research methods, /.../ of simple analysis, synthesis and interpretation of useful and authentic data and evidence from historical sources and literature from various media for researching and learning about the life of people in the past, /.../ the skill of using historical sources and information by means of information technology (IT)*” (Ibid., p. 5). As material sources are often connected with local history, the pupils learn to assess the importance of the conservation and protection of cultural heritage based on examples from local history (Ibid., p. 6). In elementary schools, pupils are able to enumerate the types of historical sources, describe their characteristics, explain their importance for history, and explain which institutions house them (Ibid., p. 28). The didactic recommendations state the following: “*Cooperation with other institutions relating to history and cultural heritage (e.g. museums, archives, libraries, galleries, etc.) is also of great importance for modern history lessons, as it develops the pupils’ skills of searching for and gathering new information and develops a respectful and responsible attitude towards the conservation and protection of cultural heritage.*” (Ibid., p. 41). The elective topic on prehistory in Slovenia focuses on the subject of archaeological sites, in which the pupils describe the main archaeological finds from various prehistoric periods in the territory of present-day Slovenia (Ibid., p. 10). Within the context of inventions, which are covered by the elective topic *Humans Think, Create and Build*, the pupils describe the discovery of the wheel in the Ljubljansko barje marshes (Ibid., p. 8).

**In the curriculum for the elective subject Let’s Discover Our Town’s Past** material sources are not included among the subject’s general objectives, however, in this subject the pupils “*train in the use of historical research methods adapted to the pupils’ age /.../ by using various historical sources and literature and by using them as a study aid; they train in the use and comprehension of historical sources, literature and information collected and selected from other media for researching and learning about the life of people in the past; /.../ by using various historical sources and literature as a study aid they develop the ability to critically assess historical events and phenomena in the past and present*” (Balkovec et al., 2008, p. 4). Pupils encounter material sources in individual learning contents: in mediaeval stories they learn about toys and the materials from which they were made, about clothes worn in the Middle Ages and the types of materials used for making clothes in the past and present; about the clothing and combat gear of knights; about the material remains of the

existence of obsolete forms of land transport etc. They also learn which tools and means for walking, carrying and transporting cargo, and which steam-, motor- or electric-driven means of transportation were used in the past (Ibid., pp. 5-10). The curriculum recommends researching the history of the home town, city or region in the form of cooperative learning, project work, fieldwork involving museums and archives, shorter and longer field trips, and research camps (Ibid., p. 32). The didactic recommendations under individual operative goals and contents also envisage visits to museums, e.g.: Železniški muzej/Railway Museum in Ljubljana, Tehniški muzej/Technical Museum in Bistra near Vrhnika, Pomorski muzej Sergeja Mašere/Maritime Museum in Piran, Muzej pošte in telekomunikacij/Museum of Post and Telecommunications in Polhov Gradec, Kobariški muzej/The Kobarid Museum, Muzej novejše zgodovine Slovenije/National Museum of Contemporary History in Ljubljana, etc. (Ibid., pp. 10, 12 & 15). Under the topic of migrations throughout history the curriculum recommends collecting data from archaeological burial grounds where Alpine Slavs and the natives were buried together (Ibid., p. 21).

Based on the analysis of both elementary school curricula it can be said that the curricula do not mention archaeological sources or remains among the main general objectives but instead include them among material sources. Archaeological sources and finds are included in the topics on prehistory and Alpine Slavs in the territory of present-day Slovenia. Both topics are based on archaeological finds, which is why both curricula require that pupils are able to enumerate the main archaeological sites in Slovenia for these two topics.

## **Role of Material Sources in the History Curricula of Secondary Schools**

The role and importance of material sources, with emphasis on archaeological sources, have been analysed in several secondary school history curricula and in the curricula that include historical contents, e.g. for the subjects of economic history, history of sport, social sciences, and social and nature sciences.

**The History curriculum of general secondary education** (general, classical or professional secondary schools) does not specifically mention material sources; the introduction explains that the curriculum focuses on contents covering the history of everyday life, illustrating the material achievements of humankind in individual historical periods (Kunaver et al., 2008a, p. 7; Kunaver et al., 2008b, p. 7; Kunaver et al., 2008c, p. 7). The general objectives relating to the development of abilities and skills include an objective that relates to historical sources, i.e. that students learn “*the ability to collect and select, analyse and synthesise, and critically assess the value and usefulness of information and historical sources*” (Kunaver et al., 2008b, p. 8). Under the compulsory topic *Why Is History Important?* students learn to assess the importance of historical sources for history and also become acquainted with the role of

libraries, archives, museums and ICT in the use of historical literature and sources (Ibid., p. 13). Under the compulsory topic *From City-States to the First Empires* students learn to show “a responsible and positive attitude towards the conserved cultural heritage from the period of prehistory and Antiquity in various archaeological parks, museum collections, etc.” (Ibid., p. 15). Under the compulsory topic *Prehistoric and Ancient Cultural Heritage in the Territory of Present-Day Slovenia* students likewise learn to show “a responsible and positive attitude towards the conserved cultural heritage from the period of prehistory and the Roman era in the territory of present-day Slovenia in various archaeological parks, and museum collections” (Ibid., p. 16) and “to analyse the characteristics of the preserved myths and archaeological finds that connect the civilization of ancient Greece with the present-day territory of Slovenia” (Ibid., p. 47). The curriculum recommends that the elective topics in particular are implemented in the form of field trips, fieldwork and museum work (Ibid., p. 57).

**The curriculum for the elective subject history of sport** in general secondary schools states that this subject highlights the concepts of working with historical sources and the interpretation of the main findings in the evolution of sport (Brodnik et al., 2014, p. 4). That way students learn to collect, analyse, evaluate and synthesize historical sources on the topic of the evolution of sport. The curriculum recommends acquainting the students with various sources also through museums (Muzej športa/Sports Museum) and archives (Ibid., p. 22).

**The curriculum for economic history** in technical secondary schools also contains economic topics related to finance or the prehistoric way of life (gathering, hunting) but does not focus on material or archaeological sources. One general objective states that students “develop their abilities to collect and select, analyse, synthesize, and critically assess the value and usefulness of information and historical sources” (Kunaver et al., 2008d, p. 6).

**In the history curriculum of secondary technical education and vocational-technical education**, under the compulsory topic *Area of Slovenia and Slovenians in the period up to the 18th Century* (introduction), students learn about the basic characteristics of the settlement of the area of Slovenia in prehistory and the heritage of the Illyrian and Celtic era (until the arrival of the Romans). This topic mentions the objective that the student “finds the most important sites from prehistoric times on the map (e.g. Divje babe – flute, Vače – situla) and the names of rivers originating from that period” (Knowledge Catalogue: History, 2007, p. 3). Under the elective topic on history, space and time, the student learns to evaluate a written, material, visual and Internet source, namely by critically evaluating a source by comparing a written and material source, making use of literature and the Internet (Ibid., p. 19). They learn to identify different historical sources with the help of sources and literature, the Internet and fieldwork (museums, archaeological excavations) (Ibid., p. 18). Under the topic on money, students learn about the means of payment in Antiquity by

visiting local museums (Ibid., p. 19). Under the topic on architecture and dwellings in the past, students evaluate the use of materials and the usability of other materials connected with construction (Ibid., p. 33). Under the topic on clothes, students learn about the different types of materials used for making clothes in prehistory and Antiquity (Ibid., p. 40). It has been established that the curriculum encourages students to visit museums in order to better understand the learning content (e.g. shops, crafts, money and various historical sources) (Ibid., pp. 18-22). The didactic recommendations also state that students should visit museums and old town centres, and see the historical sights: *“During history lessons in the field students are educated with a sense of aesthetics and for a positive attitude towards the conservation of Slovenian cultural heritage.”* (Ibid., p. 44).

**The curriculum for social sciences** in secondary vocational education states that students will learn about life, work and mentality in the past, and the impact of key events on historical development and the present, whereas material sources are not specifically mentioned (Knowledge Catalogue: Social Sciences, 2007, p. 2).

**The curriculum for social and natural sciences** in lower vocational education places great emphasis on Slovenian history. Thus, under the thematic unit *From Story to History* students learn about the main cultural and historical monuments of their town and the importance of their conservation (Knowledge Catalogue: Social and Natural Sciences, 2007, p. 5). Under the thematic unit *The Present-Day Area of Slovenia in the Past and the History of Slovenians up to the 19th Century* students learn about *“the importance of finds from prehistory and Antiquity for getting to know life in the past in the present-day area of Slovenia; they come to understand the importance of protecting historical and cultural heritage in the present-day area of Slovenia”* (Ibid., p. 5). Students are able to show on the map some of the most important prehistoric sites, describe an example of an archaeological find (e.g.: the Vače situla) and deduce the importance of the finds. They also learn where finds from the past are kept and why they should be preserved, and learn to describe some of the most important historical and cultural monuments from the Roman era in Slovenia (Ibid.).

Based on the analysis of secondary school history curricula and of the subjects containing historical contents it can be established that all secondary school curricula emphasize historical sources. The history curricula for general secondary education also place great emphasis on cultural heritage and archaeological parks from the period of prehistory and the Roman period in the territory of present-day Slovenia, and on archaeological finds that connect ancient Greek civilization with the present-day Slovenian territory. Moreover, all curricula (except for the subjects history of sport, economic history, social sciences) stress the importance of material sources, of the knowledge of these sources, and of a better understanding of the learning content by visiting museums, local historical attractions and archaeological excavations.

## **Importance of Archaeological Finds (in the Territory of Present-Day Slovenia) in History Lessons in Elementary and Secondary Schools**

### ***Presentation of Shorter Survey***

In Slovenia there are over 3000 registered archaeological heritage units; by 2016, 44 archaeological parks have been set up (Breznik, 2016, p. 6).

To determine how much emphasis history teachers place on archaeological finds and which archaeological parks in Slovenia they visit, a shorter online survey questionnaire was drafted. It aimed to determine:

- Whether the teachers have already taken their students to a museum with an archaeological collection and which museums they have visited;
- Whether the teachers have already taken their students to an archaeological park and which archaeological parks they have visited;
- Whether the teachers have already taken their students to an archaeological excavation and where.

The request to fill out the online survey questionnaire was sent to all history teachers collaborating with the Faculty of Arts, University of Ljubljana, in the practical training of students in 2019. There were 150 teachers in total. 63 history teachers responded, i.e. 24 secondary school teachers and 39 elementary school teachers. In light of the small number of history teachers the results cannot be generalized to all history teachers in Slovenia.

During history lessons teachers can discuss or show archaeological finds and archaeological parks using visual material, 3D-printing, video recordings and written material (scientific and professional literature, literary works, etc.).

To determine to what extent and in what way teachers emphasize archaeological sources or remains during history lessons, history students at the Faculty of Arts asked that question to history teachers (their future mentors on their teaching practice at schools) during an interview which they conducted as a requirement for the subject History Didactics in the 2019/20 academic year. The survey thus included the answers of 15 history teachers, i.e. 8 secondary school and 7 elementary school teachers.

## Results and Interpretation

Below are the answers of history teachers with a comparison of answers for elementary and secondary schools, and the findings.

The survey answers show that the surveyed teachers at elementary schools most often take their pupils to visit Narodni muzej Slovenije/National Museum of Slovenia in the capital of Ljubljana, Mestni muzej/City Museum of Ljubljana, Dolenjski muzej/Museum of Dolenjska in Novo mesto and other larger museums throughout Slovenia (Ptuj, Celje, Maribor). In secondary schools the teachers and students visit fewer museums than in elementary schools (Table 1), however, they choose museums in larger Slovenian towns, most often the City Museum of Ljubljana, the National Museum of Slovenia in the capital of Ljubljana, and the Museum of Dolenjska in Novo mesto.

| Answers | Frequency/<br>Percent | Elementary schools | Secondary schools |
|---------|-----------------------|--------------------|-------------------|
| YES     | f<br>%                | 32<br>82%          | 16<br>67%         |
| NO      | f<br>%                | 7<br>18%           | 8<br>33%          |
| Total   | f<br>%                | 39<br>100%         | 24<br>100%        |

**Table 1.** Number of history teachers that take their students to visit museums with an archaeological collection.

The teachers' survey answers have shown that there are no statistical differences between elementary and secondary schools (Table 2). Elementary school teachers and pupils mostly visit archaeological parks that are closest to their schools, two archaeological parks in particular – the Roman Emona in Ljubljana and the Roman necropolises in Šempeter near Celje. Secondary school students most often visit Šempeter near Celje.

| Answers | Frequency/<br>Percent | Elementary schools | Secondary schools |
|---------|-----------------------|--------------------|-------------------|
| YES     | f<br>%                | 18<br>46%          | 11<br>46%         |
| NO      | f<br>%                | 21<br>54%          | 13<br>54%         |
| Total   | f<br>%                | 39<br>100%         | 24<br>100%        |

**Table 2.** Number of history teachers that take their students to visit archaeological parks.



There are many archaeological excavations in Slovenia, but the survey answers of history teachers showed that very few teachers take their students to archaeological excavations (Table 3). The teachers' survey answers have also shown that there are no differences between elementary and secondary schools. The teachers have stated that they have been to archaeological excavations in Ajdovščina, Kranj and Novo mesto in recent years.

| Answers | Frequency/<br>Percent | Elementary schools | Secondary schools |
|---------|-----------------------|--------------------|-------------------|
| YES     | f<br>%                | 7<br>18%           | 4<br>17%          |
| NO      | f<br>%                | 32<br>82%          | 20<br>83%         |
| Total   | f<br>%                | 39<br>100%         | 24<br>100%        |

**Table 3.** Number of history teachers that take their students to see archaeological excavations.

Judging from the answers of 15 history teachers (taken from the interviews), they most often discuss archaeological sources and finds in lower grades, i.e. in elementary schools in grades 6 and 7 (pupils aged from 11 to 13), where pupils learn about the main remnants of the past, the types of sources and about prehistory; in secondary schools in the first year (students aged from 15 to 16), where they discuss prehistory and Antiquity, to which most of the archaeological remains belong. In elementary schools a greater number of teachers pointed out that they incorporate archaeological sources and finds into the discussion of local history.

| Elementary schools  | Secondary schools                       |
|---|---|
| Visual material   | Visual material                         |
| –   | Teachers bring replicas of artefacts    |
| Use of Google Earth   | –                                       |
| Archaeology in practice   | Students make replicas of artefacts     |
| Visits to and tours of cities, e.g. Ljubljana, Maribor, Celje, Ptuj | Fieldwork (in the form of a field trip) |

**Table 4.** Methods of incorporating archaeological sources and finds into history lessons.

In the interviews the teachers mentioned that students come to know archaeological finds and remains also on shorter field trips across Slovenia or e.g. during tours of cities. Since archaeological parks are not located near schools, history teachers show diverse visual material to the students, bring replicas of artefacts, or the students take a closer look at archaeological finds using online tools e.g. Google Earth (Table 4).

An example of a teacher's answer which clearly shows that history teachers also present the profession of archaeologist in secondary schools: *"During lessons we take a look at photographs of sites, and students of the secondary school of art make a replica of an archaeological source (e.g. the bone flute from the Divje Babe site, a model of a pile-dwelling, etc.). I also explain to students how to determine the age of artefacts; the problems that archaeologists encounter, and many other things; this is how my students encounter archaeological sources in secondary school. Some of my students later decide to study archaeology."*

An answer from another teacher contains a suggestion for introducing active archaeology in elementary schools: *"We could try out archaeology in practice with the pupils attending the elective history class. The pupils would learn how the excavation of archaeological sources is carried out, what they have to look out for, and how they can assemble the fragments of an archaeological source into an artefact."*

## Conclusion

It can be concluded that, on the one hand, the history curricula for elementary and secondary schools in Slovenia highlight the importance of historical sources. Material sources are highlighted in two curricula (the history curriculum of elementary schools and the history curriculum of secondary technical education and vocational-technical education), while the importance of archaeological finds is mentioned in all curricula (except for the subjects history of sport, economic history, social sciences) for the periods of prehistory and Antiquity in the territory of present-day Slovenia. The history curricula do not contain any special didactic recommendations for the use and study of material or archaeological sources. They do, however, recommend visits to museum, libraries, archives and archaeological parks, which proves that archaeological finds hold an important place in the history curricula of elementary and secondary schools in Slovenia.

On the other hand, the survey answers of history teachers show that the surveyed history teachers more often take their students to museums with archaeological collections than to archaeological parks. There are no significant differences between elementary and secondary schools. The teachers most often take their pupils and students to visit museums with archaeological collections and archaeological parks

in the capital of Ljubljana; also important are the archaeological park in Šempeter near Celje and the Museum of Dolenjska in Novo mesto. The answers of history teachers in the interviews also confirm that they most often incorporate archaeological sources into the introduction to history, where they discuss the types of historical sources, and into the discussion of prehistory and Antiquity. They also confirm that the teachers and their pupils and students encounter archaeological remains on field trips or shorter tours of cities in Slovenia. During history lessons the teachers most often show visual material, bring replicas of artefacts, or view archaeological sites using online tools.

The findings pertain to a small number of history teachers in Slovenia, but it can nevertheless be presumed that history teachers place sufficient emphasis on archaeological sources and remains within the context of prehistory and Antiquity, focusing on archaeological remains in the territory of present-day Slovenia.

Interestingly, the questions posed to the teachers have encouraged them to think about potential ways of incorporating archaeological sources into history lessons so the pupils and students would be active researchers and would test their archaeological skills in practice.

In conclusion, we suggest that the history curricula of elementary and secondary schools in Slovenia could place greater emphasis on the importance of archaeological heritage, not only in the territory of present-day Slovenia but throughout the world. *“Learning about the past and forming a proper attitude towards it helps each of us to form an attitude towards our daily lives.”* (Berzelak, 2002, p. 19).

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## **PART 4**

# **TEACHING AND LEARNING ARCHAEOLOGY IN HISTORY CLASSROOM AND MUSEUMS**

**ACTIVE LEARNING APPROACHES TO ARCHAEOLOGICAL SOURCES**  
(Špela Bezjak)

**MULTIPERSPECTIVE ARCHAEOLOGICAL LEARNING  
AT ARCHAEOLOGICAL SITES IN PRIMARY EDUCATION**  
(Christian Mathis)

**USING ARCHAEOLOGY TO BRING ENGLISH HISTORY TO LIFE  
FOR PRIMARY SCHOOL PUPILS**  
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**AVARS AND SLAVS: EDUCATIONAL PROGRAMME  
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**INTERNATIONAL COOPERATION  
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(Zorica Babić, Špela Bezjak)

**EDUCATIONAL PROGRAMMES WITH ARCHAEOLOGICAL CONTENTS  
IN SLOVENIAN MUSEUMS**  
(Špela Bezjak)



## ACTIVE LEARNING APPROACHES TO ARCHAEOLOGICAL SOURCES

### Abstract

The main purpose of using active learning approaches to archaeological sources is to encourage the active role of learners, enhance their motivation, develop their abilities and skills, enable a better understanding of history topics, and promote a positive evaluation of cultural heritage. The paper highlights the role, importance and types of active learning approaches to archaeological sources. It highlights experiential learning, multi-perspective learning, multisensory learning, enquiry-based learning and critical thinking. Active learning approaches to archaeological sources are categorized into two types, namely those that can be used during history lessons in a classroom (in school) and those relating to museums. Learning approaches differ from one another on account of several factors, all of which are based on the active role of the learner. Active learning approaches intended for use in schools are mostly founded on cross-curricular integration, and on promoting the learners' research work and critical thinking. The active learning approaches highlighted as examples in archaeological museums focus on experiential learning, creative expression and multisensory learning. This paper aims to illustrate the diverse possibilities of using archaeological sources in schools and museums.

**KEY WORDS:** ARCHAEOLOGICAL SOURCES, LEARNING APPROACHES, ACTIVITY, EXPERIENTIAL LEARNING, MULTISENSORY LEARNING, MULTI-PERSPECTIVE LEARNING, HISTORY, ARCHAEOLOGY, SCHOOL, MUSEUM.

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## ACTIVE LEARNING APPROACHES TO ARCHAEOLOGICAL SOURCES

### Introduction

In history lessons, historical sources are an important segment of the teacher's visualization and illustration of the subject matter being discussed in elementary and secondary schools. By increasing the active role of learners, integrating visual and written material into textbooks more often, and more frequently introducing tasks relating to historical sources, their role and importance in the subject of history are constantly increasing in elementary and secondary schools in Slovenia. At the end of the previous century and at the beginning of the 21st century Slovenian didacts of history wrote about the importance of working with material sources, which include archaeological sources (Weber, 1981; Trškan, 2007; Potočnik, 2013).

In Slovenia, archaeology or the teaching of archaeological contents is not being implemented as a standalone subject; instead, it is discussed under the subject of history in elementary and secondary schools. Pupils first learn about archaeological sources in the subject of history in the 6th grade of elementary school, as the history curriculum for elementary schools requires that pupils (aged from 11 to 12) learn the importance of historical sources and archaeology as a science; they also come across archaeological sources later, in the 7th grade (pupils aged from 12 to 13), where they learn about archaeological sources under the topic of prehistory, Ancient Egypt and the civilizations of the Fertile Crescent, Ancient Greece, Ancient Rome and the Middle Ages (Kunaver et al., 2011). It is similar in general secondary schools where the curriculum prescribes a more in-depth discussion of prehistory, ancient civilizations, Ancient Greece and Rome, and the Middle Ages (Kunaver et al., 2008).

For this reason, the paper will continue with a description of the role attributed to active learning approaches in the history curricula in elementary and general secondary schools in Slovenia. Afterwards, it will describe the importance, role and key characteristics of active learning approaches, highlighting the most common learning approaches to archaeological sources. In the end, it will present and evaluate the most recent concrete examples of the use of archaeological sources in school (in a classroom) and in select Slovenian and Croatian archaeological museums.



## Active Learning Approaches to Archaeological Sources in History Curricula in Slovenia

Active learning approaches to archaeological sources are not specifically mentioned in the history curricula. Archaeological sources are classified under the broader set of historical sources; it is therefore presumed that the learning approaches to historical sources mentioned in the curricula also apply to archaeological sources.

The guidelines of elementary and general secondary school history curricula promote active learning approaches during history lessons in the classroom or within the scope of cultural and educational institutions. According to these guidelines, the curricula promote project work, authentic and enquiry-based learning, history fieldwork, learning by discovery, cooperative learning, role playing and simulations, cross-curricular integration, team teaching, etc. (Kunaver et al., 2008; Kunaver et al., 2011). The curricula encourage and guide teachers and learners towards using active learning approaches, especially towards independent work with historical sources (written, visual, oral, film, etc.) (Ibid.).

It should be pointed out that Slovenian history curricula for elementary and general secondary schools also promote cooperation with cultural and educational institutions relating to history and cultural heritage. E.g. the elementary school curriculum states that by doing so “*pupils develop the ability to search for and gather new information, and develop a respectful and responsible attitude towards the preservation and protection of cultural heritage*” (Kunaver et al., 2011, p. 41).

## Importance, Role and Characteristics of Active Learning Approaches to Archaeological Sources

The paper continues with a definition of the general characteristics of active learning approaches, which also apply to active learning approaches to archaeological sources. Modern pedagogical guidelines are placing a growing importance on various active learning approaches. They promote learner-focused teaching models that provide an experiential, research, creative, cooperative, visually rich and inclusive mode of learning and teaching (Vičič Krabonja, 2016, p. 171). Active learning approaches are based on active learning, during which learners actively create meaning and connect the new to the already known, thus improving retention (Maretič Požarnik, 2018, p. 74) and gaining longer lasting, more useful and beneficial knowledge (Trškan, 2016, p. 27). They encourage learners to search and think independently, engage in meaningful dialogue within a group, and propose and test hypotheses. Šteh (2004, cited in Marentič Požarnik, 2018, p. 12) defines it as “*learning that activates a person mentally and emotionally, is of personal importance and is integrated into real life circumstances*”. It is designed less formally than traditional learning, thus enabling

greater conceptual efficiency and application to theoretical contents as well (Krajnc, 2020, p. 387). Marentič Požarnik (2018, p. 12) states that, in light of this, instruction with active learning “*is no longer mere transmission, but a living transaction – a multitude of meaningful interactions between the teacher and the learners, and between the learners themselves – and finally a transformation – a modification of notions of the world and a modification of personality*”.

Active learning approaches primarily increase learners’ motivation. The learners’ motivation undoubtedly depends on the teacher and on the learner (how much he/she participates in class and how active he/she is), on the learning methods applied, and on the content itself (Trškan, 2016, pp. 27-28). Passive learning approaches used during lessons can often be the cause of the learners’ lack of motivation. History teachers often complain about the passiveness of learners during lessons, as all they do in class is observe and listen to the teacher’s explanation (Abdul Latif et al., 2017, p. 374). In that case it would be sensible to include an active learning approach, as “*it would motivate learners to carry out active, efficient and successful self-educational work*” (Trškan, 2016, p. 27) and would elevate their work from passive to active.

Active learning approaches influence several components of learning. In addition to longer lasting knowledge and motivation, they also influence the development and acquisition of learning skills. The latter are most effective in learners when the following forms of teaching are used: one-on-one teaching, group teaching, and the non-traditional frontal teaching using various active methods (Trškan, 2016, p. 27).

Active learning approaches to archaeological sources also ensure the development and acquisition of learning skills. They can provide pupils with specific knowledge and skills of archaeological practice, and help them to make links between the past and present, and to see the value and complexity of heritage (Henson, 2017, p. 45). Archaeology offers both intellectual challenge and emotional connection, so it can be a mental exercise as well as a set of technical craft skills. Because of its wide subject domain and practice, it can appeal to a very wide variety of learners (Ibid.). Henson (2017, p. 47) states that learning archaeology enables: “*the analysis of remains which involves high-order cognitive skills; to engage with the heritage of past peoples, i.e. to make a strong affective connection across the ages from person to person; moreover, the practices of archaeology are highly physical and technical, resulting in well-developed psycho-motor skills*”. Other benefits that archaeological education can provide for pupils are: “*confidence in the subject matter; improved educational attainment; a greater awareness of heritage; enhanced scientific knowledge; increased personal development and improved social development*” (Armstrong, 1996, pp. 22-23, cited in Cole, 2014, p. 96).

Working with archaeological sources helps pupils to develop problem-solving skills, observation skills, enquiry skills, empathy, promotes scientific thinking, personal

development and self-confidence, and may help children and young people to put history into real-world contexts by providing the “bigger” picture through looking at the large timespans archaeology deals with (Ibid., p. 97). Active approaches to archaeological sources also improve the visualization and reconstruction of the past, the development of critical thinking skills, comprehension, and the possibility of active learning also for learners with special needs, whose specific learning difficulties call for adapted modes of learning. In addition to all the above-mentioned skills, working with archaeological sources also enables learners to more easily discern the key information, details, facts and evidence pertaining to the history topic. The use of archaeological sources during lessons or in archaeological museums also prepares learners for a positive evaluation of and respect for cultural heritage.

## General Learning Approaches to Archaeological Education

### ***Experiential Learning***

Experiential learning is one of the most relevant approaches to archaeological education. According to Kolb’s model of experiential learning, active approaches to archaeological sources have much to offer. Kolb’s ideas are a thinking-through of the learning that takes place through experience. The framework of Kolb’s learning styles is characterized by problem-solving opportunities, opportunities for experimentation, reflection and experience (Cole, 2014, p. 146). Kolb (1984, cited in Henson, 2017, p. 46) explains the cycle of experiential learning, which starts with “*concrete experiences, which provide a basis for observation and reflection, which lead to the creation of abstract concepts and the testing of those concepts through a process of testing in new experiences*”. This cycle of learning involves a creative tension between two poles of preferred learning methods: “*thinking (developing abstract concepts) or feeling (concrete experiences), and doing (experimenting) or watching (reflective observation)*. Each learner has their own combination of these methods” (Ibid., pp. 46-47). Experiential learning is a very important approach also in museum educational programmes and a useful model for object-based learning. For example, we can learn from the archaeological artefacts, which may occur in a museum’s context, on site, or in the classroom (Cole, 2014, p. 141).

### ***Multisensory Learning***

Active learning approaches to archaeological sources are often designed to enable learners to activate multiple senses while learning, namely through touch, smell, hearing and taste. The use of different learning styles would provide opportunities for pupils to engage through different senses, making use of visual stimulus, sounds

and language, tactile exhibits and movement. The VAK model of learning has categorized the most basic learning styles into three types: *“auditory learning (learning by listening), visual learning (learning by seeing), and kinaesthetic learning (learning through action)”* (Bartlett & Burton 2009, cited in Cole, 2014, p. 146). According to different learning styles, it is possible *“to take a range of approaches to working with and investigating archaeological material and thus there is scope for learners with different suites of approaches, preferences, styles and strategies to get involved in this approach”* (Ellick, 2008, p. 264, cited in Cole, 2014, p. 146). This active approach, especially in the context of museum learning with archaeological sources, allows learners to use a broader skill set than is traditionally associated with classroom teaching.

### **Multi-Perspective Learning**

One of the most common active learning approaches to archaeological sources is multi-perspective learning. Multi-perspective learning is a learning approach through which a specific learning unit is taught as an intersection of various curricular disciplines that are combined into a meaningful concept. This approach is characterized by viewing learning and teaching comprehensively, encompassing the learner’s body, thoughts, feelings, previous experience, intuition (Širec et al., 2011, p. 41). Different definitions of cross-curricular integration in lessons include *“integration of subjects or fields; emphasis on project work; sources that go beyond textbooks; links between concepts; thematic content units as an organizational principle; an adapted timetable and adapted grouping of learners”* (Lake, 1994, pp. 2-3, cited in Širec et al., 2011, p. 41). Schools or museums commonly link knowledge from mathematics, chemistry, technology, etc. An example of this approach is using archaeology as a starting point for studying a history topic such as the Romans. Then taking the idea further by *“linking the topic to geography (map making and aerial photographs), mathematics (analysing and recording data from field walking), literacy (writing a site report), design technology (an examination of pottery manufacture) and art (an exploration of past styles)”* (Pearson, 2001, p. 24, cited in Cole, 2014, p. 86).

### **Learning with ICT**

Learning with information and communications technology has become an increasingly powerful tool in archaeology education (Gardiner, 2019, p. 1). Digital tools can help to create multimedia and interactive products such as archaeological sources. There are many possibilities of using active learning approaches to archaeological sources by creating artefacts with 3D modelling, using virtual tours (Gardner, 2019), using different web applications like Kahoot!, Quizizz, etc. The main purpose of using digital applications relating to archaeological sources is creating an interesting interactive digital learning environment and through it raising pupils’ motivation for learning.

## ***Enquiry-Based Learning***

Enquiry-based learning is often applied when working with archaeological sources. It is defined as learning which mentally stimulates the learner towards searching for solutions and achieving an in-depth understanding. During enquiry-based learning, learners look for solutions to a given task or problem by measuring, asking questions, analysing, classifying, etc. This approach is often used also in museums during activities in which learners obtain information and solutions on their own, while the museum educator merely guides and directs them.

## ***Critical Thinking***

The critical thinking of learners is another active learning approach to archaeological sources. When practising critical thinking, learners assess and connect various information and concepts, thus getting to know the basic research approach used in archaeological research. When implementing educational activities in school or in a museum, it is important that the learning approaches are designed in a way that enables learners to critically evaluate and connect different concepts or historical facts. The purpose of critical thinking when working with archaeological sources is, above all, to understand the interaction between time, the environment and people in the oldest historical periods, and to comprehensively understand archaeology as a discipline.

## **Active Learning Approaches to Archaeological Sources in the Classroom and Museum**

### ***General Guidelines***

The types of active learning approaches to archaeological sources used during history lessons (in a classroom) and during activities in a museum differ on account of diverse factors, however, all of them are based on the active role of the learner. There are two aspects of archaeology that can be used by teachers or archaeological educators: our knowledge of the past, and archaeological enquiry skills (Henson, 2017, p. 53). Because of that, it is important to be aware of the following guidelines for active learning approaches to archaeological sources in schools or in museums.

Firstly, it is very important to provide teachers with the materials and professional development they need to be successful in the classroom – no more, no less. It is important to know what we want the pupils to understand and remember twenty years from now. According to that, there is no point in teaching pupils archaeological

learning content which is not meaningful. The amount of material is also important. If the teacher thinks there is too much material about archaeology, they may decide that they simply do not have the time to do any of it (Moe, 2019, p. 227). Lack of confidence is not the only barrier teachers face in using archaeological education sources. Lack of time is also an issue for teachers (Cole, 2014, p. 102). It is also important to know the audience and what their needs are (Moe, 2019, p. 227).

The second recommendation is being aware of the importance of what pupils already know and the misconceptions they may harbour in any educational endeavour, including archaeology. It is essential to identify misconceptions, which can usually be used as “teachable moments” or opportunities to explore concepts and content more deeply. For example, a teacher or archaeology educator can explain the difference between archaeology and palaeontology using all the knowledge that the pupils already have and with it help them to understand that palaeontology is limited to animals and plants, while archaeology studies humans (Ibid.).

The third recommendation is to use metaphors in interpreting archaeology very carefully. Teachers and archaeology educators must guide pupils to get them to understand the possibility of multiple evidence-based interpretations of the archaeological record. While it is tempting to get pupils thinking in terms of story and narrative, the teachers must show them that it is not that simple and that we can never know the “real” or “complete” story of the past. It is probably one of the reasons that children and adults find archaeology fascinating; they get to interpret the evidence for themselves (Ibid., p. 228).

Another advantage of archaeology is that it provides an excellent lens for enquiry-based learning in social studies, history, and science. Archaeology educators can provide teachers and pupils with the means to uncover mordant concepts in science and history, and compelling knowledge about their lives and the cultures of people who lived in the past. Archaeology educators or teachers can guide the “uncovering” of knowledge and conceptual understanding by marrying process and content through the study of authentic archaeological data. Knowledge that learners build themselves and integrate into their own existing cognitive structures will be retained far longer than “covering” information from a textbook (Ibid.).

The last recommendation is to enable pupils to produce robust interpretations based on real evidence. Even a trained archaeologist cannot always provide a “perfect” interpretation. According to that, it is important that pupils produce the best possible interpretations based on the evidence they have at hand. It is also important that they are able to evaluate potential flaws in their own arguments, holes in the data that may skew an interpretation, and to recognize that more than one inference may be drawn from the same observation based on prior knowledge or bias (Ibid.).

## ***Examples of Active Learning Approaches to Archaeological Sources in School (Classroom)***

When implementing active approaches in a classroom, the history teacher has many options available. Bearing in mind that active learning approaches to archaeological sources during history lessons in a classroom are not yet established in Slovenian schools (learners most often learn about archaeological sources through visual material), a few examples of active approaches by foreign authors have been chosen; they clearly demonstrate the purpose and diverse possibilities of active inclusion of archaeological contents in history lessons in a classroom.

Homsey-Messer, Michaud, Lockard and Babo (2019) have thoroughly presented contemporary active learning approaches in the book titled *Experiencing Archaeology: A Laboratory Manual of Classroom Activities, Demonstrations and Minilabs for Introductory Archaeology*. Hence, this paper will point out five practical examples of the use of archaeological sources, which can be applied in a classroom (in school).

With the first activity example, the pupils will have the opportunity to learn about the meaning of artefacts and have a chance to understand the main process and formation of the archaeological record. We present the example of knowing one of the most basic and important concepts in archaeology called context. Context refers to the relationship artefacts have with one another, as well as the situation in which they are found. Without this information, we are forced to interpret the artefacts' functions and/or purpose through our own subjective perspective. Context consist of three parts: matrix, association, and provenience – or MAP for short. The context of artefacts is very much related to mapping. The purpose of the activity is that pupils learn the meaning of context. They will observe and describe an “artefact” and, based on that, they will know and understand how to define the archaeological context of real artefacts. After observation, pupils have to draw the artefact from two sides (front and back, front and side). They must then describe the artefact using physical attributes such as size, height, shape, colour and construction material. They have to determine the purpose of the artefact based on observations, and then present the archaeological context to the teacher (Homsey-Messer et al., 2019, pp. 57-62).

The second example is an activity with classification. An important procedure in archaeological work is the process of classification. Classification involves the sorting and grouping of copious quantities of artefacts into a smaller number of classes, or types, which have the ability to inform archaeologists about past lives. To understand archaeological classification, pupils are given different buttons that they must classify into different typologies (age, gender, function, socioeconomic status) based on physical attributes such as size, colour, shape, surface decoration, and material. They then analyse similar typologies and verify the proper arrangement of buttons (Ibid., pp. 67-72).

The third example is an activity which will help pupils to understand archaeological work through understanding the site formation process. Two classes or types of the site formation process are recognized: culturally created processes (purposeful and accidental discarding of objects (i.e. waste), burning and demolition of structures, and even archaeological excavation itself) and naturally created processes (catastrophic natural events such as earthquakes, floods, landslides, etc.). This concept forces us to think about how sites are formed to begin with, how they are transformed over time, and how they are ultimately destroyed – all of which helps us to better understand human behaviour and adaptation to their local environment. For understanding this concept, pupils will explore the various positive and negative processes that form and shape archaeological sites. They will complete a site matrix consisting of four cells: cultural processes/behaviours that add material to sites; cultural processes/behaviours that subtract (i.e. remove) material from sites; natural processes that add material to sites; natural processes that subtract material from sites. The purpose of the “site matrix” is to create a mental rubric to help pupils to remember the vast number of processes that create and destroy sites, and which help archaeologists to better understand human behaviour and the natural environment processes that contribute to people settling or abandoning a site. The teacher can ask pupils to do this activity individually or as part of a class activity (Ibid., pp. 77-79).

Once an archaeological site has been excavated, it is gone forever. As a result, archaeologists must carefully record exactly where all the artefacts, ecofacts, and features are located relative to one another in order to record their archaeological context. The next activity (fourth example) presents the process of gridding and mapping an archaeological site. To understand the process of gridding and mapping an archaeological site, pupils can do two things. First, they will learn how to construct a square unit using a process called triangulation. Triangulation entails using the known length of a unit's site to calculate the hypotenuse. Then they will watch the video “Archaeological Methods: Setting up a 1m Grid Square” and find out which geometric formula they will use to determine the hypotenuse. Second, they will learn how to map artefacts and features in two dimensions using the (x, y) coordinate system. In the coordinate system, the pupils will outline the “corpse” by drawing and measuring. Their map must include the key elements of mapping, namely scale, units and datum (Ibid., p. 88). Other interesting activities for pupils are those where they first have to watch a video and according to it illustrate the application of archaeological mapping. For example, the pupils will watch the video “FBI Hunts for Clandestine Burials”, where they can see how important archaeological techniques, especially accurate mapping, are to forensic investigation and criminal investigation (Ibid., p. 84).

Another important field of archaeology for pupils learning archaeology in class are different frameworks for measuring time in archaeology. We present one example of a class activity (fifth example), which will help pupils to better understand the meaning and purpose of different ways of measuring time in archaeology. There are



several possibilities for measuring time, for example dendrochronology, radiometric dating, dating bones, stratigraphy and others. The presented activity is based on stratigraphy, which defines different strata and their relationship with one another. Stratigraphic principles allow archaeologists to date each layer as being older or younger than another layer. These relationships can also help them to interpret how a site has formed over time, through both cultural and natural processes (Ibid., p. 93). An interesting activity which enables pupils to understand the concept of stratigraphy, is a group creating their own stratigraphy out of a heap of random clothing. Pupils will come to class with an extra item of clothing, which they will put on the floor. The purpose of the activity is creating and analysing stratigraphy to apply the principles of superposition, cross-cutting, reverse stratigraphy, and unconformities. After that, they will have a class discussion and solve an exercise where they must arrange the clothing in relative order from oldest to youngest according to the extra stratigraphic profile, using stratigraphy to interpret the cultural and natural process forming the site (Ibid., pp. 95-99).

### ***Examples of Active Learning Approaches to Archaeological Sources in Selected Slovenian and Croatian Museums***

Active learning approaches to archaeological sources are most often seen in the activities and programmes of archaeological and other museums. Their contents are often target-oriented and follow the guidelines and objectives of the curricula for various subjects in elementary and secondary schools.

Two pedagogical orientations, above others, stressed the importance of museums for the education of learners, i.e. the pragmatist and the positivist one. The positivist pedagogical orientation, which stresses the importance of museums for education, is *“distinctly oriented towards facts and the concrete, and attributes great importance to the direct observation of things and to the intuitive method, which is to enable teaching through experiments and the use of all the senses, not just words”* (Ciocca, 1979, p. 42, cited in Tavčar, 2009, p. 59). The pragmatist orientation, on the other hand, points out that a museum is a place which culturally enriches learners and where they are able to develop their interests. In preschool children, this orientation points out *“their interest in researching and discovering things, in constructing things, and in artistic expression”* (Dewey, 1977, pp. 40-42, cited in Tavčar, 2009, p. 60). Such orientations help us to define active learning approaches, which enable learners to more easily construct and understand the past, compare and build on the subject matter they have already learned in class, and to develop critical thinking skills. They elevate learners from a passive state (listening and observing objects) to the level of active learning.

Below is a presentation of examples of workshops employing active learning approaches to archaeological sources offered by the National Museum of Slovenia, the Archaeological Museum in Zagreb, and the Archaeological Park Andautonija in Croatia.

Many Slovenian and Croatian museums are attempting to popularize archaeology through their museum activities by organizing workshops that present the work of archaeologists or other museum staff who are directly connected with the discipline of archaeology. One example of an active learning approach to archaeological sources is an experiential workshop where learners get to know the work of an archaeologist by digging up ceramic vessels in a sandbox. The learners are tasked with digging up hidden pieces of ceramic vessels in a sandbox; afterwards, they clean, glue and assemble them. In the process, the learners fill in their archaeological diary, in which they write down their measurements, individual pieces of the excavated artefacts, and the key data that archaeologists must be familiar with during a dig. The process of an archaeological dig is systematically led by the museum educator (Kušan Špalj, n. d.).

One topical example of experiential learning in museums is learning about a specific historical period through clothes, which the learners can try on. This approach could also be applied to role playing or simulations in the classroom, where learners could put themselves in specific situations or in the shoes of historical figures. In that case, clothes would make the experience even more authentic. A few examples are e.g. learners trying on prehistoric clothes (Karo et al., 2019, pp. 30-31), the Hallstatt attire of the upper class (National Museum of Slovenia, 2020b) and Roman clothing (Kušan Špalj, n. d.). Another example of experiential learning is acquainting learners with the hieroglyphic script, where they learn about hieroglyphs and use them to write their names (Archaeological Museum in Zagreb, 2020b); or measuring a pile-dweller's boat, which also focuses on cross-curricular integration (National Museum of Slovenia, 2020b).

The majority of active approaches to archaeological sources are based on multisensory learning. Touch is of great importance when getting to know and memorize archaeological sources. Touching artefacts is a commonly employed approach in the majority of educational programmes in Slovenian museums. Examples of this approach are touching and comparing metals (National Museum of Slovenia, 2020d); using a knightly sword; touching the products of skilful prehistoric and ancient craftsmen (National Museum of Slovenia, 2020a); touching stone tools and other Stone Age materials (National Museum of Slovenia, 2020b). Karo et al. (2019, pp. 8-11) specify an example of multisensory learning, i.e. a museum activity in which learners come to know ingredients and dishes from the Iron Age, make these dishes, and taste them. The sense of smell is emphasized mostly when learning about Roman spices and fragrances (National Museum of Slovenia, 2020a; Kušan Špalj, n. d.).

A large segment of activities relating to archaeological sources in museums is founded on the learners' creative expression, with the museum educators making use of various techniques and approaches (colouring, sketching/drawing, processing, etc.). Examples of this are learners' activities connected with construction and crafts in the period of prehistory and Antiquity. For instance, building a simplified model of an Iron Age tumulus using small wooden sticks (Karo et al., 2019, pp. 20-21) or similar building of a prehistoric hut in a group, where learners get to know the key materials, the procedure, and technique of building (Archaeological Museum in Zagreb, 2020a). Other examples of learning about specific crafts and their techniques are: processing small copper tiles into which learners hammer various patterns using a hammer and nails, following the example of Avars and Slavs (Archaeological Museum in Zagreb, 2020c); sewing patterns onto fabric or treating hides and decorating them (possibly using previously processed small copper tiles or sewing patterns onto the leather), which the learners can then use as sleeves for notebooks or pads (Ibid.). The learners' creative expression is also evident when making jewellery. Specific examples are: making jewellery from a copper wire (Archaeological Museum in Zagreb, 2020c; Karo et al., 2019, pp. 24-25); making jewellery from modelling clay (Archaeological Museum in Zagreb, 2020a); making bracelets by weaving on a small wooden replica of a prehistoric loom (Karo et al., 2019, pp. 30-31; Kušan Špalj, n. d.).

Educational programmes in archaeological museums offer many other active learning approaches that provide learners with an authentic museum experience. One example is learning new concepts pertaining to prehistory by means of a mental portfolio. Each learner is given a portfolio; they sort individual prehistoric artefacts into a table and categorically arrange them based on the concept, the image of the artefact and its description (Archaeological Museum in Zagreb, 2020a). This enables a learner to get to know the most representative archaeological artefacts which are kept in the museum, and to understand the period of prehistory within its context. They can also use the illustrative table as a learning aid for learning history.

Active learning approaches are also evident in the use of information and communications technology (ICT) in a museum. One example is using a mobile phone for conducting independent research and learning in a museum. Learners can use a mobile application to conduct independent research and learn about the daily lives of Romans by taking a look at the monuments in the lapidarium (National Museum of Slovenia, 2020c).

## Conclusion

Archaeology is a highly multidisciplinary science, which we can bring closer to learners in school or in museums by using suitable active learning approaches to archaeological sources. The learning approaches often present the archaeologist's work process, the excavation process, and most often focus on working with archaeological sources.

The paper has highlighted active learning approaches to archaeological sources, which mostly influence the learner's motivation to learn, the development of specific abilities and skills, better retention, and longer lasting knowledge. Moreover, they also improve visualization and reconstruction of the past, and their positive evaluation of cultural heritage.

By using diverse active learning approaches to archaeological sources, learners can attain higher levels of knowledge. When working with archaeological sources in schools and museums, educators often make use of experiential learning, multisensory learning, enquiry-based learning, learning through creative expression, critical thinking, and, above all, learning through cross-curricular integration of various areas of learning, particularly mathematics, geography, chemistry, biology, technology, etc. The use of an individual active learning approach depends on which area of archaeology we wish to research.

The aim of the paper was to point out the diverse possibilities of using archaeological sources in schools and museums through active learning approaches to archaeological sources. It has been determined that active learning approaches in schools and museums differ, however, that all are based on the active role of the learner. In schools, active learning approaches are more structured and appear in the form of individual or group tasks that are suitable for being solved during lessons or when doing homework. On the other hand, archaeological museums place greater emphasis on experiential learning, creative expression and multisensory learning. In light of technological progress and its impact on learners' motivation, it is recommended that learning through ICT be incorporated more into history lessons and into the educational programmes of Slovenian museums. In the field of learning and teaching archaeological contents, we should strive towards introducing new, contemporary active learning approaches, which will continue to have an impact on the learners' positive attitude towards archaeology and history, and especially towards cultural heritage, in the future.

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## MULTIPERSPECTIVE ARCHAEOLOGICAL LEARNING AT ARCHAEOLOGICAL SITES IN PRIMARY EDUCATION

### Abstract

Archaeological sites such as the medieval ruins above the village make traces of history in one's surrounding area accessible and tangible. Their authenticity fascinates and motivates children to look and ask questions. Furthermore, learning at archaeological sites leads pupils out into the landscape, where traces (e.g. parts of buildings, ruins, landscape transformations) have been preserved. These archaeological sites become pivotal points for the students' active engagement with the local space (e.g. perceive, describe, question etc.). Moreover, learning at archaeological sites incorporates the principle of multi-perspectivity, which demands a discursive discussion of content and different perspectives on reality. Thus, children learn to think academically, to discuss perspectives, explore and examine the world. Here, the pupils' archaeological learning processes are guided by learning task. They activate their knowledge and help to change, expand and enrich it. The paper presents a process model of archaeological learning at archaeological sites within the framework of the competence orientated teaching in Swiss primary schools.

**KEY WORDS:** ARCHAEOLOGICAL LEARNING, INTERDISCIPLINARY TEACHING, GUIDED-DISCOVERY LEARNING, PRIMARY EDUCATION, HISTORICAL THINKING, HISTORICAL CONSCIOUSNESS, HISTORICAL COMPETENCIES, SWITZERLAND.

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# MULTIPERSPECTIVE ARCHAEOLOGICAL LEARNING AT ARCHAEOLOGICAL SITES IN PRIMARY EDUCATION

## Introduction<sup>9</sup>

Archaeological sites such as the medieval castle ruins or the Iron Age fortifications make history tangible and alive in the immediate vicinity. Their authenticity makes them fascinating and motivates to look and ask questions.

Archaeological phenomena are popular topics for teaching at primary level. The “Stone Age” and “Romans” have virtually become classics. In addition, new teaching material is constantly being produced for them (Hein, 2011; Sénécheau & Schuster, 2020). However, the teaching materials often present archaeology incorrectly or stereotypically, both in terms of content and methodology. In addition, outdated and outdated archaeological knowledge is sometimes reproduced and presented (Sénécheau, 2008).

In German-speaking Switzerland, at primary level social studies and science are integrated in a subject called “Nature, Humans, Society (NHS)”. Archaeology is a reference discipline of the integrative school subject and some archaeological phenomena have a “compulsory” status in the NHS curriculum, for example “objects” or “ruins” (D-EDK, 2016b, pp. 32-34). Thus, archaeology would have received its place in Swiss primary schools. However, it may be assumed that in the classroom this is taught as the “story of ancient things”. The essence of archaeology – its questions and objects, its interdisciplinary character as well as its methods or its historical-cultural dimension – is not addressed, Samida (2010) stresses.

In the following, the understanding of archaeology as an interdisciplinary historical cultural discipline will be explained. Subsequently, the subject of archaeology will be explained in the school subject “NHS”. Then, a pedagogy of archaeological learning – extra muros – will be elaborated and a “process model of archaeological learning” will be presented. Finally, the importance and function of the learning tasks in archaeological learning is emphasised.

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9 This paper is based on the study book on archaeological learning by Mathis, Favre and Keller, 2017; vgl. <https://librum-publishers.com/sachlernen-im-nahraum/> [Accessed: 30<sup>th</sup> March 2020].



## Archaeology as Interdisciplinary Historical Cultural Discipline

Archaeology originally means “the knowledge of the ancient world” or “of old things” – the ancient Greek “archaios” means “old”, “logos” means “teaching” – and was only in the 18th and 19th centuries “restricted to the material heritage of past cultures” (Eggert, 2006, p. 4). Nowadays, archaeology deals with past human activities in space and time, which it interprets and reconstructs. Its interest in knowledge focuses on the diversity of cultural and social practices of the former humans. In their research projects, archaeologists rely primarily on material remnants. If written (or even pictorial) sources from the period under investigation are available, they are also included in the research process (Eggert, 2006, 2011; Renfrew & Bahn, 2012; Eggert & Samida, 2013).

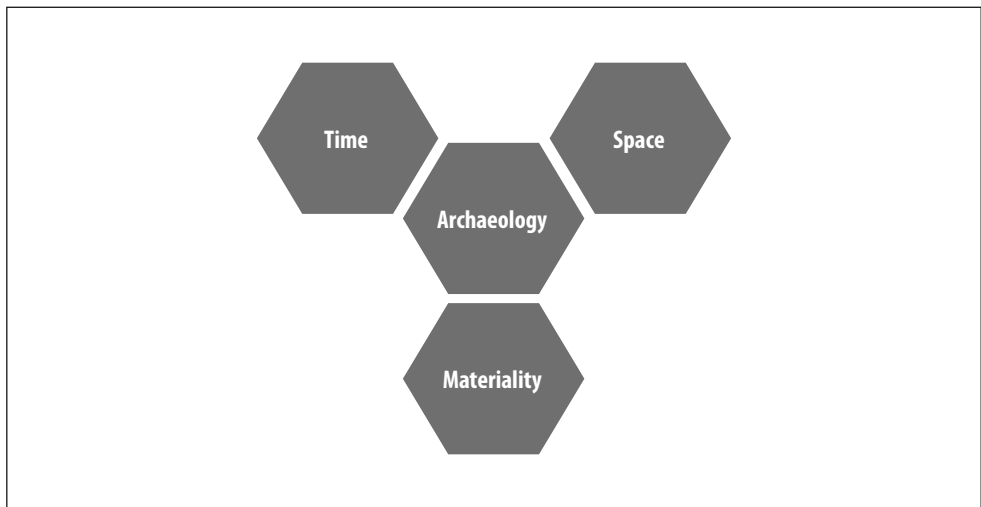
Eggert (2006, p. 3) understands archaeology as a historical cultural discipline, “*which is primarily dedicated to the study of the non-written traces of past cultures and thus makes its own contribution to knowledge of the historical universe*”. The term “archaeology” encompasses various subjects whose self-understanding “*is essentially derived from their own definition of content, time and space*” (Samida, 2010). For Eggert, it refers to “*the ‘sum of the digits’ from the ‘individual archaeologies’*” (Eggert, 2006, p. 3). Unifying elements are their common understanding of archaeology as an interdisciplinary, historical discipline, the mainly material character of their sources and the consequent specific archaeological methodology. These include, for example, “*the exploration of sources through systematic excavation, methods of relative and absolute-chronological dating and the classification of archaeological phenomena, but also the interpretation of the sources*” (Samida, 2010, p. 216). According to Lang archaeology “*works with the material remnants of the past that have survived deposited in layers or on the surface*” (Lang, 2009, p. 30).

The primary interest of “archaeology” lies in the interpretation and reconstruction of social and cultural practices of the past. This does not mean, however, that archaeologists excavate the past, because the archaeological material at the moment of its excavation is “part of our present” and at most a trace of the past (Eggert, 2006, p. 31). These traces allow a cultural-historical interpretation of human activities in space and time of the past (Rüsen, 2013, pp. 34-48). Thus, two central categories of archaeology have been identified: space and time.

There is also a third category: materiality. This is particularly evident in the material remnants. Specific questions about age, origin and especially the nature of these sources can be answered almost exclusively by scientific methods and procedures (e.g. isotope or DNA analyses) (Baeriswyl, 2013, pp. 102-103; Nagy, 2016, pp. 31-33). This means that archaeology has to work in an interdisciplinary way and explicitly integrates, physically, chemically, geologically or biologically oriented natural sciences: “*The integrative approach allows, for example, detailed insights into*

*the everyday life, nutrition, economic practice, culture and environment of the inhabitants of Neolithic pile dwellings, Roman villas or medieval towns*” (IPNA, 2020). Thus, for example, the distribution of wild and cultivated plant remnants in a Neolithic cultural layer can provide information on the food spectrum of the former rural community as well as on agricultural practices, the ecological conditions of the surrounding area and possibly on settlement structures.

Only the interdisciplinary interplay of cultural-historical, spatial-scientific and natural-scientific methods and epistemological approaches will result in a comprehensive analysis of as many find categories as possible and thus in the creation of the broadest possible empirical basis for interpretations with regard to a superordinate archaeological-cultural-historical question (cf. Figure 1). In this regard, archaeology differs from history which is mainly focused on written sources.



**Figure 1.** Basic dimensions: materiality, time and space (Designed on the basis of: Mathis, Favre & Keller, 2017, pp. 20-37)

However, time, space and materiality are not only basic categories, but “at the same time a mode of argumentation” (Lang, 2009, p. 30). With regard to the dimension space, this applies first of all “to the stratification, the spatial distribution of artefacts on the surface, as well as the location of objects and also serves as a tool for the spatial visualization of artefacts” (Lang, 2009, p. 30). However, the wider space, e.g. the spatial elements, must also be taken into consideration. Secondly, the same applies to the dimension of time (e.g. in terms of continuity and change). Here, modes of argumentation such as telling and explaining as well as establishing chronology or differentiating layers of time are meant (Rüsen, 2013; Koselleck, 2015). Thirdly, such modes can also be named for the dimension materiality. Here it is a matter of

investigating substances and their properties as well as collecting and classifying, analyzing and structuring characteristics, etc. (Wagner, 2008).

With regard to the interdisciplinarity of archaeology, Lang emphasises: *“The multi-causal and complex interplay of political, socio-economic, natural, cultural and mental factors, which determine the constantly new spatial constructions and constitutions in the course of time, can only be holistically grasped in an interdisciplinary interweaving of methods (archaeology, history, geo, bio, engineering and literary sciences as well as philosophy, sociology etc.)”* (Lang, 2009, p. 42).

## **Archaeology in the School Subject “Nature, Humans, Society (NHS)”**

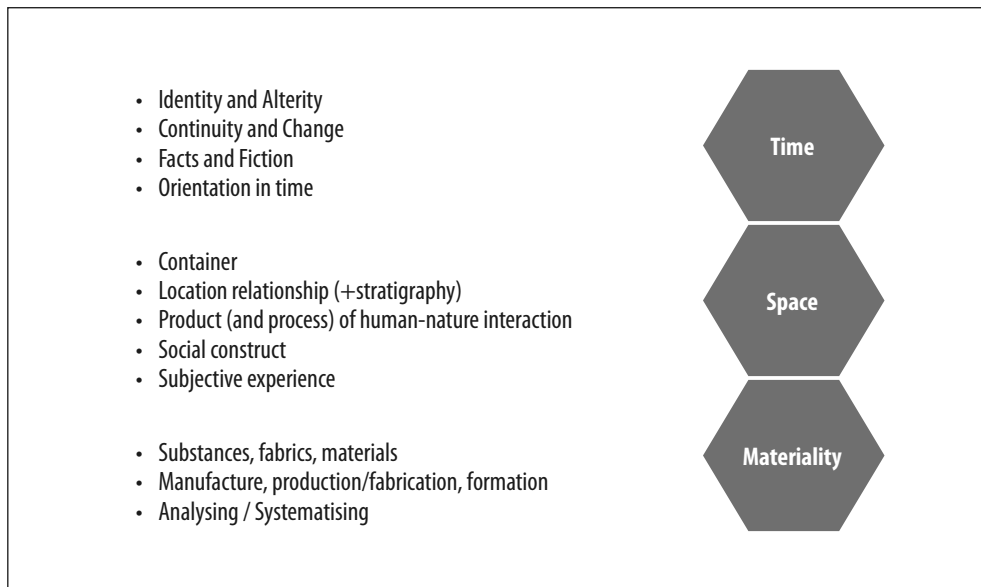
Archaeology today is therefore an interdisciplinary historical cultural discipline. For the integrative, multi-perspective didactics of the NHS (GDSU, 2013; Kalcsics & Wilhelm, 2017, 2019). NHS teaching also covers a range of academic disciplines. In addition to (school) subjects such as geography, biology or history, other academic disciplines such as archaeology are also included as reference disciplines.

For the didactics of NHS, the principle of multi-perspectivity is both a challenge and a task (Köhnlein, Marquart-Mau & Duncker, 2013). Duncker emphasizes that it is important for processes of *Bildung* to look at a learning object from different sides, because each side brings out different facets and because looking at only one side cannot do justice to the object. Only by distinguishing between different perspectives helps to develop an understanding that the initially naively taken perspective is only one of many possibilities and that it is dependent on the point of view that one has perhaps unconsciously taken. However, it is possible to change points of view, and thus the change between perspectives in particular becomes a decisive characteristic that increases the quality of cognitive processes (Köhnlein, Marquart-Mau & Duncker, 2013). If teaching on archaeological topics relies too much on one perspective – e.g. the historical perspective – it promotes an incomplete understanding among children. *“In this way, the heuristic potential of different professional perspectives is not used”* and thus *“not clearly evident to the children”* (Köhnlein, Marquart-Mau & Duncker, 2013). The multi-perspective view of the world or of the archaeological phenomenon must be systematically trained.

For teaching in general and teaching of NHS in particular, a field of tension can be identified between the experiences of the children on the one hand and the content and methodological offerings of the specialist disciplines on the other. Or, as Köhnlein puts it: *“Attention is paid equally to scientifically proven knowledge and the corresponding methodological approaches, as well as to the things and processes that can be experienced in the real world and can be experienced in a variety of ways, to which people in our culture ascribe significance”* (Köhnlein, Marquart-Mau & Duncker,

2013). An equal and mutual consideration is constitutive for the teaching of NHS (GDSU, 2013, p. 10). This “mutual consideration” is to be understood dialectically as an interplay between one’s own previous experience and the new, the academic. In the classroom, there should be no teaching of concepts from the academic world that are devoid of experience, nor the banal reproduction of the children’s everyday knowledge. Instruction on archaeological phenomena, for example, must not be limited to merely confirming the children’s assumptions and previous knowledge, but must also provide subsequent disciplinary concepts (Mathis & Duncker, 2018).

For the NHS teaching, which focuses on archaeology, the historical (NMG.9), geographical-spatial (NMG.8) and scientific-technical (NMG.3 and NMG.5) perspectives are therefore particularly important (D-EDK, 2016b). The exploration of a castle ruin, for example, raises temporal, spatial and material questions: Who do you think built this castle? Who ordered it? How old are these walls? Was there already a building or a settlement on this site before? Why did the people of that time take the trouble to build the castle on this site? Wouldn’t there have been an alternative site in the area? In which distance and in which direction is the castle located to the next town, the next monastery, the next castle? Where did the stones for the walls come from? Where did the wood come from? How was this wall built? How many people probably worked on it? Where did they come from? Who, if anyone, paid for them and with what? Etc.



**Figure 2.** Dimensions of archaeological thinking (Designed on the basis of: Mathis, Favre & Keller, 2017, pp. 20-37).

This example illustrates that when it comes to the teaching of archaeology, multi-perspective questions should be the standard. This also means that knowledge from different disciplines must be drawn upon and different perspectives adopted (Adamina, Hemmer & Schubert, 2016; Becher, Gläser & Pleitner, 2016; Giest, 2017) (see Figure 2). The teacher must thereby act as a “moderator” of the perspectives and point out new views to the children and help to irritate and expand familiar ones with new perspectives.

## **Learning at Archaeological Sites**

Especially for primary school children, an occupation with archaeological sites is promising, as they have a great interest in events and periods of the past. The otherness compared to the present, the adventurous and the mysterious fascinate pupils (Kübler, 2018). However, it is often assumed that visiting an archaeological site enables a direct encounter with the past. This is a misunderstanding, however, as the past itself cannot be experienced directly. It is only an encounter with artefacts from the past. History only emerges when these remnants are contextualized and integrated into a (meaningful) narrative. This increasingly requires a reflected historical consciousness and imagination (Rüsen, 2013).

In particular, historical subjects benefit from the direct and practical experience and learning opportunities offered by monuments, historical buildings and archaeological sites (Beilner, 2004, p. 169). How geographical conditions, economic, social and political prerequisites, as well as art and science, have interacted in the past can hardly be better demonstrated than in concrete and definable local places. Technical-architectural and scientific perspectives can also be demonstrated, for example, at ruins, and enable activity-based teaching and learning (Beilner, 2007, p. 172).

The active exploration of a complex environment in situ increases the chance of linking school and everyday knowledge. In addition, learning in situ supports the development of exploration skills such as observing, questioning, investigating, documenting, classifying, comparing (Brade & Dühlmeier, 2015).

Two types of archaeological sites can be distinguished: Sites where content has been pedagogically and methodologically prepared for active exploration and learning and is permanently available (e.g. archaeological museum), and sites that are temporarily visited for learning purposes (e.g. castle ruins) (Reusser, 1999; Aebli, 2019).

Archaeological sites also have an “aura of authenticity” (Benjamin, 2006). This – often supposed – authenticity intensifies learning and subjectively enriches it. Moreover, at archaeological sites children are addressed in their emotionality and corporeality through numerous sensory experiences. For example, a visit to a prehistorically

inhabited cave enables pupils to understand what it might have meant for Palaeolithic humans to enter the shelter located on a steep slope above the valley floor, to live in the cool, damp environment for a longer period of time and to extract all the resources necessary for survival from the surrounding nature (Mathis, Favre & Keller, 2018).

The authenticity of each original encounter motivates the students. Diverse references within, from and between phenomena such as landscapes, production sites or artefacts can be discovered; archaeological sites represent a complex section of the pupils' environment that can be explored from different disciplinary perspectives.

In order to tap the full potential of learning on site, it is important to embed these sites in the teaching process in a way that promotes learning. It is important to combine excursions with preparatory and follow-up lessons in the classroom (Karpa, Lübbecke & Adam, 2015, p. 13). The visit to the archaeological site can be done as an introduction, in the courses of the lessons or as a conclusion. From the point of view of learning psychology, the most efficient variant is when the children have already acquired some knowledge (Brade & Dühlmeier, 2015, p. 439).

## **Didactics of Archaeological Learning**

Searching for, discovering and deciphering archaeological traces uses a whole range of didactic principles and methods that have been formulated by NHS didactics as state of the art (D-EDK, 2016b; Kalcsics & Wilhelm, 2019). This includes, for example, activity-based and guided-discovery learning and original encounters.

### ***Activity Based Learning***

The teaching of “Nature, Humans, Society” focuses on the reflective action of learners. Activity-based learning is not only about handling hands and body, but especially about thinking. True to the guiding principle “*Thinking is the sorting of actions*” by the Swiss psychologist Aebli (1994, 2019).

The activities themselves are to be understood as integral aspects of competence orientation (D-EDK, 2016b). Thinking aims at the development, practice and application of thinking procedures and their internalization or automation. This includes, for example, observing and perceiving, which is important for archaeology. As an exact, differentiated and criteria-guided perception of features, characteristics and changes, it is more than just looking and watching. It includes the description of the perceived.

For example, a task may require children to draw an excavation find (e.g. a stone axe) from their imagination and write down their questions. They are then given a replica – e.g. from an educational archaeology box – with the task of comparing the actual object with the drawn one. Through guided observation, they can then answer some of their questions independently.

The German-speaking curriculum of Switzerland is competence-oriented. This means that such actions are regarded as skill aspects of a competence. These are consistently developed, practiced, consolidated and applied to other phenomena in a way that is consistently linked to knowledge aspects (Weinert, 2001; Klieme & Hartig, 2008; D-EDK, 2016b).

Comparison also plays a central role in historical-archaeological learning (Günther-Arndt, 2014, pp. 173-175). For example, by looking at and comparing two different points in time (e.g. contemporary etching of the ruin from the 16th century and own view in the present) differences and similarities or change and continuity can be determined. This is indispensable for the subsequent construction of historical meaning by the children (Rüsen, 2013). The competency in the curriculum for this is: “NMG.9.2: *Pupils can explore continuity and change [...] in their own environment*” (D-EDK, 2016b).

### ***Guided-Discovery Learning***

One teaching method that is committed to activity-based learning is guided-discovery learning. It is used as an umbrella term for a variety of forms of teaching and learning which are characterised by the acquisition of knowledge as independently as possible. However, it is characterized by explorative and enquiry learning. Explorative learning emphasises self-activity and the personal significance of the learning process or learning object for the learners. It starts intuitively from children’s questions (Hartinger & Lohrmann, 2011). Enquiry-based learning, on the other hand, focuses on methodically controlled and goal-oriented activities. For Huber, it is distinguished “*from other forms of learning by the fact that the learners (co-)design, experience and reflect on the process of enquiry*” (Huber, 2009). Whether the question comes from the learners themselves or from the teacher is of secondary importance. Guided-discovery teaching combines the two categories into a learning effective whole. Correspondingly designed teaching sequences are characterised by instructive elements and self-guided activities for the learners. However, there is no dichotomy between instruction and self-discovery, but rather the range and the progressive gradations and mixed forms in between. This includes phases of reflection (Mathis, Favre & Keller, 2017, p. 64).

## ***A Process Model of Archaeological Learning***

The “process model of archaeological learning” serves as a basis for planning and developing competence-oriented learning arrangements on archaeological topics (see Figure 3).

It follows the four aspects of competence development on which the teaching of NHS is based – *perception, exploration, orientation* and *informed action in the world* (D-EDK, 2016b). These four successive phases of activities are assigned specific ways of thinking, exploring and acting. Thus, archaeological learning is understood as a process along these four phases, each with different learning activities.

The learning process runs from *perception* to *exploration*, on to *orientation* and finally to *competent action*. These four phases can be organized according to the children’s preconditions on a range of different degrees of opening for guided-discovery learning. This ranges from a systematically guided, comprehensible, to a selectively guided, to a self-directed and free enquiry and discovery (Mathis, Favre & Keller, 2017).

Learning tasks control the learning processes of the pupils, activate their knowledge and help to change, expand and enrich it, and enable them to make this visible and reflect on it. In the sense of a “cognitive apprenticeship”, the teachers have to decide how closely or how far the degree of independence should be shaped and which scaffolds the students need in order to successfully solve the learning tasks (Brown, Collins & Duguid, 1989).

However, along this four-phase structure, it should primarily be possible to go through complete, systematically structured teaching processes (Helmke, 2017; Aebli, 2019). The main benefit of the process model is that it enables teachers to design competence-oriented teaching units (Luthiger et al., 2018).

The process model is based on Reusser’s KAFKA model of teaching and learning (Reusser, 1999; Aebli, 2019). Reusser defines five learning phases, that describe the process of teaching with the aim of enabling a complete learning process; each phase has a specific function: making contact (K for Kontakt), develop knowledge (A for Aufbau), making knowledge flexible (F), consolidating the knowledge and practice it (K for Konsolidieren), applying and transferring knowledge to concrete situations (A for Anwenden).

First, it is about the exploratory *perception* of archaeological traces by experiencing them sensually and corporeally, looking at them closely and describing them. So-called contact or confrontation tasks control the children’s gaze, arouse curiosity, possibly irritate, raise questions and stimulate initial thoughts or assumptions.



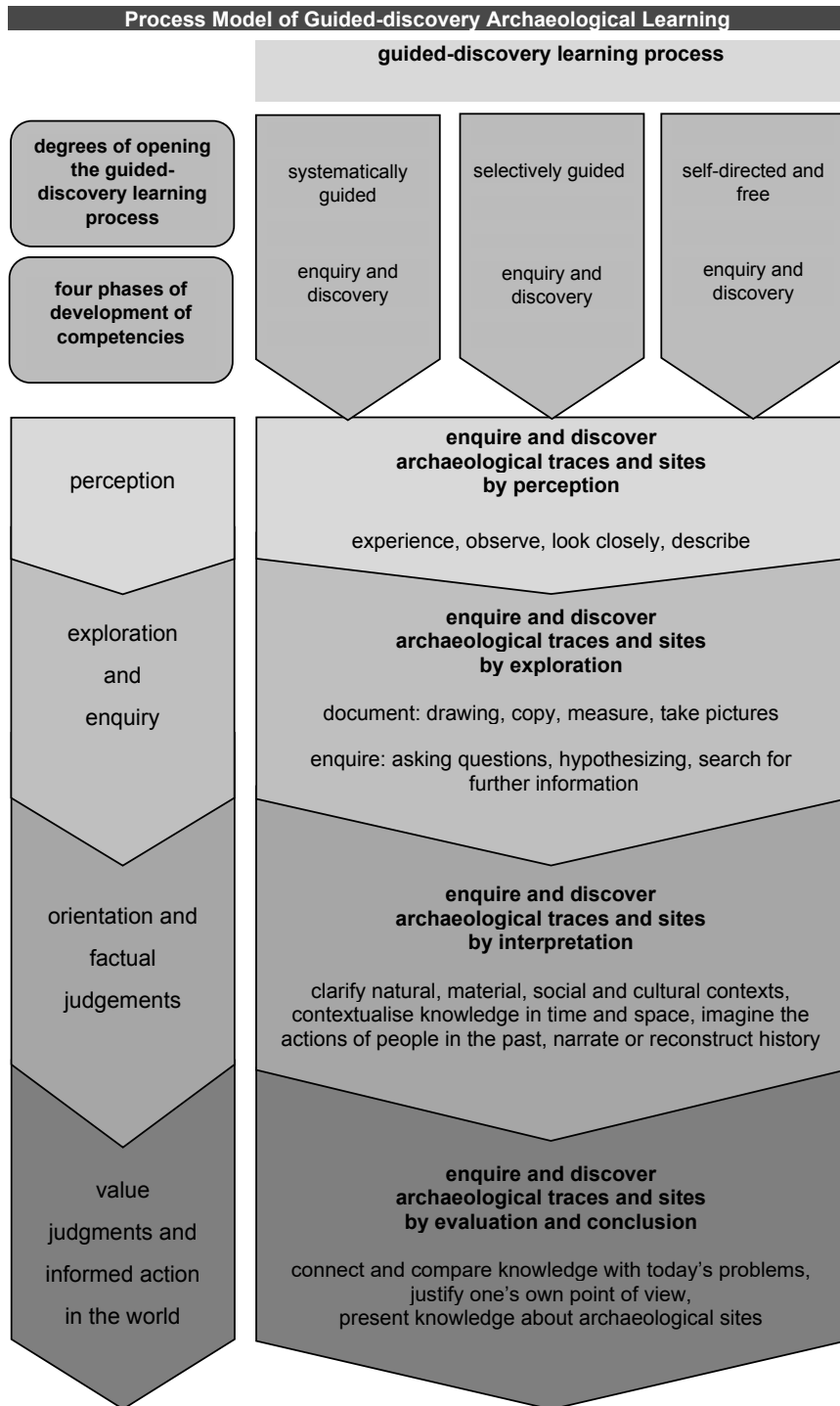
Secondly, there is a process of active *exploration*. This, for example, involves drawing, measuring and photographing, as well as asking questions, making hypotheses and formulating initial findings. The development of competence aspects is supported by specific learning tasks. The pupils' initial findings are combined with academic knowledge elements. In addition to the first findings and explanations, first hypotheses are also documented.

Thirdly, the *interpretation* of the archaeological traces is conducted, in which the initial findings are constructed, enriched and differentiated with further information and knowledge. The elements of knowledge are classified into natural, social and cultural – historical – contexts by means of elaborative learning tasks. The acquired knowledge is then associated with abstract and technical academic terms. Specific learning tasks help to consolidate this knowledge. In order to deepen knowledge, with so-called synthesis tasks traces and accounts are compared and different aspects are linked. The facts are clarified, and factual judgments are made. In this phase of *orientation*, the children imagine how the people of the past had lived and interacted with each other using materials in space.

Fourthly, the pupils construct and tell a narrative about the past on the basis of the facts they have acquired, answer the questions they have formulated in the developmental phase and make a rational value judgement based on the historical factual judgement. In other words, they formulate their own point of view. These insights, answers and learning outcomes gained are, for example, presented in a blog post, a paper, etc. The result is an informed, competent and reflected *action in the world*.

If archaeology is understood as an interdisciplinary, historical cultural discipline that deals with human activities in the past, the archaeological learning processes – despite the demand for multi-perspectivity – focus in particular on the construction of historical meaning (Rüsen, 2013) and the development and promotion of a reflected and self-reflective historical consciousness (Körber, Schreiber & Schöner, 2007).

For Jeismann, historical consciousness comprises competencies on three different levels; on the level of historical analysis, factual judgement and value judgement: *“The reconstruction of the past in historical consciousness takes place through the analysis of past processes or circumstances, through classifying interpretations in historical contexts and finally through the establishment of a evaluative relationship to the present”* (Jeismann, 1988, p. 15). These three successive levels are also found in the process model of archaeological learning.



**Figure 3.** Process model for guided-discovery archaeology learning (Mathis, Favre & Keller, 2017, p. 18).

## ***Learning Tasks***

Students' competence-oriented learning at archaeological sites stands and falls with the learning tasks. These control the learning processes of the pupils. They activate knowledge and help to change, expand and enrich it. Furthermore, they make it possible to recognise and reflect on (Grygier & Hartinger, 2009; Kiper et al., 2010; Luthiger et al., 2018). In accordance with the learning theory of "conceptual change" (Körber, 2015; Mathis, 2015), learning tasks should contribute to developing, restructuring and enriching the various forms of knowledge – subject knowledge, procedural knowledge and metacognitive knowledge (Reusser, 1999). Of course, learning tasks can also be asked in the form of questions. Finally, learning tasks aim to promote networking, contextual and cumulative learning (D-EDK, 2016a).

Productive learning tasks should, firstly, start with a question with a current, life-world reference or with an encounter with an interesting topic, secondly enable active and guided-discovery learning, and thirdly leave room for participation and individual control over learning content and learning paths. Furthermore, they should ask the children to document their findings in different forms, to narrate and explain their own words and to develop their own ideas; and they should encourage them to make judgements, statements, or take actions. Finally, they shall enable the children to think and reflect about the world and about their learning by encouraging personal development and participation in the discovery of new knowledge (D-EDK, 2016b).

According to (Wenzel, 2015), three types of learning tasks can be distinguished for archaeological learning, because "good" competence-oriented tasks emphasis on a subject's core concepts and focus on fostering thinking, skills and attitudes (D-EDK, 2016a, p. 9).

Firstly, *reproduction tasks* require the reproduction of subject knowledge (who? what? when? where?): "What are the elements of a castle called?" At first glance, they contribute little to the actual learning process, but they can be used in its evaluation. Primarily, however, reproductive tasks should help to activate and visualize the knowledge acquired up to that point, so that it can subsequently be used for so-called epistemic tasks.

Secondly, *epistemic tasks* aim at an independent knowledge production by the learners (Why? On what cause? What for?): "Which sources and accounts do we have to consult in order to be able to answer the task according to the what for and why?" "Why did the archaeologists probably use different types of stone during the restoration and reconstruction of the castle ruins?" Epistemic tasks emphasis causes and consequences of historical events; they ask to reason about the motives of historical agents: "Why did the knight's family build this castle; and why exactly here?"

Thirdly, reflection tasks aim to activate and apply meta-cognitive knowledge. They aim at historical reflection (Wenzel, 2015, p. 77). If the pupils have understood that in the Middle Ages women could also rule, for example as mistresses of a city like Zurich, a corresponding reflection task could be: “Do you now think differently about the position of women in the Middle Ages? Why?”

## Conclusion

Today, archaeology is an interdisciplinary, historical cultural discipline. In order to investigate the essential basic dimensions – time, space and materiality – cultural-historical and scientific methods are used. For the integrative, multi-perspective didactics of the school subject “Nature, Humans, Society”, this offers an opportunity, since its teaching also refers to different scientific disciplines. Therefore, archaeological learning should always be multi-perspective. Especially at archaeological sites, the dimensions of time, space and materiality unite. Therefore, they are particularly suitable for guided-discovery lessons. These should be organised along four phases of activities in order to enable a complete learning process. Furthermore, the questions raised or presented are answered by means of competence-oriented tasks.

The presented process model of archaeological learning takes an activity-based approach. It requires, first, a carefully planned, sensual and corporeal perception phase, followed by an exploration phase. In this phase, questions are generated, formulated and initial hypotheses are made. In the subsequent phase of orientation, knowledge is consolidated and results in a factual judgment. Finally, in the final phase, a value judgement is made, in which the students combine and compare, for example, findings with present-day problems. Finally, the pupils act in the world by presenting insights on archaeological traces, for example. Archaeological learning as a multi-perspective, historic-cultural study always requires, in conclusion, a reflection on one’s own learning process and growth in knowledge as well as on the unanswered questions on the topic.

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## USING ARCHAEOLOGY TO BRING ENGLISH HISTORY TO LIFE FOR PRIMARY SCHOOL PUPILS

### Abstract

This paper looks at how the teaching of archaeology in the classroom can broaden primary school pupils' knowledge and help develop skills in critical thinking. Pupils are guided through the thought processes required to become an archaeologist, building from simple vocabulary skills to the complex concepts required for the cultural interpretation of art and artefacts. The use of practical hands-on activities is an essential part of the process and what really separates the teaching of archaeology from the teaching of history. The result of this type of teaching is to encourage learning through a range of multi-disciplinary approaches. By experiencing and engaging with the work of an archaeologist pupils' engagement visibly increases, as they are motivated to uncover the next piece of evidence or attempt to interpret some ancient remains. Whilst 'archaeology' as a subject is not explicitly mentioned in many primary school curricula it is clear that its use, as a way of enriching the history curriculum, is invaluable as a means for pupils to fully engage with their past.

**KEY WORDS:** ARCHAEOLOGY, CLASSROOM, LANGUAGE, EVIDENCE, ARTEFACT, INTERPRETATION, CHRONOLOGY, EXCAVATION, ART, BELIEFS, ENGLAND.

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## USING ARCHAEOLOGY TO BRING ENGLISH HISTORY TO LIFE FOR PRIMARY SCHOOL PUPILS

### Setting the Scene

All state funded primary schools in England are required to follow a National Curriculum which sets out requirements of what should be taught in various subjects at different Key Stages. In England all pupils are divided by age into 5 Key Stages. Primary education is covered by Key Stage 1, 5 to 7 year olds and Key Stage 2, 7 to 11 year olds. This paper will focus on activities designed to be used with Key Stage 2 pupils following the National Curriculum requirements for history. These requirements are that pupils should be taught about (amongst other things):

- changes in Britain from the Stone Age to the Iron Age
- the Roman Empire and its impact on Britain
- Britain's settlement by Anglo-Saxons and Scots
- the Viking and Anglo-Saxon struggle for the Kingdom of England
- a local history study
- a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 (Department for Education, 2013).

Nowhere in the official documents will you find the word 'archaeology', but as can be seen in the list of curriculum topics, it would be impossible to teach some of them without using archaeology as they pre-date the written historical record in England. For other topics the use of archaeological evidence can greatly enhance our written history of a particular period and provide more engaging ways for pupils to understand their past. Whilst there is huge potential for the use of archaeology in the classroom it must also be recognised that currently there is no requirement for primary school teachers to have any minimum qualification, or indeed any qualification at all, in history. There is also only a limited amount of time specifically devoted to the teaching of history. It is therefore especially important to ensure that any resources produced to be used in the primary classroom must provide the teacher with all the supporting information that they will need to be able to successfully deliver the activities.

This is where national organisations such as Historic England, the public body that helps people care for, enjoy and celebrate England's spectacular historic environment can help by providing resources and training specifically designed for primary school teachers. The examples of those activities described below have all been tried and tested with primary school pupils and teachers to ensure they provide the best learning experiences possible.

## Learning the Language of Archaeology – Definitions and Vocabulary

In order for pupils to gain the widest range of skills and knowledge from the use of archaeology in the classroom it is important to consider progression and to lay a foundation of knowledge from which to build upon. This should firstly include the introduction of key vocabulary required for understanding archaeology such as evidence, artefact, interpret and excavate.

For pupils to understand archaeology they need to understand that archaeologists use a range of artefacts to provide them with evidence, which they then interpret to understand the past. They also need to understand that not everything that people used in the past survives for archaeologists to find; many things simply rot away and that archaeologists call these things ‘organic’. To an archaeologist organic means anything made from something living. So things made from wood, animal skins, wool or plants are all made from organic material. For pupils to fully grasp these concepts the use of hands-on activities is essential. One of the best ways to do this is by playing ‘The Rubbish Bag game’, this works on the principle that all archaeologists are detectives.

### ***‘The Rubbish Bag Game’***

To play The Rubbish Bag Game you must first select clean, safe pieces of ‘rubbish’ and place them in a black bin bag. A suggested selection might include: cardboard packaging such as a frozen pizza box, a plastic milk bottle with a paper label, a glass (jam) jar with a metal lid and a paper label, a paper/card train/transport ticket, a plastic shower gel bottle, clean pet food packaging, packaging from a toy of an appropriate age for the children being taught, packaging from a toy/product relating to a baby/younger child.

Pupils take it in turns to pick out a piece of ‘rubbish’, then the whole class have to work out what it is and who might have used it/thrown it away. They record their suggestions of what it is and who used it on the board. Deliberately choose bits of ‘rubbish’ so that pupils can build up a picture of the person/family that threw them away. So for the suggested selection above pupils could work out that it belonged to a family with two children, one their age and one baby, and a pet.

Depending on the age of the pupils (KS2), this activity should then be extending to draw out higher order concepts relating to each of the pieces of rubbish, for example: Pizza box: It’s a frozen pizza, so they must have a freezer, what do you need to make a freezer work? They must have electricity. It has to be cooked, so the instructions on the box will then mention ovens, gas and electric temperatures, giving yet more information about the society the pizza box belongs too. This can be taken even

further by reading all the ingredients: flour – they're growing wheat, chicken, bacon, meat etc. they're farming animals to eat. Also if using the glass (jam) jar and metal lid make sure they go into the rubbish bag separately, this way two different pupils will pull them out of the bag at different times, thus enabling them to work out that the two separate items fit together to make one new item – emphasising how important it is for an archaeologists to be able to put pieces of evidence together to improve their understanding. Items such as train tickets or receipts allow pupils to really delve into the evidence and discuss, times, dates, prices, currency and locations/places.

Once the rubbish bag is empty as a class summarise all the evidence and create a 'picture' of the people/family and the society in which they live. What do they know, but also what else would they like to know/don't they know from the evidence? You could even ask them to do reconstruction drawings of what they think the family might look like, right down to whatever pet they had.

### ***Rot or Not***

Now ask pupils to think about which items would survive being buried in the ground for thousands of years – would it 'Rot or Not?' Lay all the items out in front of the class and discuss which types of materials would survive and which would get all soggy and rot away, like the cardboard pizza box and paper tickets, along with the label on the glass (jam) jar telling you what was in it. Any items that they don't think would survive get taken away, so you now have a much smaller pile of 'rubbish'. Pupils then reassess the evidence and start to understand that archaeologists can only work with what they've got – there's a lot that they don't know, but have to make 'educated guesses' about. You could then get pupils to go back and reassess the evidence and re-draw their reconstruction pictures to really highlight how much of an impact this would have on their initial interpretation of the evidence from the rubbish bag. (Historic England Education, 2018a).

### **Importance of Developing Chronological Understanding**

A consistent complaint from the UK's Office for Standards in Education (Ofsted) is that pupils do not have a coherent understanding of chronology, both in terms of the order of historical events and also the span of the different historical periods – pupils thinking Victorians come before Romans and that both periods lasted the same amount of time – because they studied the Victorians before the Romans and did both for a whole term/half-term! In March 2011, Ofsted published a report on school history, *History for All* (OFSTED, 2011), which presented a mixed picture. This report and others were discussed in the House of Lords Library Note – Debate

on 20 October: Teaching of History in Schools (Cruse, 2011, p. 5). In terms of primary schools both reports noted:

*“History teaching was good or better in most primary schools, and most pupils reached the end of Key Stage 2 with detailed knowledge derived from well-taught studies of individual topics.*

*... However, some pupils found it difficult to place the historical episodes they had studied within any coherent, long-term narrative. They knew about particular events, characters and periods but did not have an overview. Their chronological understanding was often underdeveloped and so they found it difficult to link developments together. In part, this was because many primary teachers did not themselves have adequate subject knowledge beyond the specific elements of history that they taught.” (Ibid.)*

The use of archaeology in the classroom is an excellent way to embed and reinforce pupil’s chronological understanding. The key principals are to work from the known to the unknown and allow pupils to build up their knowledge gradually over time. One approach is to introduce the concepts of a timeline starting with the idea of ‘Youngest, Oldest, Younger/Older’.

For pupils to truly grasp the broad narrative required by Ofsted it is essential to ensure pupils learn basic concepts of dates and sequences first. A good way to introduce these concepts is with generic drawings of family members – a grandparent, a parent, a child and a baby, then asking pupils to sort the drawings into a sequence of the youngest member of the family to the oldest member of the family. Pupils should be familiar with what year they are currently living in and know what the year before was. So hand four cards with dates on (2019, 2012, 1990, 1965) and ask the pupils to put a date card next to each family member to show the year they were born, giving them a numerical sequence – congratulate them on creating their first timeline! With their 4 ‘people’ ask them to look at the dates each person was born and work out if the number of years between each person is the same – once they’ve concluded ‘no’, ask the class how they might show that the gaps between of them are different, hopefully coming to the conclusion that you could space the cards out differently to show the different sized gaps.

### ***Toilet Roll Timelines***

A great way to then demonstrate this is with a toilet roll and felt-tip pens. Tell the class they’re going to make a Toilet Roll Timeline and put the 4 ‘people’ from the pretend family on it. Ask 4 pupils to come to the front, each holding the card for a different family member, tell the class that when that family member’s birth year is written on the Toilet Roll Timeline they all have to shout out ‘baby’ or ‘child’ etc. and then that drawing will be placed on the timeline. Now start to unroll the toilet roll, ask another pupil to come to the front and use the felt-tip pen to write the date

of the year it is now (2020) on the first sheet, then ask another to write the date of the previous year (2019) on the next sheet – everyone should now shout ‘baby’ and the pupil holding the baby card places it on that sheet of toilet roll. Continue with labelling the sheets and adding the family cards, once you get to the ‘parent’ in 1990 speed it up by now counting back in 10’s and only labelling the years ending in ‘0’, until you reach the ‘grandparent’. You could then add to the time line by asking/ knowing who’s birthday in the class is closest and asking them what year they were born, then getting them to stand on that year on the timeline, likewise you could add yourself and/or your classroom assistant(s) on to the timeline, to make it a living timeline. Get all the pupils to come up and look at the timeline, so they can really see how big the gaps (number of sheets of toilet paper) are between each person on it. This fun task will stick in pupil’s minds and help to embed the basic concepts of chronology. If you feel it is appropriate for the pupils in your class you could even set it as homework for them to go home and recreate a toilet roll timeline for their own family and anyone else who lives in their home – even adding when the pet dog/cat was born!

### ***Getting a ‘Measure’ of Past Events***

Having introduced the concepts needed archaeology is then an excellent way of expanding on this and giving pupils the bigger picture and broader narrative. Pick three images of relevant historical/archaeological events or sites, two of which you know that the pupils will recognise as being a really modern thing (a photo of a recent national event like a royal wedding or a new local building they’ll recognise such as a shop or block of flats etc. all depending on age/knowledge of pupils) and one thing they’re likely to know/understand as being really old (Stonehenge or any other well-known national archaeological site). Then introduce a third image (e.g. a well-known castle/church or something that relates to the history topic you’re about to teach) and ask pupils to compare it to each of the first two images and think if it seems older or younger. This creates their first truly historical sequence. Then every time you cover a new period/era in your history lessons pupils learn where to put it on the timeline. Ideally these 3 images should become your class timeline and go up on the wall(s) around the room.

These activities then lead on to the concept of duration – having begun to understand what happened when the next thing for pupils to understand about archaeology and history is how long did it last for? Getting things in the right order is more important than dates to start with – knowing how to put say Romans, Vikings, First World War in the right order is more important for understanding chronology than just reciting 43, 793, 1914. Pupils need to understand that each period they study has a start date and an end date, so for Romans 43 and 410, Vikings 793 and 1066 and First World War 1914 and 1918. This is where a small amount of money spent

on a 30m tape measure will last you a lifetime and ensure your pupils really get it – using 1cm for 1 year means you can travel back 3,000 years, to the end of the UK Bronze Age! You'd need a 110m tape to get you to the end of the UK Stone Age and a 10km one to get to the start of the UK Stone Age! This is the next level of progression up from the Toilet Roll timeline you did to introduce the concept and it helps pupils understand time spans, both within a 'period' and overall – so with this example pupils mark the start and end dates along the 30m tape/timeline and see that the Roman period lasted 367cm or 367 years from 1977cm to 1610 cm along the tape (2020-43 = 1977cm, 1,977 years ago for the start of the Roman period, 2020-410 = 1610cm, 1,610 years ago for the end of the Roman period and the difference between the two dates is 367cm), whereas the First World War lasted 4cm or 4 years (2020-1914 = 106cm, 106 years ago for the start of the First World War, 2020-1918 = 102cm, 102 years ago for the end of the First World War and the difference between the two dates is 4cm). This helps pupils understand that 1. the First World War was quite recent, starting only 106 years ago compared to the Romans who arrived 1,977 years ago; 2. the Romans period was a lot longer than the First World War, nearly 400 times longer! The visual aspect of a tape measure timeline really helps get these concepts across. It is also helpful to mark each period of time on the tape using clothes pegs and either coloured ribbon on wool, to fully emphasis to pupils the length of different periods of history/archaeology. It also becomes a constant activity that you can repeat every time you cover a new topic in the classroom. This approach can be supplemented by the use of online timeline resources such as Historic England's 'Using timelines to embed chronology' (Historic England Education, 2016d) and 'Timeline – Stone Age to Iron Age' (Historic England Education, 2016c).

## **The Power of 'Real' – Using Current Archaeological Excavations and Research to Inspire Pupils**

It is important for pupils to understand that new archaeological discoveries are being made all the time. Part of the excitement of using archaeology in the classroom is that pupils can sometimes follow archaeological excavations online as they happen or as they happened via online 'dig diaries'. One excellent example of this was the excavation of a Bronze Age village at Must Farm in Cambridgeshire. This was a 10-month excavation of a settlement that was destroyed by fire, causing it to collapse into a river channel, preserving the contents in situ. Throughout the project the archaeologists published Dig Diaries (Must Farm, 2016) allowing pupils to follow their progress and learn about new discoveries – literally as they happened. The continued presence of such diaries on the web means they are available as an on-going resource for teachers, who whilst not able to use them 'live' with pupils can still use them to recreate the findings from the excavation and create that same sense of wonder at will be discovered next! Sites such as Must Farm also provide opportunities for pupils to learn not only about specific periods from history, but also the range

of skills needed and careers available within archaeology. Pupils learn the basics of what an archaeologist does in term of traditional ‘digging’ skills, but by using follow up activities they also learn about the range of specialists required from surveying and photographing the site, to analysing the artefacts after the ‘digging’ has finished. This can provide an excellent route into the STEM (STEM Learning *About us*) (science, technology, engineering and maths) skills required in post-excavation, such as pottery experts who examine not only what materials pottery is made from but it’s regional stylistic variations, bone experts who identify species of both animals and human, plant experts who look at everything from the plants people ate to what colour dyes could be made for clothes, radiocarbon experts who can provide amazingly precise dates for artefacts or events and many more highly specialised and technical careers. Other examples of using archaeology to teach STEM can also be found in the STEM online resources *bank* (STEM Learning *Results for “archaeology”*).

Moving from the sciences to the arts the role of the archaeological illustrator provides an excellent opportunity for archaeological learning within the classroom. The concept of using archaeological evidence to create accurate reconstruction drawings of the past is one that works particularly well with primary age pupils, as it is a mixture of evidence and imagination. The evidence (or lack of it, as shown by the earlier Rubbish Bag game) can be presented to pupils, who then have to use it to create realistic drawings or written descriptions about what people and places might have looked like in the past. The added bonus of this is that pupils can be inspired by the knowledge that their drawing is just as valid as that of any archaeological illustrator, because most often archaeologists can’t be 100% sure about what life was like in the past – so pupils’ interpretations are just as valid. In the case of Must Farm pupils were asked to produce reconstruction drawings of both the inside and the outside of the houses that were found on the site. Evidence for the outside of the houses consisted of:


- Houses in the Bronze Age were round.
- The walls were made from willow woven around ash.
- The houses were held up by rings of big posts.
- The roof was held up by wooden rafters.
- There was a fence around the houses.
- Grass and clay were found where the roof fell in.
- Sheep poo was found inside and around the houses.
- Some of the animal bones found around the site had been gnawed by dogs.
- The village was built over water.
- The types of snails, insects and plants found would have preferred very slow moving water, more like lake than a fast moving river.
- Trees growing nearby included hazel, oak, lime, and elm trees (Historic England Education, 2018b).



This simplified, yet detailed, summary of the findings allowed pupils to really get to grips with how Bronze Age houses might have been built and what the village might have looked like as you walked (swam, rowed!) up to it. Which combined with the evidence from inside the houses gave a very complete picture of how people might have lived in the past, allowing them to make direct comparisons between their lives today and those of people in the past. It is well established that the ‘enquiry’ method is one of the best ways for pupils to learn history. So using real archaeological sites to frame an enquiry is an example of best practice and fits well with schools who are increasingly looking to follow the ‘mantle of the expert’ (WIKIPEDIA, 2019) method of teaching, only using real, rather than imaginary, scenarios. It can also lead to more nuanced discussions about societies by examining stereotypes around artefacts such as jewellery, weapons, mirrors and domestic cooking and sewing objects. Does their reconstruction drawing have a woman using the cooking and sewing objects or using the weapons? Here archaeology provides a ‘safe space’ for discussions around potentially sensitive subjects such as gender-stereotyping. State or charitably funded archaeological excavations are now often required to produce teaching resources as part of their funding schemes, so nationally important sites like Must Farm, often produce free sets of resources specifically for use by teachers, such as those for this site – Must Farm – Life in Bronze Age Cambridgeshire (Historic England Education, 2018b).

## **Rock Art – Extended Concepts of Abstract and Representative, Culture and Belief**













Continuing on the themes of art and beliefs, the archaeology of British Rock Art provides teachers with an opportunity to incorporate art, history, culture and science into one lesson, whilst also providing some genuine mysteries for pupils to investigate and create their own valid hypotheses about. Start by introducing pupils to the concepts of representative and abstract art – use examples of abstract and representative paintings to help pupils see the difference between the two. To help pupils do this download and print out the Historic England Symbols Quiz (Historic England Education, 2018b), as shown in Figure 1, to use as a Starter Activity. Let pupils work together in teams to do the quiz – it’s a fun challenge to get them thinking/talking, not an actual test. Get pupils thinking about art/images as a form of writing/language – lead them to understand that they can ‘read’ these symbols because they’re part of ‘their culture’. Ask pupils to pick out the symbols that are ‘representative’, i.e. look like an actual, physical object that they could touch. Then focus on all the symbols in the quiz which are taken from a music device – play >, fast forward >>, pause II, rewind <<, etc. All of these symbols are ‘abstract’, so use them to start a discussion about how we use our own culture/time period to ‘read’ symbols all around us – how might people from the past have interpreted/‘read’ these symbols? Would they have been able to understand them?



















**Worksheet**  
Symbols Quiz for Prehistoric Rock Art Teaching Activity

What about these too!

**Can you work out what these symbols mean?**  
Throughout history people have communicated by drawing pictures or symbols instead of using words to get their message across. In pairs or groups try to 'read' each of these symbols and write down what you think it means.

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This worksheet is intended to be used with the Teaching Activity: *Prehistoric Rock Art: Make your own Rock Art*. The answers to this quiz are in the PowerPoint: *Prehistoric Rock Art: Make your own Rock Art*

Website: [historicengland.org.uk/education](http://historicengland.org.uk/education) Email: [education@historicengland.org.uk](mailto:education@historicengland.org.uk)

**Figure 1.** Symbols Quiz (Historic England Education, 2016a).

Explain to pupils that for thousands of years and on every continent in the world people have expressed their thoughts and feelings by drawing, painting or carving pictures on to rock/stone surfaces, or using individual rocks/stones to make patterns and shapes. Archaeologists have given these techniques special names: petroglyphs are pictures carved into rock/stone surfaces, like those found at Creswell Crags (*Creswell Crags Museum and Prehistoric Gorge*), Derbyshire, UK, pictographs are pictures drawn or painted onto a stone surface (be that a cave wall or a pebble), like those found at the Lascaux Caves (*UNESCO Prehistoric Sites and Decorated Caves of the Vézère Valley*), Dordogne, France and petroforms are pictures laid out on the ground using stones, like those found at Whiteshell Provincial Park (*Government of Manitoba Eastern Parks*), Manitoba, Canada.

Having set the scene you can now show them real rock art symbols that have been found here in England.



**Figure 2.** Prehistoric Rock Art, Doddington, Northumberland, UK (Historic England Archive, 2003).

Compare them to the abstract symbols from the music device and explain to pupils that archaeologists still haven't managed to work them out. They are a mystery – can your pupils come up with any suggestions/hypotheses to help out the archaeologists? If your pupils are also studying/have studied the Egyptians you could introduce pupils to the Rosetta stone (The British Museum Blog, 2017) and explain that before it was found archaeologists could only guess at what Egyptian hieroglyphs meant, but because the Rosetta stone had the same message written in three different languages they were able to decipher what the hieroglyphs actually said. It is important for pupils to learn that our understanding of archaeology/history is always changing as we find new pieces of evidence. Just because we don't know what the British Rock Art symbols, such as those shown in Figure 2, mean now, it doesn't mean we won't ever be able to work it out – we just haven't found enough evidence yet. Pupils could even have a go at making their own 'rock' as part of Historic England's Rock Art teaching activity (Historic England Education, 2016b).

## Practical Experiments with Archaeological Concepts – Growing Cress to Show How Cropmarks Work



**Figure 3.** Cropmarks showing a Prehistoric ceremonial landscape near Eynsham, Oxfordshire (Historic England Archive, 1995).

The use of practical experiments within the classroom can provide an engaging way of enabling pupils to understand broader archaeological concepts. This technique works particularly well for the subject of cropmarks. A cropmark is a shape, or mark, left behind by earlier monuments or buildings, that can be seen in fields where crops are growing when the conditions are right – often hot, dry summers. These buried archaeological features can affect the rate of growth of crops planted into the soil above them. Ditches, pits and other features dug into the subsoil provide a greater depth of soil than can be found in their immediate surroundings. This can lead to enhanced growth of the crop immediately above them, making the crop taller and stronger. Alternatively, a reduction in soil depth caused by a buried wall foundation or compacted surfaces like floors or Roman roads, can lead to reduced growth of the crops growing over them, making them shorter and weaker. From above, the patterns created can be observed from visible differences in crop colour and height during various stages of the growing season, as shown in Figure 3. This process can be seen in this Historic England info-graphic video clip (Historic England, 2017). It is one of the main ways new archaeological sites are discovered. Many remain unexcavated, but knowledge of their existence and location is added to national databases, meaning they can be identified in advance of any future invasive development. To demonstrate this effect, pupils can create their own cropmarks in the classroom using seed trays, soil, gravel and cress seeds. Divide the class into groups, give each group two seed trays and get them to fill both three-quarters of

the way up with a mixture of equal quantities of soil and gravel and level it off. Then using a teaspoon get them to dig out ‘archaeological’ features – round ditches for an imaginary roundhouse or straight lines for a Roman road etc. Then in one tray they fill their ‘features’ with pure soil and in the other they fill them with pure gravel. Each tray then gets a very thin (1-2mm) layer of soil sprinkled over the top to ‘bury’ the archaeological features they’ve just dug. Now each tray gets an even sprinkling of cress seeds over the top and is watered. The trays are then left on a sunny window ledge for a week. After the week, and hopefully during it too, pupils can see how the cress has grown and if there are any differences between the two trays. They should now have their own cropmarks to examine. If you wanted to take this to the next level you could have each group use tracing paper or graph paper to draw a plan of where the ‘features’ are in their tray – being sure not to let any of the other groups see their plan. Then after the week, when the cropmarks are ready, different groups could try to identify each other’s features and work out what their archaeological site looked like! A similar resource (Young Archaeologists Club, 2020b) for this activity has also been produced by the Young Archaeologists Club (Young Archaeologists Club, 2020a), the only UK-wide club where 8-16 year olds can participate in real archaeology and discover why it matters.

## Conclusion

Archaeology can provide a stimulating and exciting range of additional activities for teachers to use to supplement their teaching of history within the classroom. It provides a plethora of opportunities for individual exploration and interpretation of evidence, allowing learners to develop and express their own opinions. This can be in stark contrast to many traditional perceptions of history as the recitation of a collection of facts and figures learned by rote. As institutions such as Ofsted are starting to embrace less prescriptive ways of teaching, such as their new focus on a ‘broad and balanced’ curriculum (new OFSTED: *The education inspection framework* from September 2019) the power of archaeology as a tool in the primary classroom can only increase.

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## **AVARS AND SLAVS: EDUCATIONAL PROGRAMME ACCOMPANYING THE INTERNATIONAL EXHIBITION AT THE ARCHAEOLOGICAL MUSEUM IN ZAGREB**

### **Abstract**

The paper describes an educational programme designed and created for the international exhibition Avars and Slavs. The educational programme consisted of several units, aimed at all ages, children, young people and adults. It was realized in collaboration with an academic artist and designer. Among other things, it was implemented in the exhibition as well as in a specially arranged educational space. The goal of this programme is to actively engage the audience in the exhibition through various educational – interactive materials, exhibitions and material sources.

**KEY WORDS:** AVARS AND SLAVS, EDUCATIONAL PROGRAMME, WORKSHOPS, EDUCATIONAL PUBLICATION, EXHIBITION, DIDACTIC WORKSHEETS, PUBLIC RATINGS, CUT-OUT CHARACTERS, COSTUMES/EQUIPMENTS, EDUCATIONAL SPACE, CROATIA.

*In March 22nd, 2020 The Archaeological Museum in Zagreb was the victim of a devastating earthquake. It is difficult to say when educational programmes such as the one described here will be able to take place. Therefore, I dedicate this paper to all my colleagues who are striving to revive the Archaeological Museum in Zagreb.*

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## **AVARS AND SLAVS: EDUCATIONAL PROGRAMME ACCOMPANYING THE INTERNATIONAL EXHIBITION AT THE ARCHAEOLOGICAL MUSEUM IN ZAGREB**

### **Introduction**

Forty years ago, in 1980, Jurković and Tomić spoke about the multiple value of the mutual cooperation between schools and museums. The museum is a place in which the pupil, using appropriate sources of knowledge, develops the capacity for independent work and critical thinking, builds a new attitude towards phenomena by using induction, learns to look at the world around him/her by putting himself/herself in the role of an active researcher. The museum is a place where, due to the abundance of thematically distributed sources of knowledge, a valuable didactic principle of individualization of the educational process can be applied in any sociological form of work. In the museum, the pupil can satisfy his/her intellectual curiosity, expand, upgrade and develop new ones (Jurković & Tomić, 1980, p. 23). This could even be applied today in the schools and museums cooperation, with museum's educational/pedagogical departments playing the largest role. The Pedagogical Department of Archaeological museum in Zagreb has existed since 1994, but the beginnings were neither simple nor easy, especially considering that in 1998 the title of the museum educator was introduced into the Museums Act in Republic of Croatia. From the very beginning until today, i.e. for 26 years, the staff of the Pedagogical Department have been designing and implementing various educational programmes for the museums' visitors. In the last few years, programmes accompanying large exhibitions have intensified, thus completing the purpose of the exhibition itself.

Most of the visitors at the Museum are elementary and high school pupils. The new school history curriculum for elementary schools and gymnasiums in the Republic of Croatia determines visits to a museum, heritage institution or archaeological park as part of the extracurricular classes (NN 27/19, Decision on the adoption of a curriculum for history subjects for elementary schools and gymnasiums in the Republic Croatia, Official Gazette 27/2019). Many history teachers in their annual curriculum mention a visit to the Archaeological Museum in Zagreb. One of the important tasks of the Pedagogical Department is to make the Museum closer to all visitors in order to develop interest and create a new active audience. For this reason, the Museum organizes programmes for the school population related to the permanent exhibition and their regular history education, as well as special programmes accompanying large exhibitions, intended for the school population, individual visitors, children, young people, adults, and therefore all age groups. The Pedagogical

Department of the Archaeological Museum in Zagreb not only deals with school children, but also communicates with individuals and groups from preschool to the elderly, as well as with persons with different intellectual and/or physical disabilities.

## **International Exhibition Avars and Slavs**

### ***The International Exhibition Project***

The international exhibition project Avars and Slavs is a result of a cooperation between the two Croatian Museums: the Archaeological Museum in Zagreb and the Municipal Museum Vinkovci, in collaboration and support of the Danube Region Museum in Komarno, Slovakia (Dugonjić & Rapan Papeša, 2019, p. 9).

For the first time the exhibition project displays the Croatian general public the cultural and historical heritage of the period which preceded, or is parallel to the settlement of Croats to the Croatian territory, that is, the period which spans from the 6th to the middle of the 9th century (Dugonjić & Rapan Papeša, 2019, pp. 9-10).

### ***The Historical Background***

The decline of the Roman Empire at the end of the 4th and the beginning of the 5th centuries can be seen in the withdrawal of Roman military troops from the western parts of the Carpathian basin, from those areas (*limes*) that could no longer be defended. This outer area of the Roman Empire was inhabited by various Germanic and nomadic people. They fought among themselves, threatening and pushing one another out of the occupied territory. After the departure of most of the German population to the west, the Slavs first appeared even before the end of the 5th century. However, it is usually considered that the Slavs began to settle in Pannonia along the very edge of the central Danubian region in the middle of the 6th century. The Slavic conquest was related exclusively to the Avars, which in other words means that the Slavs did not appear in the Carpathian basin until the second half of the 6th century. The Slavs migrated in several waves across the mountain passes from their ancestral homeland that extended north of the Carpathians (Dugonjić & Rapan Papeša, 2019, p. 13).

The Avars were Asian nomads of unknown origin. After the departure of Langobards, they established the First Avar Khaganate in the Carpathian Basin. In addition, they formed an elite society of nomadic horsemen, including other populations, such as Slavs and Germans (Babić & Mrazek Lugarov, 2019, p. 9).

## **Educational Programme Avars and Slavs**

### ***Presentation***

In addition to the Avars and Slavs exhibition, a rich educational programme was designed for all ages. The programme consisted of several sections of workshops and interactive content and practice with material sources. Depending on the age of the participants and the processed topic different didactic – methodical approaches and material sources were used. The most common approaches were conversation and discussion method, demonstration, research, critical thinking, drawing/colouring, creative expression and modelling methods. All the mentioned didactic and methodological approaches will be described in detail in the description of each workshop.

There were several types of tasks related to the exhibited material. Most of these were visual tasks (colouring pages), followed by practical tasks or questions (drawing and/or designing jewellery by the pattern that was exhibited, embossing copper sheets), research tasks (describing parts of a warrior's belt or parts of a reflex arc; noticing the differences between graves shown) and others similar to those.

The aim of this programme was to bring the subject matter, content and theme closer to the audience. Part of the interaction of the educational programme was also interpolated into the exhibition itself. The author of the entire educational programme is Zorica Babić, a senior museum educator at the Archaeological Museum in Zagreb. The programme was realized in cooperation with sculptress and academic artist Ana Horvat Mrazek and designer Ana Mrazek Lugarov. This programme was co-financed by the Ministry of Culture and the City of Zagreb's Office for Culture.

Pedagogical – didactic processing of museum content should be in accordance with the age of the visitors we are addressing, prior knowledge and interests of the target age group. The extent of the museum's content, the level of informativeness, which implies a certain selectivity of information, simplicity and uniqueness of the vocabulary, and transparency and visual appearance are important elements in the diverse performance (Radovanlija Mileusnić, 2013, p. 20) of interactive educational materials of educational programmes.

### ***Educational Space***

For all educational programmes, workshops, lectures etc., it is necessary to have an adequate educational space at the museum institution. The Archaeological Museum in Zagreb did not have adequate room for many years and the workshops were held

in available rooms or within the permanent exhibition itself. Of course, such a realization was not done on a quality level because many things were missing, such as tables and chairs, and participants had to sit on the floor. Since 2017 the Pedagogical Department has been given an educational space, albeit small, but still permanent. With this exhibition, it was decided to properly arrange and equip the room to be familiar to the audience and thus invite them to participate in all events. Four tables 2 meters long, previously painted in vibrant colours (blue, red, green and orange), along with 30 red and white chairs, were installed in aforementioned room. Large wall stickers were affixed to the walls that depicted the everyday life of an Avar and Slav societies. It was taken in consideration that the labels communicated with the audience, with and without the exhibition, or that the motifs displayed were in some way adaptable to other later exhibitions. In fact, the educational space is located on the first floor of the Museum, which is intended for temporary exhibitions. The room is not enclosed from other rooms, but is connected to the exhibition part and thus must be passed through. On the one hand, this is not a bad thing, since the audience who visits an exhibition has to go through the educational space upon its exit. That is why the room itself is always functional, regardless of whether there are workshops at present, thus communicating with the audience.

Along with the tables, chairs and wall stickers listed, a white board was placed on one wall to interact with each workshop, to announce upcoming educational events or to present works by the audience.



**Figure 1.** Educational space. Photo: Igor Krajcar, 2019.

## ***Cut Out Characters***

Among other objects, the exhibition *Avars and Slavs* was also interactive where replicas were used for props that could be tried on, like pieces of belt equipment, sword and others. Additionally the interactive characters were manifested in the set of two cut out characters, one with an image of an Avar woman and the other with a representation of a Slavic man. The characters are 150cm high to make it more accessible to children's audience. Naturally, the characters could also be used by adults. The aim of these characters is to enable all the visitors to be photographed as Avar woman or Slav man, and thus each person makes his or her memory of the Archaeological Museum in Zagreb and the exhibition itself. To all the visitors these characters were very entertaining and endearing so they managed to create a friendly atmosphere among the audience in the further exploration of the exhibition.



**Figure 2.** Cut out character of the Avar woman in exhibition. Photo: Zorica Babić, 2019.

## ***Costume/Props***

Each workshop organized at the Archaeological Museum in Zagreb must be accompanied by expert tour guidance. In this regard, the workshops held during the exhibition Avars and Slavs also included expert tour guidance. During the exhibition guided tours without workshop were also held. In order to make every tour guidance more effective, interactive, friendly and understandable to the audience, two costumes for tour guides were created, one costume of an Avar woman and the other costume of a Slavic man. That way tour guides identified themselves with the Avars and the Slavs, and spoke in the first person. This was very interesting for the audience, especially the younger ones, who did not experience tour guided as a desolate lecture, but as an interaction with a guide/Avar woman/Slavic man. Visitors were able to ask a variety of questions, get interesting answers and, most importantly, take pictures with them.



**Figure 3.** Costume guide in Slavic man and Avar woman. Photo: Igor Krajcar, 2019.

## ***Didactic Worksheets***

Museum publishing for children and young people is an important segment of the museum's publishing activity, which has its specific features and a very specific communication role within the overall work of the museum as a public institution. It is a part of the educational publishing corpus of the museum, whose primary purpose is education, i.e. the development of physical, mental and moral abilities while also raising and educating the museum audience (Radovanlija Mileusnić, 2013, p.19).

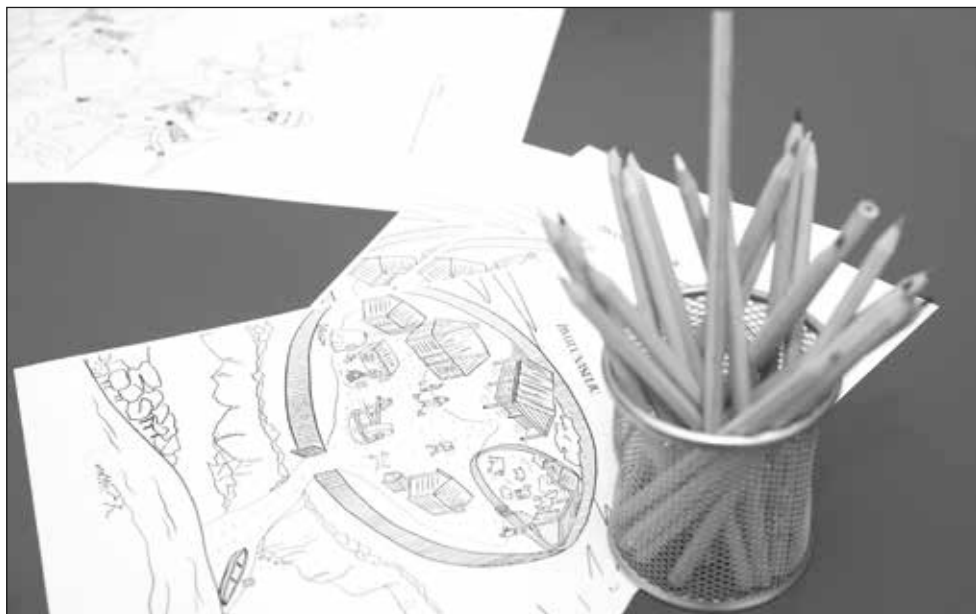
Didactic worksheets served to motivate visitors, get them acquainted with particular objects in the exhibition and to actively tour the exhibition. They provide information on museum artefacts, make their work more complete, engage and send the message that learning is exploration and adventure! (Ibid., p. 45).

For the purposes of the educational space, various didactic worksheets were made so that it could communicate with the visitors at the time when the room is not used for the workshop. In that case the visitor can individually participate at any time.

The worksheets are distinguished among particular age groups, the type of museum content and the method in which they are filled and produced (Ibid., p. 47). Simona Tripkovič emphasizes the need to value the principle of suitability. This means that when designing educational museum worksheets, different age, maturity, ability to understand and foreknowledge of the users to whom the worksheets are intended are considered (2006, p. 188).

The didactic worksheets were prepared with different motives of the Avar and Slavic's society (woman, family, horseman – warrior, village, war equipment, horse and horse equipment, etc.) that needed to be coloured, supplemented, answered and so forth (Runes, jewellery, settlement). A large number of these worksheets were taken by the visitors and had to be replaced daily. This was an indication that all visitors, regardless of age, were interested in participating and staying in the educational space. All functional parts of the settlement and war equipment were written on a white board and could be combined with didactic worksheets. Worksheets, in addition to their didactic purpose, also had a fun purpose for all visitors regardless of age.





**Figure 4.** The didactic worksheets. Photo: Igor Krajcar, 2019.

### ***Workshops for Children and Young People***

During the Avars and Slavs exhibition, there are specially designed workshops for children and young people within the educational programme. As such, they were offered to school groups and individual visitors. Workshops for school groups were held in specially arranged terms, while those for individual visitors were held during three Saturdays while the exhibition lasted.

The workshop programme for school groups consisted of three types of workshops. Each workshop was linked to a specific group of materials, and its purpose was to stimulate pupils' creative thinking and expression and tools and materials management. All the participants of all the workshops took with them everything what they had produced. Each workshop lasted up to 45 minutes, depending on the size of the group, their age and skills. Also, each workshop required a tour guidance through the exhibition. The guided tour of the exhibition also lasted 45 minutes, allowing two groups of pupils to go through the programme in parallel at the same time. It is very important to provide this type of visit to school groups, because in most cases they come with 50 or more pupils, who must be split into two or more groups and need to be arranged within specific time intervals. Since there is only one workshop room, the one mentioned earlier, the Museum can only receive two groups at a time, where one group is visiting the exhibition while the other one begins with the workshop and then swapping places after 45 minutes.

Methodological – didactic processing of the topic at the workshops consists of methods of working with original museum objects, i.e. material sources, interactive hands-on method and a method of practical work. All of these are connected by talking, narrating and describing, i.e. verbal methods. Three workshops were offered: Metal processing, Jewellery making and Leather and textile, which were conducted in three parts. In the first part of the workshop the method of working with original museum objects was used – both material sources and the verbal method. It is also necessary to start the workshop with interactive tour guidance. In the second part of the workshop, with the help of specially made props (costumes, warrior belt, sword) and cut-out characters of Avar woman and Slavic man, using the hands on method a shorter sketch of a prince/warrior or a Avar woman could be interpreted. The third part of the workshop is a didactic phase where pupils used a method of practical work to produce a certain item: copper plate with embossing technique, jewellery with bending technique and/or leather cover for notebook and/or leather wallet with puncturing and sewing technique.

### ***First Workshop: Metal Processing***

In the Avars and Slavs exhibition many metal objects were exhibited, mostly bronze, silver and gold. These artefacts were related to various utilitarian works. The crafts of the Avar and Slav societies were specially exhibited. Through the story about crafts, pupils were provided with detailed information about metallurgy, metal processing and producing a metal item. There was talk about casting, forging, taping and pressing techniques, also the “lost wax” casting technique and casting “on sand” technique. After a rough processing of metal, there was talk about fine processing such as surface trimming, polishing and glazing, and after these techniques came decorating. Pupils were able to recognize the mentioned metalwork techniques on the exhibited artefacts.

Workshop Metal processing consisted of copper sheet, wooden sole, large nails of various finishes, hammers, tracingpaper and rope. Pre-cut 10x15cm copper sheet was placed on a wooden sole and a piece of tracingpaper was taped over it. The pupils drew a motif with a pencil on the paper and proceeded to hammer it on a copper sheet. When tapping, they had to be careful which nail, or what end of the nail, they would use for the motive parts. The pupils learned how to properly place the nail on the copper sheet and with how much force they should hit the hammer with it. The cacophony of hammer blows at such a workshop with 20 pupils was both deafening and cute, because the discomfort in the museum means that the museum breathes. After tapping their motive over a copper sheet, they drilled two holes with a paper puncher through which they tied a rope. In that way, they could hang their metal sheet on a wall, door, or some place that they specially liked. The motifs they were making were very different, from those related to the exhibition to

those of their imagination. In choosing a motive, pupils are never limited in their freedom of expression.

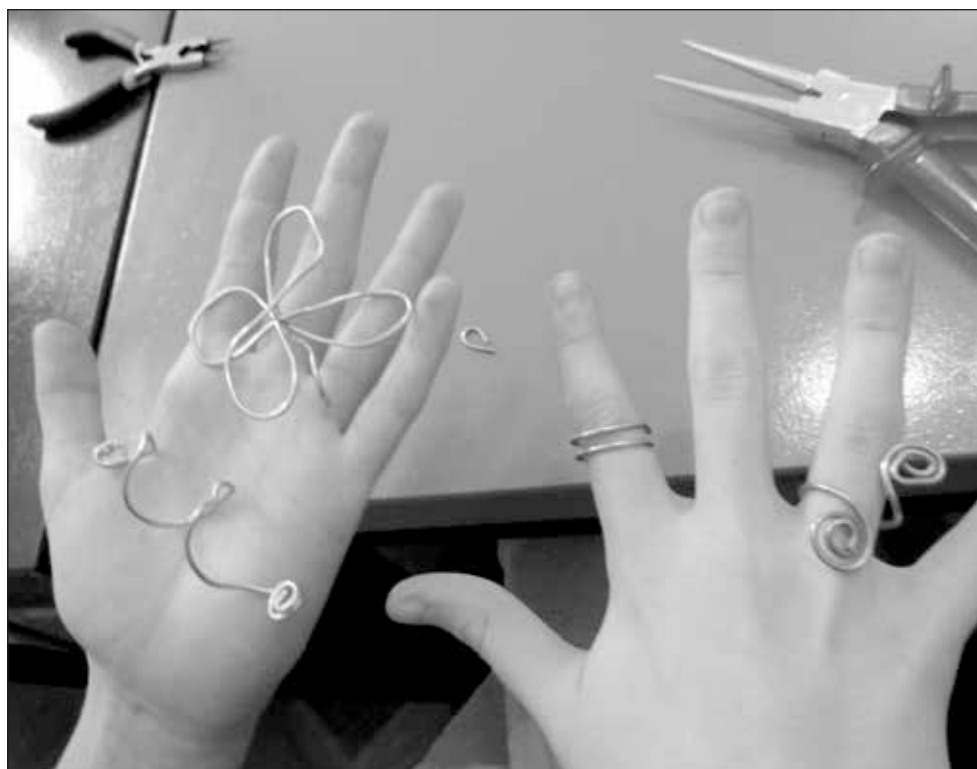


**Figure 5.** Items made at the workshop Metal processing. Photo: Zorica Babić, 2019.

## ***Second Workshop: Jewellery Making***

The majority of metal artefacts exhibited at the Avars and Slavs exhibition belong to different types of jewellery. During the time of the Avar and Slav societies, jewellery was made in different ways. It is characteristic for the Avars to own gold jewellery because Byzantine Empire paid them tribute in gold. The Slavs, the oppressed people of the Avars, mostly made their jewellery in silver. The jewellery found in the Avaric and Slavic graves is an indication to whom the grave could have belonged.

The simplest jewellery is often made of metal wire. The participants of this workshop made jewellery with copper wire of different thickness. The materials which were used in production were: copper wire, bending pliers for forming the wire and laces for pendants. This workshop was technically less demanding than the Metal processing workshop. It was also faster to master, so participants were able to produce more than one item. Participants mostly made pendants and rings, and in some cases, bracelets. Besides children and young people, this workshop was also visited by groups of adults who found this very relaxing.



**Figure 6.** Items made at the workshop Jewellery making. Photo: Zorica Babić, 2019.

### ***Third Workshop: Leather and Textile***

The exhibition of Avars and Slavs contained interactive parts relating to their clothing. Since organic materials are difficult to preserve and rarely survive after so many centuries, most things were reconstructed. The Leather and textile workshop was designed based on these reconstructions. At this workshop participants were making notebooks and/or wallets out of leather. This is a complex workshop that must be adapted to each age in detail. Before the workshop, it was necessary to prepare all materials needed. All participants had to follow several production steps. The first step was to measure the notebook on the leather. In that way they knew how much material they needed. After that they separately marked the parts for inserting the cover. Participants cut out all the necessary pieces they needed themselves. At the edges of all leather parts they punctured holes, each at a distance of 0.5 cm. They got ropes and wools to connect leather pieces through previously punctured holes to fit them in one notebook cover. Finally, they put the hard-cover notebook in its cover. Those participants who made wallets were given a pre-made template by which they cut out leather parts. They also punctured holes to pull the woollen strings through and connect all the pieces together.

In this workshop, participants improved their motor skills and patience. All participants were very pleased with the ultimate result, i.e. leather notebook cover. They were also surprised with their own ability of making such an item.

### ***Workshops for Adults – Ceramic Cycle***

Lifelong learning is a familiar term and can have different contexts. This type of learning emphasizes the activities of the recipient. When it takes place in a museum, it is a choice, not a compulsion. Adults get involved in something because of their own interest, a need to find out something about their business, family, or community. The aim of adult's learning is not to memorize and accumulate information, but rather to explore new ideas, share experiences, and come to new conclusions and discover hidden talents. Adult audiences are autonomous and self-directed (Kiurski, 2018, p. 80).

Through some previous educational events, it was noticed that adults often gladly participate. Because of this, it was decided to add workshops for adults about ceramic. The workshop was designed in cooperation with academic sculptor and artist Ana Horvat Mrazek and was held in a three terms. The first term contained working in maiolica, where participants learned about initial techniques for working with clay, types of clay, decorating, types of baking and so on. In the second term the participants were familiarized with white clay and its' usage. The third term was planned as an exhibition of products which were made, but all of the participants

wanted to continue working on various clay objects. These workshops for adults took place in the evening terms, after work, so all who came stated that this was a good way for them to relax and a time where they could learn something new. The conclusion is that creative workshops for adults have multiple purposes, connecting the museum as a pleasant and relaxing institution. The accent of workshops was placed on the ceramics of the Avar and Slav societies, but even adult participants were given freedom to express themselves in some other motifs. There were some very interesting artistic creations along with the motifs they could encounter at the exhibition. The clay products which they made were baked after in a ceramic oven and given back to their owners.

### ***Publication “Avars and Slavs for Children and Youngs”***

Publications for children and young people are necessary part of museums' communication to ensure that the target group has access to the knowledge about the museum and its activities and to interpret material with specific educational aims (Maroević, 2001, p. 10). In addition, educational publications contribute to the diversity of entire museum publishing and prepare new generations of future museum visitors (Jelavić, 2013, p. 9).

As a crown of the educational programme “Avars and Slavs”, illustrated educational publication “Avars and Slavs for children and youngs” was designed and produced by the author Zorica Babić and the illustrator Ana Mrazek Lugarov. This publication, a type of an educational/pedagogical interactive guide of the exhibition, is primarily intended for children and young people between the ages of 11 and 15, i.e. students in sixth grade of elementary schools and second grade of high schools. The publication can also be used outside the exhibition and thus becomes an auxiliary teaching material in history classes. As such, it has been used by history teachers to teach material regarding the Great migration, the Avar and Slavic societies and the time of the early Middle Ages. Selecting such museum publication is a conscious choice of the one who designed the programme or the user of the programme, and the selection is carried out in accordance with the educational aims that are to be achieved (Ibid., p. 9).

The cognitive, social and emotional development of children should be considered as well as the development of perception when creating museum publications for children and young people (Ibid.). The publication is designed to be educational and interactive, and the text is applicable to almost all ages. This means that it is neither too light nor too heavy, but interesting and educational enough to pull the reader into further research. The text emphasizes interesting things, as well as individual tasks that address the reader to respond, to research, to think, but also to visit the Museum again. When the text is presented as part of an exhibition, it reaches for

the interpretation. The same procedure is followed when writing publications for children and young people. Technically incomprehensible terms should be avoided, but not all of them, as some are useful for learning something new and as such can be used hereafter.

Reflections on the importance of illustrations in museum – educational publications cannot be separated from the educational role of museums and museum – educational programmes. Contemporary forms of communication between the museum and the audience and the initiative to present the museum object, collection or theme by word of mouth to different audiences, different experiences, different intellectual capacities and interests that cause them to visit the museum have imposed new forms of communication in the museum, but also the need to create new ones, interactive museum – educational publications (Brlek, 2013, p. 78).

The illustrations made by the author Ana Mrazek Lugarov in the publication are very distinct, understandable and transparent and follow the colours of the visuals at the exhibition. Thanks to a good illustrator's interpretation of the experience of the museum artefact (with previous materials prepared by the author of the text), the visitor can develop his/her own experience and touch the same museum artefact. In the moment when we adequately intrigue readers with illustrations, especially children and young people, to make contact with a museum artefacts, they are interested in coming to the museum, and the museum – educational publication has completely fulfilled its role. In addition, maps are also illustrated, which are very important for studying history and archaeology, so that the young reader can manage in the current space and understand the past by relating to it better. The relationship between illustrations and text is very important and it has been perfectly achieved in the publication. As children and young people are more visual recipients of information, more care was taken to make the illustrations bright and legible, and to make the text an additional entertainment. Therefore, it is the illustration that first attracts the reader, who then goes on to the text. Good design will motivate the potential user to use the publication and thus increase its value.

The illustration should include all the necessary elements that will contribute to the museum-educational publication being appropriately applied in the museum space during the visit, as well as to generalize knowledge and impressions after the visit to the museum or, in turn, to serve as an impulse to come to the museum and explore the museum's content (Brlek, 2013, p. 80).

## Communication of Educational Programme with Audience

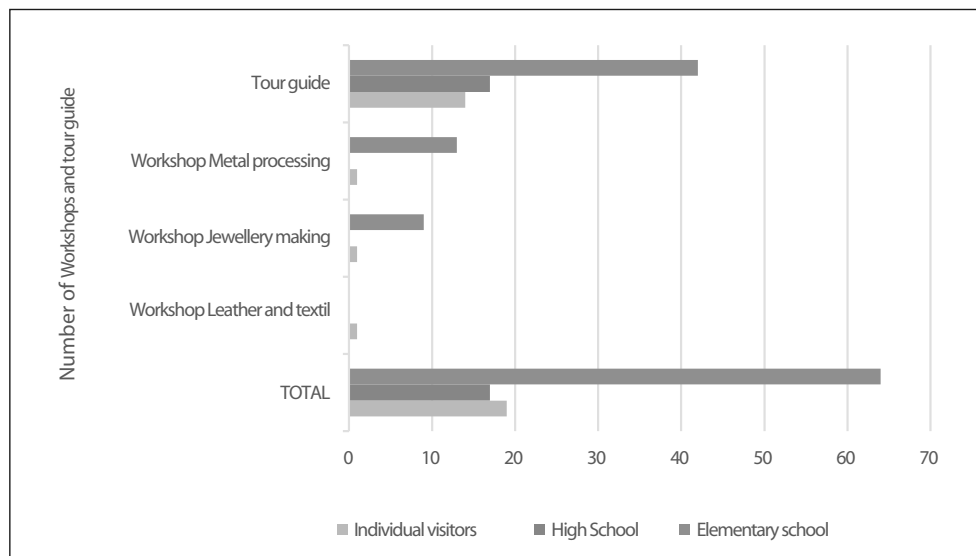
The majority of visitors at the Archaeological Museum in Zagreb are elementary and high school pupils, with an accent on fifth- and sixth-graders and first and second graders. That is why most programmes are designed and organized for the aforementioned audience, indicating that the programme is adaptable to others. As pupils mostly come as part of their school group visits, it is necessary to think in what way and at what time it is best to inform their teachers about a particular educational programme. The Avars and Slavs exhibition opened on October 22, 2019, so it is good to inform teachers about the programme in advance, prior to the opening. That way, all history teachers and related subjects in primary and secondary schools were notified back in June 2019. The reason for this is that during July, teachers prepare their curriculum for the new school year beginning in September, so that they can dispose of this information obtained on time during the announcement of their curriculum. This decision proved to be very effective, so teachers had already started to book their appointments for a certain educational programme since September, before the news of the exhibition itself was even made public.

According to the public, individual visitors and all other interested users, the educational programme presented itself shortly before the opening of the exhibition through the depliant and media announcement in two ways. The first, announcing all educational events during the exhibition and the second, that every single event was announced ten days before it started.

The offer for group of pupils consisted of a workshop of choice between the three existing (Metal Processing, Jewellery Making and Leather and Textile) with tour guidance or tour guidance only without the workshop. Each request made by a group and/or individual visit was registered in the museum calendar together with the name of the school, the number of pupils and the selected programme. In this way, the data was collected during the exhibition, i.e. from 22 October 2019 until 7 February 2020. The Table 1 shows the number of group visits of elementary and secondary school pupils according to each educational programme as well as individual visits.

For individual visitors (those who were not part of any organized group), the workshop Leather and textile was held once, as well as the workshop Jewellery making and Metal processing. Guided tours for individual visitors were held 14 times. Leather and textile workshop for pupils of elementary and secondary school wasn't held. For pupils in elementary school, the Metal processing workshop was held 13 times and the Jewellery making workshop 9 times. High school pupils did not have a Metal Processing workshop or a Jewellery Making workshop. Professional tour guides for individual visitors were held 14 times, for elementary school pupils 42 times and for high school pupils 17 times.





**Table 1.** Number of workshops and tour guide.

The presented table shows that elementary school pupils combined one of the workshops more often with expert guidance, while secondary school pupils only participated in expert guidance. It bears noting that every selected programme is chosen by each teacher for its pupils according to the pupils' affinities and the course of the processed curriculum. It is possible that in some schools teacher conferred with pupils about the chosen programme, but there is currently no such information.

The number of worksheet users in the educational room was not recorded, but considering supplementing the tables in the educational room with new sheets daily (up to 25 new sheets were left per day), a certain average can be reached.

The Avars and Slavs exhibition lasted 90 working days, as did the educational programme. Considering that the educational space was filled with 25 worksheets per day, a total of 2,250 worksheets were used in 90 days. The number of individual visitors during the 90 days was 3,674 (including domestic and foreign audience – adults, pupils, students, pensioners and families). Throughout the entire duration of the exhibition, it can be assumed that 61.24% of visitors ( $2.250 / 3.675 = 0,6124 * 100 = 61.24\%$ ) used at least one worksheet in the educational room. It is very likely that one visitor could have used more worksheets since they were of different content, but the exact number of how much and of which does not exist because this type of research was not conducted.

## Conclusion

The museum becomes a living tissue when the disturbance and hum of the audience is heard in it. Then its value grows and becomes a source and a realization for the future. The Archaeological Museum in Zagreb is constantly trying to communicate with all its visitors through its permanent exhibition and temporary exhibitions, as well as through various forms and methods of educational – interactive work, to mediate through as many collections and artefacts as possible. In this way, the Museum will always be popular and attractive in the current time to today's person.

The basic social aim of museum institutions is to communicate museality and the collected cultural and natural heritage artefacts. The fundamental museological process by which the actualization of the past is implemented is the process of explaining or interpreting objects of material culture preserved in museums or collections (Maroević, 2002, p. 38).

Museums are great places to learn, they can be inspiring for both teachers and pupils. Koraljka Alavanja excellently describes the multiple benefits of learning in the museum: it encourages critical thinking, it makes it easier to connect class material, it increases curiosity, deepens intrinsic motivation, increases conscious activity, encourages creativity and self-expression, encourages the creation of a research spirit (2012, p. 45). In addition to being inspirational places, museums are places where all audiences can get acquainted with the material sources and story of it. Each educational programme at the Archaeological Museum in Zagreb, such as the one described here, aims to tell the story of time and people from which the material source originated. The artefact cannot and should not be on its own, it must have its own story – the story of the person who made it, who used it and, ultimately, left it. It can be the story of a person or people, maybe the whole community that speaks in the past to us in the present with a possible lesson for the future.

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## INTERNATIONAL COOPERATION BETWEEN AN ARCHAEOLOGICAL MUSEUM AND UNIVERSITY: EXAMPLE OF ERASMUS+ TRAINEESHIP

### Abstract

Erasmus+ Traineeship is one of the options available to European students at universities, enabling them to undergo training at various European institutions and companies related to their field of study during their studies. The paper presents two months of international cooperation under the Erasmus+ project between the Education Department of the Archaeological Museum in Zagreb and the Department of History at the Faculty of Arts, University of Ljubljana. The paper shows the progress of the collaboration between a doctoral student of History and her mentor, the head of the Education Department at the museum. The interinstitutional cooperation or the collaboration between the mentor and student has proved to be a very positive experience for both, as they were able to exchange experiences and complement each other's knowledge and skills, while providing an opportunity for further professional collaboration.

**KEY WORDS:** ERASMUS+ TRAINEESHIP, ARCHAEOLOGICAL MUSEUM IN ZAGREB, FACULTY OF ARTS IN LJUBLJANA, MENTORING, TRAINING, COLLABORATION, EXPERIENCE.

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## **INTERNATIONAL COOPERATION BETWEEN AN ARCHAEOLOGICAL MUSEUM AND UNIVERSITY: EXAMPLE OF ERASMUS+ TRAINEESHIP**

### **Introduction**

In today's globalized society, international institutional cooperation is a key factor in the competitive growth and development of activities, either in public institutions or in the economy. The paper aims to explain the purpose, progress and characteristics of international cooperation and collaboration as a successful reciprocal development opportunity for both institutions, namely from two perspectives: that of a young researcher and doctoral student of History at the Faculty of Arts in Ljubljana, and that of the head of the Education Department or mentor at the Archaeological Museum in Zagreb. The presented example of good practice relates to the Erasmus+ Traineeship, which students can take up freely during their studies in any cycle (first, second or third), and which they can carry out in any EU Member State at institutions related to the study programme.

### **Role of Mentor in a Museum**

Mentoring is one of the fastest methods of human resource management as an essential component of progress and an integral part of development management. Hercigonja (2018, p. 1) defines mentoring as a phenomenon in which an experienced person supervises and guides less experienced persons, directing them towards research and involvement in a specific area of work through suggestive actions. Govekar-Okoliš et al. (2010, p. 1) define mentoring in work organizations as a process of interaction between student and mentor, which conditions the planning, implementation and achievement of the set goals of practical training within the work organization, depending on the circumstances, which are also influenced by the mentor's personality, status, knowledge and skills. Moreover, they mention a mentor's key skills during the process of practical training: professionalism, guidance, counselling, motivating, carrying out andragogical work, giving constructive feedback, communicating constructively, and establishing a proper attitude towards the trainee. In addition to these skills, the mentor should also possess good organizational and administrative skills. The mentor is to show the trainee his/her view on the work carried out by the institution and his/her practical experience in the selected field. In the process, it is important that the institution realizes this in its best interest and familiarizes the trainee with the work environment, harmonizes the trainee's interests, knowledge and skills in solving practical problems, and integrates the trainee into the staff (Ibid., p. 9).

The mentoring of doctoral students and young researchers is a topic that has been covered intensively by authors of professional literature over the last two decades. Žižak (2014, pp. 368-369) defines two approaches: an approach that highlights the challenges of mentoring faced by mentors and doctoral students, and an approach with an educational background published by authors in handbooks for doctoral students. One's scientific career usually begins when taking up doctoral studies, whereas completing the programme begins the process of building a new vocational identity. Young researchers are novices at higher education institutions; one of their main tasks is their doctoral studies, but they also have other tasks pertaining to scientific and/or higher education (Ibid.).

The mentor at the Archaeological Museum in Zagreb, as the head of the Education Department, used her many years of experience and professional work to positively influence the development of specific competences of the doctoral student undertaking the Erasmus+ practical training. She was able to pass on her experience gained over the years of working in museum education, during which time she designed, organized and implemented numerous programmes and projects, issued several educational publications, and authored many educational and interactive exhibitions, to the doctoral student who had decided to build on her knowledge and skills at the Archaeological Museum.

During the placement, the mentor showed the doctoral student how the work is organized, the educational programmes, and the actual implementation of educational activities at the museum through tours and implemented workshops. After each educational activity, the mentor encouraged a constructive discussion about the implemented educational activity. During the placement, she also acquainted the student with the organization and management of various target groups, and with the methods of cooperating with elementary and secondary schools, higher education institutions and travel agencies. During the placement, the mentor was very susceptible and open to new teaching approaches. She actively involved the doctoral student in activities that modernized the museum's educational programmes, enabled her to critically evaluate the museum's activities, and encouraged her to develop new useful ideas and approaches for the work of the Archaeological Museum.

During the placement, the mentor also familiarized the doctoral student with the history of the Education Department, and explained to her how the work is organized and how the museum's educational activities that were practised by her predecessor are implemented. In order to present all the activities of the Archaeological Museum, she introduced the student to other experts involved in educational activities within the scope of the open-air museum.

The Archaeological Museum in Zagreb is a public institution established by the City of Zagreb. As a public institution, it is able to participate in and apply to calls for applications that co-finance the implementation of educational programmes. The mentor acquainted the doctoral student with the process of applying to such calls for applications, with the writing of reports to a specific body (the founder, Ministry of Culture, the institution itself), and with the keeping of records of all educational activities implemented within the scope of the Education Department.

She also familiarized her with the work performed under various projects and with their management, especially with the European project “From Vocational Professions to Creative Industry, Artefact + Design = Prototype”.

## **Work Tasks and Involving the Student in Museum Work**

The purpose of the two-month training was to train and acquaint the doctoral student with the work tasks, the museum’s teaching approaches, and other educational activities at the Archaeological Museum. For this reason, the mentor began by introducing the work tasks and continued by involving the student in the various tasks she performs at the museum as a museum educator. Below is a presentation of the work tasks entrusted to the student in different areas.

### ***Educational Activities and Exhibition Tours***

The doctoral student was involved in observing, collaborating on and implementing various museum activities for elementary and secondary schools. She observed and accompanied tours of the Prehistory collection, the Antiquity collection, the Egyptian collection, the Mediaeval collection and the exhibition “Avars and Slavs” for kindergartens, elementary school (grades 5 and 6) and secondary school (year 1). She helped to implement workshops for kindergartens and elementary schools (e.g. “Writing and Reading Hieroglyphs”, “Egyptian Artists”, “Ushabti”, “Pintaderas”, “Making Jewellery and Bracelets”, etc.).

She also observed tours for pupils of the 4th, 5th and 6th grade of elementary school at the open-air museum in Andautonija in Ščitarjevo.

The student was able to discuss the positive and negative factors with the mentor or with the providers of individual tours or workshops, as well as the possibilities of improving their implementation for students and visitors of different ages.





**Figure 1.** Tour of the exhibition “Avars and Slavs”. Photo: Špela Bezjak, 2019.



**Figure 2.** The workshop “Ushabti”. Photo: Špela Bezjak, 2019.

### ***Development of Educational Programmes and Activities***

The doctoral student was given the opportunity to take part in preparing the material for existing expert-led tours and workshops, and in designing the educational programme, which was intended for the opening of the international exhibition “Avars and Slavs”. She collaborated on the educational publication *Avars and Slavs for Children and Young People*, which contains various didactic and interactive materials, and she helped to carry out workshops for children, young people and adults.

### ***Familiarization with the Work of Other Museum Departments***

In addition to the work at the Education Department, the doctoral student was also introduced to other employees that are directly involved in the educational work and activities at the museum. In order to learn about the teaching approaches at the Archaeological Park that operates under the Archaeological Museum, she met and interviewed two curators that are in charge of the museum activities at the Archaeological Park in Andautonija, and accompanied their educational activities for two days.



**Figure 3.** Weaving workshop in Andautonija. Photo: Špela Bezjak, 2019.

## ***Learning about the History of the Operation of the Education Department***

In order to understand the development, approaches and operation of the Education Department at the museum, the doctoral student reviewed the department's archives from 1994 to 2019. That way she learned on her own about the development of various teaching approaches within the museum's educational programmes and was able to compare them with contemporary ones. She also reviewed the professional works and materials from previous years and the existing replicas of archaeological remains kept by the museum.

## ***Involvement in Other Everyday Museum Work***

The doctoral student was given the opportunity to become involved in the everyday work at the Archaeological Museum as much as possible, and to give her opinions, ideas and suggestions. She suggested that more modern approaches be incorporated into the educational programmes, e.g. greater use of information technology, working with material sources, preparing questionnaires for evaluating the visitors' satisfaction. In order to motivate students, she prepared practical examples of integrating ICT into museum activities (use of web applications, e.g. Kahoot, Quizizz, QR codes, etc.). She prepared an interactive quiz which students can take using mobile applications. She also compiled an evaluation questionnaire that determines visitors' satisfaction. She adapted the workshop on Egyptian artists, otherwise intended for lower grades, for the 6th grade of elementary school by including cooperative learning tasks and tasks relating to archaeological or material sources.

## ***Research Work***

For the needs of her doctoral dissertation, the student reviewed the literature kept by the museum pertaining to museum education and teaching approaches in museums. She conducted an interview with her mentor, which she will use for research purposes.

## ***Advantages of Practical Training and Interinstitutional Cooperation***

The international institutional cooperation between the Archaeological Museum in Zagreb and the Faculty of Arts in Ljubljana has generated many benefits. Govekar-Okoliš et al. (2010, p. 17) are of the opinion that through such cooperation the work organization mostly gains fresh ideas, new perspectives, feedback on its work, and the development of employees; the intergenerational contact is preserved, and the relationship between the faculty and the work organization is improved. Such a

mentoring relationship benefits not only the work organization but both participants, i.e. mentors and trainees alike, as they gain new findings, perspectives, feedback on their work, etc. (Ibid., p. 10).

The cooperation between the above-mentioned institutions did not take place at the level of a one-way knowledge transfer; rather, it was based on interaction and the exchange of theoretical and practical experience. The student's theoretical pedagogical knowledge and the mentor's practical experience were complemented by constructive discussions, experimental approaches, and by implementing innovations into the museum's existing educational activities. In a reciprocal relationship, the student passed on some of her knowledge of teaching history and of contemporary teaching approaches to her mentor, while the mentor passed on some of her knowledge and experience in the field of museum work to the student. This is the basis of interinstitutional cooperation in which the student and mentor are representatives of two institutions that co-create, develop and complement each other.

During her practical training and while getting to know the Education Department at the museum, the doctoral student acquired specific knowledge and skills that enable her to fully comprehend the operation of the Education Department. The above-mentioned knowledge and skills will influence her research work, her career development, and her further collaboration with the Education Department of the Archaeological Museum in Zagreb. The student acquired the following knowledge and skills: pedagogical experience with different target or age groups (kindergarten, elementary school, secondary school); understanding the use and adaptation of the material and the educational tours for different age groups; cooperative work with other employees at the institution; getting to know the process of leading and managing various museum projects; using and implementing different web applications and materials, and other materials for carrying out museum activities; learning about and evaluating different teaching approaches at the Archaeological Museum. This way, the doctoral student familiarized herself with the museum's programmes for students of different ages at Croatian elementary and secondary schools, and with their attitude towards archaeological heritage.

The mentor used the knowledge gained by the doctoral student during her studies at the faculty (the knowledge of History and Andragogy) to modernize the museum's educational programmes, activities and exhibitions. The student enhanced, above all, her interest in research, her practice orientation and creativity.

## Conclusion

The purpose of the practical training and consequently of the cooperation between both institutions was to familiarize the student with the educational activities at the Archaeological Museum and with the work tasks of the museum educator. It has turned out that the interinstitutional cooperation or collaboration between the mentor and student within the scope of an Erasmus+ Traineeship was a positive experience for both.

Despite the fact that the main purpose of the student's international practical training was to gain knowledge, primarily from the mentor at the institution, in this specific case the relationship between the student and mentor was reciprocal and complementary. The exchange of experience and knowledge was mutual, with the mentor presenting her experience and the student presenting her theoretical knowledge, which the mentor as a museum educator was then able to incorporate into her everyday educational work. During the two months of talking and working together, both of them built on their knowledge of museum work and agreed to collaborate again in the future.

In conclusion, both institutions should regard the future professional collaboration between the mentor and student as added value and, above all, as a good practice example of successful international interinstitutional cooperation, which is extremely important for the quality development of institutions in this day and age.

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## EDUCATIONAL PROGRAMMES WITH ARCHAEOLOGICAL CONTENTS IN SLOVENIAN MUSEUMS

### Abstract

Educational programmes with archaeological contents in Slovenian museums enable learners to come to know the oldest historical periods and archaeology as a science in an interactive and interesting way. The paper defines educational programmes with archaeological contents in Slovenian museums and the learning approaches to archaeological sources which are most commonly used in the aforementioned educational programmes. In Slovenia, educational programmes with archaeological contents pertaining to the period of prehistory are predominant; the fewest programmes educate learners about archaeology as a science or about the archaeologist's profession. The predominant learning approaches in educational programmes with archaeological contents are experiential learning, multi-perspective learning, educational visits, creative expression, multisensory learning and demonstration of sources. By presenting educational programmes with archaeological contents, the paper aims to point out the different possibilities of educational activities in Slovenian museums for elementary and secondary school students.

**KEY WORDS:** EDUCATIONAL PROGRAMMES, LEARNING APPROACHES, MUSEUM, ARCHAEOLOGICAL CONTENTS, HISTORY, SLOVENIA.

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# EDUCATIONAL PROGRAMMES WITH ARCHAEOLOGICAL CONTENTS IN SLOVENIAN MUSEUMS

## Introduction

In Slovenia, archaeological contents are often incorporated into the educational programmes of various Slovenian museums. The mission of Slovenian museums is laid down by the Statute of the International Council of Museums (ICOM) (International Council of Museums, 2005, p. 9) and the Cultural Heritage Protection Act, which defines a Slovenian museum as “*a permanent organization in the service of society and its development, which is open to the public and which collects, preserves, documents, studies, interprets, manages and exhibits heritage, and shares information about it for the purpose of developing an awareness of heritage, spreading knowledge of its values, and enabling the enjoyment of heritage*” (2016, Article 3). In Slovenia, museums are divided into national, regional, intermunicipal, city and special museums (Trškan, 2007, p. 63). Slovenian museums offer various educational programmes relating to historical periods ranging from prehistory to contemporary history in Slovenian lands. The total number of museums offering educational programmes in Slovenia is sixty-two (Slovenian Museum Association, 2014). The contents of most educational programmes are in line with the objectives of the curricula for elementary and secondary schools. Museums in Slovenia offer expert-led tours, visits, walks, museum workshops and activities, and much more (Ibid.).

The purpose of the paper is to give a general presentation of the educational role of Slovenian museums, to highlight their educational programmes with archaeological contents, and to define the key learning approaches to archaeological sources employed in museum educational programmes. Twenty Slovenian museums offer programmes with archaeological contents. Based on their educational activities, the paper classifies educational programmes with regard to archaeological contents (archaeology) or the historical period (prehistory, Antiquity, the Middle Ages) and the specific learning approach.

## Educational Role of Slovenian Museums

Over the last few decades, the roles of museums have evolved. Museums have expanded in a variety of ways and gained increasing popularity, not only as places for conservation and restoration of artefacts and objects but, more importantly, to fulfil an educational role as reputable public learning institutions (Isa & Zakaria, 2007, p. 94).



The key role of museums is acquainting learners with the functions of a museum and the main purpose of the operation of museums as institutions; acquainting them with various historical sources; equipping them with history-related skills, and teaching them to use this new knowledge in regular History lessons and in other subjects (Trškan, 2007, p. 64). By visiting a museum, schools can fulfil different learning objectives. The museum provides them with “*an additional source for History lessons; provides evidence of change and continuity; provides a picturesque portrayal of people’s way of life; helps learners to put themselves in the shoes of people from the past; promotes individual or group learning; and provides a source for projects and research conducted by learners*” (Trškan, 2016, p. 268).

The purpose of learners working in a museum is that the students “*learn in practice what they were taught in school; get used to independent, creative thinking and working independently; can analyse and test their knowledge by themselves; can get used to working in pairs and in groups; take into account the findings and opinions of their classmates; learn about cultural heritage; think about people’s past and their way of life; broaden their knowledge and interest in past historical events; pose various questions and get clear answers; get used to order and discipline*” (Trampuš, 1998, p. 43 cited in Trškan, 2007, p. 70). Museum educational activities help to increase the learners’ curiosity and interest in past events, and enable them to develop writing, communication and other vital skills (Ibid.).

The educational role undertaken by museums changed the manner in which information was delivered to the school audience. In the past, programmes that required pupils to sit and listen to the information presented, while they passed around objects and specimens, were considered “educational” (Isa, 2017, pp. 26-27). Such programs have long since disappeared. Nowadays, programmes are very suitable for schools if they fulfil curriculum demands (Ibid.). That way, when visiting a museum, learners gain an in-depth understanding of historical topics and periods discussed during regular lessons, which also enables them to understand European and world history in a broader context. Thus, the museum is guaranteed visitors, while the teachers are able to fulfil the objectives required in the subject’s curriculum. In Slovenia, too, the educational role of museums is laid down by the objectives and guidelines of curricula which promote visits to museums. The curriculum of the subject Social Studies in the 5th grade (aged 10 to 11) promotes visits and highlights the educational role of museums in fulfilling the learning objectives under the thematic unit “People in Space and Time” (Budnar et al., 2011, pp. 8-10). One learning objective proposed by the curriculum is a visit to a regional museum, where pupils get the chance to learn about the essential historical periods, events from Slovenia’s past, and the chance to use and learn with various sources (Ibid., p. 10). The curriculum’s didactic recommendations also encourage teachers to use various didactic approaches, which include visiting a museum (Ibid., p. 18). In the subject of Social Studies, pupils for the first time systematically encounter the concept of the past and the concept of the museum as an institution which houses historical sources.

The role of a museum and museum work is also mentioned as a potential secondary educational activity in the History curriculum for elementary school (aged from 11 to 15) and in the History curriculum for general secondary school (aged from 15 to 19). According to the History curricula for elementary school, cooperation with museums and other institutions relating to history and cultural heritage is of exceptional importance for contemporary History lessons, and represents one of the curriculum's key general objectives (Kunaver et al., 2011, p. 6). By doing so, pupils *“develop the ability to search for and gather new information, and develop a respectful and responsible attitude towards the preservation and protection of cultural heritage”* (Ibid., p. 41). The didactic recommendations of the curriculum for general secondary schools point out museum work, especially within the context of broader historical topics, as a form of alternative lessons, which also include various interdisciplinary projects, field trips, fieldwork, etc. (Kunaver et al., 2008, p. 57). Museum work is understood as *“an independent or integral part of fieldwork, field trips or other forms of out-of-school work”* (Trškan, 2007, p. 62). The curriculum for general secondary schools also highlights the great importance of students learning about the role of museums (Kunaver et al., 2008, p. 13) and developing a responsible and positive attitude towards preserved cultural heritage, particularly from the period of prehistory and Antiquity in various archaeological parks, museum collections, etc. (Ibid., p. 15). Zgonik (1974, p. 215) similarly defines the role of a museum, stating that *“viewing historical sources and monuments in nature or in a museum enables not only a more accurate visual perception of artefacts or historical phenomena and periods, but also evokes respect towards the preserved witnesses to the past in young people”*.

The educational role of museums enables archaeology and archaeological contents to pass on knowledge in an interactive way, which is accessible to the broadest possible group of learners and which enables effective learning for learners with diverse learning needs. This is affected by the integration of theoretical learning strategies and principles into museums' educational activities. There are various learning theories that have been developed and that can be used in learning archaeology in museums. Many of these are often grouped under the label of constructivism, *“to signal the idea that learning is a process whereby pupils construct their own understandings with the help and support of the teacher rather than having knowledge imparted to them by instruction”* (Henson, 2017, p. 47). The paper will present only a few theoretical models of learning, which are very important for understanding the educational role of museums and the learning of archaeological content in museums.

According to Kolb's model of learning, learning with archaeological sources in a museum has much to offer. Kolb's ideas are a thinking-through of the learning that takes place through experience, the so-called experiential learning. Honey and Mumford developed Kolb's model further and use the following description of learning styles: activist (doing and feeling), reflector (feeling and watching), theorist (watching and thinking) and pragmatist (doing and thinking). Activist learners

are represented by experimental archaeology and reenactment. Reflectors are perhaps to be found in heritage interpretation, where the details of the past and of its remains are integrated into bigger narratives. Theorists predominate in academia or researching, where high-level concepts are used to develop the analysis of the details. The fieldworker and finds analyst are good examples of the pragmatist (Henson, 2017, p. 47). According to Bloom's taxonomy, archaeology provides educators with the opportunity to develop many abilities in a museum. There are three main objectives of learning: cognitive (thinking), affective (feeling) and psychomotor (doing). For example: the analysis of remains involves high-order cognitive skills; to engage with the heritage of past peoples is to make a strong affective connection across the ages from person to person; and the practices of archaeology are highly physical and technical, so they result in well-developed psychomotor skills (Ibid., p. 46). Archaeology can also offer activities suitable for all intelligences according to Gardner's theory of learning. For example: activities in linguistic intelligences can be writing site reports and interpretation panels; activities in logical-mathematical intelligences can be puzzling out the stratigraphy of a site, undertaking analytical tasks such as lithic refitting; activities in spatial intelligences are, for example, creating site plans, landscape exploration, undertaking field surveys; an activity in musical intelligences is, for example, using sound within a heritage display; activities in bodily-kinaesthetic intelligences are, for example, the physical act of excavation, experiential archaeology, developing interactive displays; activities in naturalist intelligences are, for example, interpreting the patterns in data, classifying artefacts, regional site analysis; activities in interpersonal intelligences are, for example, team working, bringing to life the people behind the site; and activities in intrapersonal intelligences are, for example, individual research and providing space for reflection on a heritage site (Ibid., p. 48).

## **Educational Programmes with Archaeological Contents in Slovenia**

Owing to its practice orientation and interactivity, archaeology as a science enables museums to prepare a diverse and interesting offer of educational programmes. Educational archaeology encourages the use of archaeology as a tool for teaching and learning about the past and involves the production of educational materials and public programmes (Cravis, 2014, p. 2). Educational archaeology programmes emphasize "doing" or "learning about" archaeology. It is important for archaeological educators in museums to switch their emphasis from teaching about archaeology to teaching with archaeology by using the discipline to teach key social science, math, and science skills within existing educational frameworks in ways that are relevant to our daily lives (Ibid.).

In Slovenia, sixty-two museums offer various educational programmes. The programmes of all museums were reviewed and it has been established that twenty museums in Slovenia offer one hundred and fifty-nine different educational programmes with archaeological contents. These educational programmes relate to contents from the period of prehistory, Antiquity and the Middle Ages, and to contents in which learners learn about archaeology as a science and the archaeologist's profession. After reviewing the educational programmes with archaeological contents in Slovenian museums that are publicly accessible on their websites, it has been determined that the National Museum of Slovenia (17.61%) has the largest and most comprehensive offer; it is followed by the Museum of Dolenjska Novo Mesto (13.84%), the Koper Regional Museum (8.81%), the Koroška Regional Museum (8.18%), and the Museum and Galleries of Ljubljana (7.55%) (Table 1). Other museums have a smaller number of educational programmes with archaeological contents.

| Slovenian museums                        | Number of educational programmes | Frequency/Percent (%) |
|--|----------------------------------|-----------------------|
| Bela Krajina Museum Metlika              | 5                                | 3.14                  |
| Museum of Dolenjska Novo Mesto           | 22                               | 13.84                 |
| Gorenjska Museum                         | 2                                | 1.26                  |
| Regional Museum Goriški muzej            | 8                                | 5.03                  |
| Rajhenburg Castle                        | 5                                | 3.14                  |
| Koroška Regional Museum                  | 13                               | 8.18                  |
| Ljubljana Castle                         | 6                                | 3.77                  |
| Škofja Loka Museum                       | 4                                | 2.52                  |
| Museum and Galleries of Ljubljana        | 12                               | 7.55                  |
| Museum of Christianity in Slovenia       | 4                                | 2.52                  |
| National Museum of Slovenia              | 28                               | 17.61                 |
| Notranjska Museum Postojna               | 2                                | 1.26                  |
| Celje Regional Museum                    | 5                                | 3.14                  |
| Koper Regional Museum                    | 14                               | 8.81                  |
| Maribor Regional Museum                  | 4                                | 2.52                  |
| Ptuj Ormož Regional Museum               | 5                                | 3.14                  |
| Pomurje Museum Murska Sobota             | 6                                | 3.77                  |
| Posavje Museum Brežice                   | 9                                | 5.66                  |
| Slovenian School Museum                  | 4                                | 2.52                  |
| Cultural Institute of Slovenska Bistrica | 1                                | 0.63                  |
| <b>Total</b>                             | <b>159</b>                       | <b>100.00</b>         |

**Table 1.** Number of educational programmes with archaeological contents in Slovenian museums.

Archaeological contents can encompass different historical periods or topics, which is why the aim was to determine which archaeological contents were the most common in the educational programmes of Slovenian museums and which the least common. An individual educational programme could contain several archaeological contents or present several historical periods. Based on all the reviewed educational programmes with archaeological contents, it has been established that Slovenian museums offer the greatest number of programmes pertaining to prehistory (31.94%), followed by programmes pertaining to the Middle Ages (26.70%), Antiquity (25.65%) and a unit which was dubbed archaeology (15.71%), which encompassed the educational programmes in which learners come to know archaeology as a science and the archaeologist's profession (Table 2).

| Archaeological contents (according to the History curriculum)              | Archaeological contents in educational programmes (one programme can encompass multiple periods) | Frequency/Percent (%) |
|--|--|-----------------------|
| Archaeology (science, learning about the archaeologist's profession, etc.) | 30   | 15.71                 |
| Prehistory   | 61   | 31.94                 |
| Antiquity  | 49   | 25.65                 |
| The Middle Ages  | 51   | 26.70                 |
| Total  | 191  | 100.00                |

**Table 2.** Proportion of individual archaeological contents in educational programmes (an individual educational programme can encompass multiple archaeological contents).

The educational programmes with archaeological contents are intended for different target groups, especially elementary and secondary school students, which is also promoted by the curricula guidelines. In light of that, the paper aimed to determine the proportion of individual educational programmes intended for different age groups, ranging from preschool children to secondary school students (Table 3). An individual educational programme with archaeological contents can be suitable for several age groups. It has been established that the highest proportion of educational programmes with archaeological contents is intended for pupils of the 3rd triennium of elementary school (aged 12 to 15) (31.01%). At that age, pupils encounter the historical periods of prehistory, Antiquity and the Middle Ages for the first time. A slightly smaller proportion of educational programmes is intended for the 2nd triennium of elementary school (pupils aged 9 to 12) (28.80%). At that age, pupils encounter the concept of cultural heritage, archaeology and the notion of historical sources for the first time. This is followed by the proportion of educational programmes intended for the 1st triennium (pupils aged 6 to 9) (17.09%); an even smaller proportion is intended for secondary school students (aged 15 to 19)

(13.92%); the smallest number of educational programmes with archaeological contents is intended for preschool children (under 6) (9.18%).

| Triennium                                 | Total number of educational programmes in all museums (an individual educational programme can be suitable for several age brackets) | Frequency/Percent (%) |
|---|--|-----------------------|
| preschool children (under 6)              | 29   | 9.18                  |
| 1st triennium (pupils aged 6 to 9)        | 54   | 17.09                 |
| 2nd triennium (pupils aged 9 to 12)       | 91   | 28.80                 |
| 3rd triennium (pupils aged 12 to 15)      | 98   | 31.01                 |
| Secondary school students (aged 15 to 19) | 44   | 13.92                 |
| Total                                     | 316  | 100.00                |

**Table 3.** Proportion of educational programmes with archaeological contents by age bracket.

## Examples of Educational Programmes with Archaeological Contents in Select Slovenian Museums

Below are a few examples of the contents or topics of educational programmes with archaeological contents of select Slovenian museums, which are publicly accessible on the website of each museum.

The educational programmes of the **National Museum of Slovenia** offer interactive educational tours of exhibitions, visits to the archaeological park Ad Pirum and workshops. Elementary and secondary school students learn about the most important material sources in the archaeology collection from the period of the Early Stone Age, e.g. the Neanderthal flute from the Divje babe site; they learn about prehistoric tools and other materials from the Stone Age. Through the educational programmes, students gain insight into the differences between the Early and Late Stone Age and find out how the innovations of the Late Stone Age influenced people's lives, their chances of survival and their life span. Diverse educational programmes enable students to come to know the lifestyle of pile dwellers, especially the building of settlements, their watercraft called *deblaki*, their way of trading, the discoveries of copper deposits, and weaving, which was one of the most important handicrafts of that time. The educational programmes that cover the period of Antiquity enable students to learn about the Roman way of life, their cuisine and clothing culture; get to know the weaponry of the Roman army, their battle tactics, and the importance of Slovenian territory in the Roman era. The educational programmes that cover the period of the Middle Ages enable students to learn about the circumstances and the new image of Europe in the centuries following the fall of the Roman Empire. Students learn about the period of the migration of peoples in our

territory and come to know the Slavs, Lombards and Avars. Due to the migration of Slavs to our territory the educational programmes greatly focus on acquainting the students with the daily lives, religion and art of the Slavs. Educational programmes also enable them to learn about the work of museum experts, i.e. archaeologists, curators, restorers and conservators (National Museum of Slovenia, 2020a, 2020b).

The educational programmes of the **Museum of Dolenjska Novo mesto** enable students to view the finds displayed in the permanent archaeology collection and follow life in the Dolenjska region from the Stone Age, Bronze Age, Early and Late Iron Age to the end of the Roman occupation of our lands. The educational programmes highlight the importance of Novo mesto and Dolenjska at the time of the Early Iron Age or Hallstatt Age, at which time it was one of the wealthiest centres of Southeastern Europe. Novo mesto was inhabited by Iron Age or Hallstatt princes, as evidenced by many unique finds: magnificent combat gear, bronze helmets; a rare preserved bronze armour; skilfully designed bronze vessels or situlae; bronze and amber jewellery, which cannot be found elsewhere in Europe. That is why it was called “the prospering Hallstatt of the Dolenjska region”. Students also learn about three important archaeological finds: on the Marof hillock, where a prehistoric settlement from the 1st millennium B.C. is located; on the Kapiteljska njiva field, which is one of the largest prehistoric Iron Age burial grounds in Slovenia; and on the Mestne njive fields, the site of a prehistoric Bronze Age burial ground (Museum of Dolenjska Novo Mesto, 2014).

The educational programmes of the **Koroška Regional Museum** offer students educational tours of exhibitions, museum lessons and workshops. At the museum, students learn about the mediaeval walls of the town of Slovenj Gradec. They find out where the town’s original settlement was located; who founded the new settlement; when Slovenj Gradec became a town; how the townspeople lived and what they did for a living. The educational programmes enable students to learn about the importance of the 9th-century early Christian church with the corresponding old Slavic and mediaeval/modern graves from the time of the Christianization of the Slovenians of the Koroška region. The educational programmes familiarize students with archaeological work in the field and in the museum, and with archaeological remains in the vicinity (Koroška Regional Museum, 2020a). Students also learn about life and wall painting in prehistoric times; come to know the characteristics of the Roman clothing and culinary culture, Roman schooling and writing, Roman tombstones, and interesting facts about the creation of the first Roman coins (Koroška Regional Museum, 2020b).

The educational programmes of the **Museum and Galleries of Ljubljana** offer students interactive educational tours of exhibitions, visits to the archaeological park Emona, museum lessons with worksheets and museum workshops. At the museum, students learn about the different historical periods of the capital of Slovenia,

Ljubljana, where they come to know the pile dwellers' village, the Roman town of Emona (Ljubljana), and Ljubljana in the Middle Ages. Within the context of the permanent exhibition students come to know life in the Ljubljana Marshes in pre-historic times and one of the most important finds from the age of pile dwellers (also globally speaking) – a wooden wheel with an axle, 5200 years old. The educational programmes enable students to learn about the period of Antiquity and the prospering Roman town of Emona, which had a strategically important location at the crossroads of major traffic routes. Students also learn about the period of the development of mediaeval Ljubljana (called Laibach) after the fall of the Roman Empire, and the settlement of Slavs on the outskirts of the Ljubljana Basin. The museum also organizes educational programmes where students learn about archaeology as a science and the archaeologist's profession (Vošnjak et al., 2019).

## **Learning Approaches to Archaeological Sources in Slovenian Museums**

Museums employ diverse learning approaches, which combine various learning strategies that partly depend on the purpose, circumstances and difficulty of the learning contents. Through their learning approaches, museum activities often promote research, study, observation, written and oral communication, putting oneself in someone else's shoes, cooperation skills through cooperative and group learning, deduction or synthesizing and solving problems, not to mention enthusiasm, enjoyment, pleasure, respect, values, curiosity, confidence, awareness, care and protection (Trškan, 2007, p. 69). By participating in different programmes, pupils are obliged to use not only their mind but their body as well. They have the opportunity to discover new things, learn to cooperate and communicate with other people through museum educational programmes because they are organized in a way that promotes team work and mutual understanding (Papadimitriou, 2015, p. 21).

Educational programmes with archaeological contents offer diverse learning approaches, which enable learners to gain an authentic museum experience, strengthen their positive attitude towards cultural heritage, deepen their understanding of the contents, and enhance their skills through active participation.

In Slovenian museums educational programmes with archaeological contents may consist of a combination of different learning approaches. Some educational programmes include educational tours of and visits to exhibitions, which are complemented by workshops; other museums consider independent workshops to be an educational programme; while the rest have added the implementation of museum lessons. There is no uniform professional concept or classification of educational programmes in Slovenia, which is why each educational programme has been broken down into learning approaches in order to obtain comprehensive results. Some educational programmes contain several learning approaches, which is why the



aim was to determine which learning approaches occupy the biggest and which the smallest proportion among educational programmes with archaeological contents.

After reviewing educational programmes with archaeological contents in Slovenian museums it has been established that the learning approaches of explanation and discussion are present in all educational programmes with archaeological contents. Other most common approaches are experiential learning (48.43%), multi-perspective learning (46.54%), educational visits (42.14%), creative expression (42.14%), demonstration of sources (38.99%) and multisensory learning (34.59%) (Table 4). The learning approaches that are used the least in educational programmes with archaeological contents are displaying sources in 3D (0.63%), project learning (0.63%), learning through creative movements (0.63%), practical training by working in a museum (for secondary school students) (0.63%). A smaller proportion of educational programmes includes measuring (1.89%), historical educational walks (1.26%), learning with visual material (1.26%), learning with cartographic material (maps) (1.26%) and learning with puppets (1.26%).

| Learning approaches   | Number of learning approaches in educational programmes | Proportion of learning approaches in educational programmes (Frequency/Percent %) |
|---|---|---|
| Explanation   | 159   | 100.00  |
| Discussion  | 159   | 100.00  |
| Demonstration of sources  | 62  | 38.99   |
| Displaying sources in 3D  | 1   | 0.63  |
| Independent work (individual learning)  | 7   | 4.40  |
| Cooperative learning (cooperative group work)   | 8   | 5.03  |
| Multisensory learning   | 55  | 34.59   |
| Experiential learning (role-playing, simulation)  | 77  | 48.43   |
| Project learning  | 1   | 0.63  |
| Learning with ICT (use of mobile phone, video contents)   | 12  | 7.55  |
| Enquiry-Based Learning  | 16  | 10.06   |
| Problem solving   | 6   | 3.77  |
| Learners' critical thinking   | 24  | 15.09   |
| Creative expression   | 67  | 42.14   |
| Multi-perspective learning  | 74  | 46.54   |
| Modelling (making replicas, models, etc.)   | 6   | 3.77  |
| Learning with worksheets  | 16  | 10.06   |
| Learning through play (quiz, crossword puzzle, pantomime, board games, mediaeval and Roman games, etc.) | 14  | 8.81  |

| Learning approaches   | Number of learning approaches in educational programmes | Proportion of learning approaches in educational programmes (Frequency/Percent %) |
|---|---|---|
| Measuring   | 3   | 1.89  |
| Educational visits (in the museum, outside the museum)                    | 67  | 42.14   |
| Learning through stories  | 9   | 5.66  |
| Learning with puppets   | 2   | 1.26  |
| Learning through creative movements                                       | 1   | 0.63  |
| Learning with cartographic material (maps)                                | 2   | 1.26  |
| Learning with a timeline  | 5   | 3.14  |
| Educational walks   | 2   | 1.26  |
| Learning with visual material/illustrations                               | 2   | 1.26  |
| Practical training by working in a museum (for secondary school students) | 1   | 0.63  |
| Demonstration of work (of an archaeologist, conservator, etc.)            | 29  | 18.24   |

**Table 4.** Demonstration of the proportion of learning approaches in educational programmes with archaeological contents.

## Examples of Learning Approaches in Educational Programmes of Slovenian Museums

**Experiential learning in a museum** is based on the learner's active involvement in the experience, while simultaneously enabling the learner to internalize the experience, which each learner does in a unique way. Experiential learning is a social process, as the entire learning process depends on the learner's experience (Breznik, 2019, p. 18). Examples of experiential learning with archaeological sources in Slovenian museums are workshops at which learners take on the role of archaeologist (Regional Museum Goriški muzej, Museum and Galleries of Ljubljana, Koper Regional Museum, National Museum of Slovenia), of restorer-conservator (Bela Krajina Museum Metlika, Museum of Dolenjska Novo mesto, Regional Museum Goriški muzej, Koroška Regional Museum), of stonemason (Koroška Regional Museum), Roman soldier (National Museum of Slovenia), Roman pupil (Slovenian School Museum), mediaeval scribe, etc. (Museum of Christianity in Slovenia). While taking on the role of Romans, learners can try on Roman clothes, eat while reclining on a triclinium, sit on a Roman public latrine, and try performing in a play with masks (Vošnjak et al., 2019, p. 30).

Educational programmes with archaeological sources often make use of **multi-perspective learning**. Archaeological education offers a cross-curricular integration approach as archaeology effectively crosses the divide between the arts, humanities and sciences (Cole, 2014, p. 98). The archaeological contents of educational activities most often relate to the field of art, for instance creating in various artistic techniques – monotype, screen printing (Museum of Dolenjska Novo mesto), in the coiling or pinching technique (Koroška Regional Museum); to the field of technology, e.g. the working of metal or other materials such as stone, iron, bronze (Museum of Dolenjska Novo mesto, National Museum of Slovenia), measuring archaeological finds in a sandbox (Regional Museum Goriški muzej); to the field of geography, e.g. learning about and working with fossils (Regional Museum Goriški muzej) or using maps and geolocation (Museum and Galleries of Ljubljana, National Museum of Slovenia); and to the field of language, for instance learning about different scripts, e.g. Roman (National Museum of Slovenia Slovenian School Museum), Sumerian (Slovenian School Museum) and Glagolitic (Koper Regional Museum).

The review of educational programmes with archaeological contents has shown that another common learning approach is implementing **educational visits** in the museum or outside of it. One example is visiting archaeological parks, where learners can take a look at a prehistoric settlement (National Museum of Slovenia), a Roman settlement (Museum and Galleries of Ljubljana Cultural Institute of Slovenska Bistrica) or an ongoing archaeological excavation (Museum of Dolenjska Novo Mesto). Educational visits are offered by the archaeological park Ad Pirum (National Museum of Slovenia) and the archaeological park Emona (Museum and Galleries of Ljubljana). Educational visits also take place in old town centres (Ptuj Ormož Regional Museum, Museum and Galleries of Ljubljana); along mediaeval town walls (Regional Museum Goriški muzej, Koroška Regional Museum); at a Late Roman fortress (National Museum of Slovenia); at a Roman lapidarium in Ptuj (Ptuj Ormož Regional Museum) and in Ljubljana (National Museum of Slovenia).

Another commonly used learning approach in educational programmes with archaeological contents in Slovenian museums is **creative learning**, where learners acquire knowledge through creative and practical work. One example of creative learning in educational programmes with archaeological contents is making jewellery, e.g. a ring and brooch following an Iron Age example (Posavje Museum Brežice); necklaces, earrings and fibulae following a Roman example (Koroška Regional Museum); making a replica of a prehistoric dwelling (Museum and Galleries of Ljubljana, National Museum of Slovenia) or of a mediaeval castle using cardboard (Bela Krajina Museum Metlika) or wooden building blocks (Rajhenburg Castle); assembling and gluing ceramic pieces (Koroška Regional Museum, National Museum of Slovenia, Regional Museum Goriški muzej), possibly also adding missing pieces and colour toning them (Regional Museum Goriški muzej); creating a situla painting (Museum of Dolenjska Novo Mesto); making simple tools

and weapons, such as a hoe, stone axe (Museum of Dolenjska Novo Mesto) or a knightly sword (National Museum of Slovenia); sewing clothes from animal hides (Museum of Dolenjska Novo Mesto); weaving on smaller wooden looms (Museum and Galleries of Ljubljana, National Museum of Slovenia, Pomurje Museum Murska Sobota); making a coin pouch (Rajhenburg Castle); chiselling Roman letters into Siporex (Koroška Regional Museum); making mediaeval games from natural materials (Koroška Regional Museum); making clay vessels (Museum of Dolenjska Novo Mesto, Regional Museum Goriški muzej) and seals or oil lamps (Koroška Regional Museum, Museum and Galleries of Ljubljana); making a mosaic (Koper Regional Museum, Posavje Museum Brežice); creating initials following the example of mediaeval scribes (Museum of Christianity in Slovenia) and making a Neanderthal flute (National Museum of Slovenia).

**Multisensory learning** has been observed in the learning approaches of Slovenian educational programmes with archaeological contents that enable learners to learn using different senses, i.e. sight, sound, smell, taste and touch. In Slovenian museums this approach has been observed in educational activities in which learners can physically touch replicas of archaeological sources, e.g. while carrying out the practical research work of an archaeologist (Regional Museum Goriški muzej, Museum and Galleries of Ljubljana, Koper Regional Museum, National Museum of Slovenia); when touching material sources at an exhibition or at workshops (Museum and Galleries of Ljubljana, National Museum of Slovenia); when tasting bread baked following a Roman example (Koroška Regional Museum); when tasting mediaeval biscuits (Museum and Galleries of Ljubljana) and when smelling Roman and mediaeval spices (National Museum of Slovenia, Museum and Galleries of Ljubljana). Multisensory learning is also present when listening to mediaeval music (National Museum of Slovenia) or when playing a replica of a Neanderthal flute (National Museum of Slovenia).

## Conclusion

The paper aimed to show the educational role of Slovenian museums, the contents of educational programmes with archaeological contents, and which learning approaches employed in these educational programmes were most often used in Slovenian museums. It has been established that the educational role of Slovenian museums is defined by the formal education system. A museum's educational role is connected to the policies of the curricula of individual subjects, particularly of Social Studies and History in elementary school and of History in general secondary schools.

After reviewing the educational programmes of all museums, it has been established that twenty museums in Slovenia offer learners educational programmes with archaeological contents. Museums with the highest number and most comprehensive offer of educational programmes with archaeological contents are the National Museum of Slovenia, the Museum of Dolenjska Novo Mesto, the Koper Regional Museum, the Koroška Regional Museum, and the Museum and Galleries of Ljubljana. The contents of educational programmes mostly cover the period of prehistory, followed by programmes pertaining to the Middle Ages and Antiquity; the fewest educational programmes familiarize learners with the archaeologist's profession. Educational programmes with archaeological contents employ diverse learning approaches. After reviewing educational programmes with archaeological contents, it has been established that the learning approaches of explanation and discussion are present in all educational programmes with archaeological contents. Besides these two, other most often used learning approaches are experiential learning, multi-perspective learning, educational visits, creative expression, multisensory learning and demonstration of sources.

Despite the fact that Slovenian educational programmes offer many opportunities to learn about archaeological contents, museums as modern educational institutions should introduce ICT approaches more often in light of the rapid technological development and universal digitization. The education departments of museums should follow contemporary educational guidelines and be aware of the impact of progressive learning approaches on the motivation and positive attitude of learners towards museum work and heritage. The paper presents the educational programmes and learning approaches of Slovenian museums alone. In order to incorporate the progressive ideas and outlooks of foreign museums into Slovenian museums, it would be a good idea to conduct similar research into the practices of other European museums. That would enable us to gain insight into their educational programmes with archaeological contents, learn about their innovations, and identify possibilities for further improvements.

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**PART 5**

**AN EXAMPLE OF THE COMMUNITY STRUGGLE  
FOR THE PROTECTION OF ARCHAEOLOGICAL  
AND CULTURAL HERITAGE**

**COMMUNITY HERITAGE: CASE OF THE ROȘIA MONTANĂ  
MINING LANDSCAPE IN ROMANIA**  
(Sergiu Musteață, Elena Cozma)



## COMMUNITY HERITAGE: CASE OF THE ROȘIA MONTANĂ MINING LANDSCAPE IN ROMANIA

### Abstract

In this paper, the authors discuss the case of Roșia Montană in Romania, which represents a special case regarding the community's struggle for the protection of the cultural heritage, in general, and of the archaeological one, in particular. Roșia Montană is an exceptional site worldwide, both in terms of gold resources that still exist here and mining galleries from the Roman period. The interest of foreign investors was hit by the reaction of the local community that opposes the mining project. The resistance of the local community has turned into a national movement that opts for the protection of the natural and cultural heritage of Roșia Montană. Thus, the Movement *Salvați Roșia Montană* became the largest social movement in Romania after the 1989 revolution. The community spirit and the attitude of the Romanian citizens towards the mining project from Roșia Montană can be considered an example of the community heritage, which could be interesting for the international audience and history education. The paper describes why "Roșia Montană mining landscape" should be inscribed on the UNESCO World Heritage List.

**KEY WORDS:** CULTURAL HERITAGE, MINING LANDSCAPE, MINING ARCHAEOLOGY, COMMUNITY HERITAGE, ROȘIA MONTANĂ, ROMANIA, UNESCO WORLD HERITAGE LIST.

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## COMMUNITY HERITAGE: CASE OF THE ROȘIA MONTANĂ MINING LANDSCAPE IN ROMANIA

### Introduction

The paper is focused on the analysis of the movements around the Roșia Montană mining landscape which is a part of the research made for the the Project “Preservation by the development of sustainable strategies for better protection of the UNESCO World Heritage Sites from Romania” – <http://archaeoheritage.ro/>, supported by the National Research Council (CNCS) – Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), PN-III-P4-ID-PCE-2016-0737 and implemented by the Institute of Archaeology of the Romanian Academy, Iași Branch, Romania.

The first part of this paper is about cultural heritage from Roșia Montană and its importance for the World Heritage. The second part is the analysis of the debates around the initiative to explore gold resources and community involvement. The third part is a short presentation of the request to the nomination of Roșia Montană into the UNESCO World Heritage List. The paper tries to explain the community struggle for the protection of the Roșia Montana, which has been the most active gold mining centre of the Apuseni Mountains (the western side of Romania’s Carpathians), from the earliest works in the Bronze Age to Antiquity, through the Middle Ages, all the way into modern times and up to the recent past.

### Roșia Montană

Roșia Montană, a commune which included 16 villages from the Alba county, Romania (Photo 1), is placed in a Mountain landscape known as the Golden Quadrangle (Auriferous Quadrilateral) very rich in minerals (Mârza, 2012, p. 13), which has been for a very long period the most active gold mining centre of the Apuseni Mountains (the western side of Romania’s Carpathians). The site was explored from the Bronze Age to Antiquity, through the Middle Ages, Modern times and up to the recent past. Local families or small group operated mining ended in 1948 with nationalization by the communist regime (Photo 2). The subsequent industrial state mining ended in 2006 as an unprofitable activity. Still today, the Roșia Montană gold deposit is one of the largest deposits of this type in Romania and Europe. The mining perimeter, with an area of 2388,0 hectares, is located about 85,0 km from the city of Alba Iulia, which contains at least 69 epithermal or “porphyry copper and gold” deposits (Marincea, 2012, p. 73).



**Photo 1.** Panoramic view of Roșia Montană area. Photo: Sergiu Musteață, 2018.



**Photo 2.** Village Roșia Montană and traces of the mining activities. Photo: Sergiu Musteață, 2018.

Roșia Montană contains the most extensive and technically diverse underground Roman gold-mining complex in the world, dating from the Roman occupation of this region in the second and third centuries AD. Roșia Montană is situated in a natural amphitheatre of massifs and radiating valleys in the historical region of Transylvania. During the Roman time, the site was known as *Alburnus Maior* as one of the most important gold mining sites, funded by Romans in the year 131 AD (Photo 3). During ancient times, gold mining occurred within four massifs that dominate this spectacular landscape and leave many heritage features. The exploitation of gold in antiquity was achieved through the technique of galleries, the traces of which excel today through the unique extent of the Roman mining system. There are over 7,0 kilometres of Roman workings galleries (Photos 4 and 5) so far discovered (Piso, 2012, pp. 25-30). In addition to the ancient network, more than 80 km of

medieval and modern galleries are added, a mining fair preserved quite well from the pre-industrial period and a special mining landscape, among which the hydro-technical works from the first half of the 18th century are highlighted.



**Photo 3.** An example of entrance and mining carriage from *Alburnus Maior*. Photo: Sergiu Musteață, 2018.



**Photo 4.** Main entrance to the ancient galleries accessible for the public. Photo: Sergiu Musteață, 2018.



**Photo 5.** A trace of ancient mining gallery from *Alburnus Maior*. Photo: Sergiu Musteață, 2018.

In 1733, when Transylvania was part of the Austro-Hungarian Empire, Emperor Karol VI ordered the construction of artificial water basins to facilitate mining at Roșia Montană. Today in Roșia Montană there are over 100 such water basins. The mining process was enlarged during the 19th century when the new machines and industrial lakes were introduced. In the period 1786-1886 in Roșia Montană, long-distance mining galleries are discovered, wax tablets with texts from the Roman period. After 1918, the state authorities granted most of the gold deposits from Roșia Montană to the locals for exploitation, through long-term concessions. In 1948 the communist authority nationalized Roșia Montană and initiated state control over mining. Underground mining was carried out until 1970 when started open cast mining by using dynamite which continued until 2006. Thus, a large part of the ancient Roman mining heritage, especially the *Cetate* massif area, which was historical monuments, were destroyed (Photo 2).

Today Roșia Montană covers a territory of approx. 650 ha where 50 historical monuments are registered since 1992 (e.g. Roman artefacts, Photo 6), of which 7 designated as monuments of national and universal value, and they are listed in the Annex of Law 5/2000 which refers to the section of the protected areas within the national spatial planning plan. The cultural heritage of Roșia Montană is also recognized by the National Territory Planning Plan, Protected Areas, where its

monuments are designated as historical monuments of exceptional national value and the entire commune is recognized as an administrative-territorial unit with a high concentration of cultural heritage features. In addition to the historic heritage, two rare geological formations are added, falling under the category “nature reserves and monuments”: Piatra Despicață and Piatra Corbului (Photo 1).



**Photo 6.** Roman artefacts from collections of local museum. Photo: Sergiu Musteață, 2018.

## The Mining Project and Community Heritage

The Roșia Montană mining project was a subsidiary activity of the Romanian government since the communist period, and after 1989 the economic situation has been at a standstill. That is why the state authorities were looking for other investments to continue acquiring the gold. On 4 September 1995, Minvest signed an association agreement with Australian Gabriel resources NL. But this agreement from the start was qualified as non-transparent, as it was carried out without a tender contest and the intention of the state body to attract foreign investors was only published on 5 September 1995. No one protested at the time, probably because of a lack of information and understanding of the negative impact of this business. Minvest/Rosiamin continued the mining activity at Roșia Montană in the Cetate quarry until 2006.

On 28 May 1996, were created the twin companies – Gabriel resources Ltd. (Canada) and Gabriel resources limited (Gabriel Jersey, UK). The second firm becomes the



subsidiary of the first in 1997. The Mining Act was only enacted in 1998 and 1997, respectively, the granting of licenses for the exploitation of natural resources was made based on old regulations. In 1997, the Canadian company, Gabriel Resources Ltd., granted the 23.000 km<sup>2</sup> land from the state-owned company for three million dollars for the mining operations in Roșia Montană. In June 1997, Minvest Roșia Montană S.A. and resources limited (UK) founded the joint-stock company Euro Gold resources, which was aimed at re-launching mining in the area. Gabriel Jersey owns more than 80,69% of the shares, and the Romanian state only 19,31% of the shares, initially another 0,23% belong to third companies, which were subsequently redeemed by the Canadian company (RMGC, 2020). This deal was criticized for not meeting public disclosure requirements. The Radu Vasile government in 1999 approved the exploitation license at Roșia Montană following the proposal of ANRM. The joint company Euro Gold resources changed its name to Roșia Montană Gold Corporation (RMGC) in 1999 and, in the same year, is transferred the mining license by a letter signed by the Minister of Industry, which has never been made public, as it was ‘confidential document’.

In 1997-2002, the RMGC is conducting major geological surveys in the area, mainly with the help of foreign companies, concluding that there are more than 300 tons of gold and 1.400 tons of silver underground. The proposed method for exploiting these resources is by destroying the Landscape and using the cyanide. But in addition to gold and silver, there are also large quantities of metal minerals at Roșia Montană, such as germanium, tellurium and high purity potassium feldspar, which RMGC representatives speak less about (Marincea, 2012, p. 74; Strâmbean, 2012, pp. 19-24). After this announcement, the mining project is on the rise and is focused on the political class in Bucharest, which is starting to submit no-confidence motions, to visit the field and to hold high-level meetings. The project’s scale is also beginning to draw the attention of the other European states that fear the negative impact and draw attention to the fact that an ecological disaster such as that in Baia Mare (Romania) in January 2000 could occur, when a dam gave way to the country. 100,000 tons of cyanide-contaminated water reached the Tisza, the Danube and the Black Sea. The environmental impact has been disastrous, with the phenomenon called *Aquatic Chernobyl*. Contaminated water killed more than 1240 tons of fish and endangered the lives of more than 2,5 million people in Romania, Hungary, Serbia and Bulgaria (Thorpe, 2000).

Between 2000 and 2007, several archaeological campaigns were carried out at Roșia Montană, under the so-called “Alburnus Maior” national Research Program, financially supported by RMGC, which claims to have made available to researchers about \$11 million. The financing of archaeological surveys, according to Romanian legislation, is part of the development’s obligations. The archaeological excavations of Roșia Montană were coordinated by the National History Museum of Romania, which in turn co-opted colleagues from the national Union Museum in Alba Iulia,

the National History Museum of Transylvania, partners from abroad, etc. In 2011-2012 systematic archaeological research was carried out in the Catalina Monulesti mining network, under the leadership of Dr Béatrice Casuet, in collaboration with archaeologists from the National History Museum of Romania and geologists from the Babes-Bolyai University in Cluj-Napoca. The result of this research was released in the summer of 2012 the entrance to the first Roman gallery – Catalina-Monulesti in Roșia Montană, but access was very selective, the large public at that time could not enter in the Roman galleries. Although the results of the investigations were impressive, especially as regards “mining archaeology”, the archaeologists have launched up heated debates, especially when the issue of the discharge of archaeological burden in the Roșia Montană area was discussed (RMGC, 2020).

Since the beginning of these transactions, Romanian NGOs have started to protest against the exploitation of gold by using cyanide technologies and the destruction of natural and cultural heritage. In 2000, the association of local and owners in Roșia Montană – Alburnus Maior is set up, which will fight directly with the RMGC. The first protests were before the town hall in Roșia Montană, where, between 2000 and 2001, daily or weekly they gathered from several tens to several hundred locals who wanted to protect their properties, chanting: “*Thieves, we do not want the mining project, We don't want cyanides*” etc. Eugen David, leader Alburnus Maior, says “*for two years, we have been only ourselves and our rudimentary protests... In 2002, we organized ourselves in particular with banners. Since then, the protests have started to be more professional, say, with clear messages and targets*” (Dulămiță & Pelehtăi, 2018). The 2002 year was crucial for the opposition to the mining project, to which dozens of NGOs from Romania and abroad joined, including Greenpeace CEE. The town was visited by hundreds of NGOs who announced support for the locals and who launched the *Salvati Roșia Montană* movement. In this context came here also Stephanie Roth, Swiss journalist, from *The Ecologist*, who becomes an active supporter of this movement, and since 2006 she has moved to Romania (Roth & Maier, 2016).

In late 2002, 40 Romanian archaeologists and historians launched an open letter to the President of Romania describing the importance of the area and the negative impact of the mining project on cultural heritage. In this context, ICOMOS has adopted a resolution against the Roșia Montană mining project. The Romanian academic world's moves were also supported by outside experts, such as Géza Alföldy of the University of Heidelberg. More than 1000 Western scientists have signed an international appeal to save Roșia Montană (Roth & Maier, 2016). In 2003 the official position of the Romanian Academy was also published, which is a special report recommends the complete stop of cyanide mining in the area of Roșia Montană. In these circumstances, the RMGC launches the process of assessing the environmental impact of the mining project.

In 2003, the Mining Act No. 85 is promulgated, which by art. 11 prohibits mining activities in areas where historical, cultural, religious and archaeological sites of particular interest are located. But the new legal provisions did not prevent the intentions of the promoters of the Roșia Montană mining project. On the contrary, RMGC launched a wide media campaign to promote the project by which they tried to prove the usefulness and benefits of such a project for local people and Romania. But the opposition to the mining project is also becoming more pronounced. On 17 March 2003, a meeting with more than 300 participants is held in front of the National Theatre in Bucharest (representing both Alburnus Maior Association, as well as NGOs, student organizations and the Romanian Academy). On 21 July 2003, the historical churches (Unitarian, Greek Catholic and Roman Catholic) issued a joint statement in Cluj-Napoca that they will never sell their church property at Roșia Montană and support the local community in the fight against the RMGC. Greenpeace Hungary is also joining the campaign, which organized an action at the environment ministry in Budapest in September 2003, requesting the ESPOO Convention to be launched. Finally, the Hungarian environment ministry opposes the Roșia Montană mining project. But the Canadian government announces support for the RMGC initiative. In 2004 Alburnus Maior organized a protest outside the Canadian Embassy in Romania to draw attention to the situation in Roșia Montană (Roth & Maier, 2016).

As the initiators and supporters of the Salvati Roșia Montană movement admit, they had no promotion tool at the beginning. But gradually they started using social media (Facebook, Twitter, Youtube, etc.) that radically changed the dynamics and extent of the opposition movement to the mining project. In 2003, a group of artists from MindBomb joined the Save Roșia Montană campaign, which helps them very much in promoting their civic position (MINDBOMB, 2020). MindBomb helps them develop the brand of the Save Roșia Montană movement – the green blood leaf, which has become “a symbol of national movement” since 2004. In the years 2003-2004, some information actions, marches, caravans, flashmob, etc. were organized, practically monthly, sometimes in several cities in the country. Among these are the marches to walk on the Ariesului Valley, from Cluj to Roșia Montană – there was talk about the people in the area who were the situation with the mining project. The first walk March from Cluj Napoca to Roșia Montană took place between 6 and 11 October 2003 with the participation of over 100 people. It was a sign of protest against the RMGC and an act of solidarity with locals who did not want to be displaced due to the mining project. The 2004 FanFest Festival launched several hundred artists to Roșia Montană who became supporters of the Salvati Roșia Montană movement. The FanFest has become not only a music festival but also a platform for public debate, with workshops, round tables and debates being organized (Dulămiță & Pelehtăi, 2018).

In 2004, after the archaeological excavations at Roșia Montană, the Culture Minister, signed an act that, in a way, allowed mining in the area, based on the consultative vote of the national archaeological Commission at the end of 2003. But this decision was challenged in court. Mircea Babeș, one of the most prominent Romanian archaeologists was the only member of the national archaeological Commission to vote in 2003 against the Crarnic Massif's archaeological discharge check, which, he said, would have meant destroying the most valuable traces of the Romanian mining at Roșia Montană, ancient Alburnus Maior. The Appeal Court in Alba Iulia annulled the Culture Ministry's decision in the winter of 2004 in 2005. But the Culture Ministry, based on the decision of the national archaeological Commission and the request of the county culture inspectorate in Alba, issued a new decision in summer 2011 to discharge the archaeological charge for the Carnic Massif. The RMGC financially supported the work of the so-called "independent monitoring Group on cultural Heritage in Roșia Montană", composed of eight universities, which since February 2011 met in five "sessions", which claimed that the Rosia mining project was the best opportunity to save the archaeological heritage (Babeș, 2012, pp. 104-105). But as other cultural heritage specialists said – *"as research progresses – especially in the fields of archaeology and mining archaeology, but also in the fields of architecture, history or natural sciences – the significance of the site is becoming increasingly rich, complex and consolidated."* (Bâlici & Apostol, 2012, p. 113).

In March 2006, the MindBomb group, in partnership with Alburnus Maior association, distributed 12.000 posters in a series of localities in Romania – Cluj, Bucharest, Constanta, Timisoara, Arad, Bistrita, Sibiu, Alba Iulia, Deva, Baia Mare, Oradea, Targu Mures, Sighisoara, Petrosani, Valea Ariesului, Abrud, Campeni and Roșia Montană were drawing attention to the environmental risks and corruption in the country. Greenpeace activists continued their protests against the Romanian state institutions in 2006. On the other hand, the RMGC is launching another documentary film against its critics, trying to demonstrate that the mining project is beneficial to the local Community. However, in 2006 the Roșia Montană mine was stopped. Finally, almost all mining works are stopped, with massive staff redundancies taking place, with more than 1000 families remaining without the main source of income. This situation has increased social tension within the local community. In this situation, Roșia Montană Gold Corporation (RMGC) used this situation to further argue the need for its mining project and to address the unemployment problem in the area.

In 2009 the mining project was promoted even more. On the one hand, Economy Minister supports the rapid implementation of the project proposed by RMGC, even if at the public hearings he was welcomed by a group of protesters. On the other hand, RMGC proposes the creation of Piatra Alba where the inhabitants of Roșia Montană are displaced. In May 2009, the inauguration of the Recea neighbourhood in Alba Iulia is taking place, where 125 families from Roșia Montană are

transferred to new houses (RMGC, 2020). But a large part of the locals as opposed to the relocation of the church and the exhumation of the tombs in Roșia Montană. The Romanian national Audiovisual Council on 24 June 2009, requested that the advertising spots “4 billion” be stopped because they manipulate the Romanian public opinion, after several reports on the illegality of the media campaign supported by RMGC.

Also in 2009, a bill amending the Romanian Mining Act is being adopted, which would facilitate the approval procedures and the transfer of ownership rights to the mining project holder. This project was clearly in favour of the RMGC. That is why the public’s reaction was unprecedented, people massively protested, signed petitions against the government. For 12 weeks, numerous written moves have been addressed to lawmakers against these legislative changes. The opposition parties, since then, PSD and PNL have expressed their opposition to the bill (Simion, 2012, p. 137). Although in May 2010, the European Parliament adopted a resolution on a general ban on the use of cyanide in mining in the European Union, and the EU Committee on Petitions discusses a petition on the Roșia Montană minister project, RMGC does not dislike its intentions to exploit the golden area of the Apuseni Mountains. The resolution has never been transformed by the European Commission into a Directive binding on the EU Member States, leading to the decision of each state.

Over the years, the efforts to save Roșia Montană have also been strengthened by professional organizations such as Pro Patrimonio and ARA, which have attracted additional support and led work to grant the area World Heritage status. On 26 January 2011, the National Commission of Historical Monuments (CNMI) recommended the Ministry of Culture to include Mountain Roșia in the UNESCO Tentative list of objectives. But the process has proved to be a difficult one and government included this site in the Tentative list in February 2016 (Apostol & Bălăci, 2012, p. 31; UNESCO TL, 2020).

Meanwhile, on 14 July 2011, the Romanian Ministry of Culture issues a new certificate of archaeological discharge of the Carnic Massif and Roșia Montană. Signing such a certificate has once again aroused discussions, as it required the unloading of archaeological state on a much larger surface than the actual surveyed surface. At the same time, such a certificate does not invalidate the monument’s protection status, the legal procedure stipulates that after unloading, the declassification phase, which has never been done by the RMGC, must follow. As a result, the certificates of archaeological unloading have no legal effect on the protection status of the areas for which they were issued, and therefore do not issue the territory concerned by the company of the task of cultural heritage.

Although the Culture Minister in 2010 pronounced himself for the World Heritage list listing of Roșia Montană. But, in 2011 he became a supporter of the mining project. This resolution has caused a new wave of dissatisfaction. The Romanian Academy updates its position on the Roșia Montană mining project, which seeks to prevent an ecological and cultural disaster with multiple unacceptable consequences. The judgment points out that “*An objective analysis demonstrates that the project is not a work of public interest and therefore does not justify negative spill-over effects and risks involved in the project*”, noting that the 17-20-year project does not provide a sustainable development solution and does not solve social and economic problems (Apostol & Bălici, 2012, p. 31). On the contrary, this project will lead to the destruction of the more than 2000-year-old Roșia Montană mountain community by displacement of the population, demolition of buildings (including historical monuments), churches and moving some cemeteries are unacceptable. The economic benefits of the Romanian state, derived from the 2% royalties on exploitation and various taxes, are insignificant to the consequences of the project. Surface exploitation in four open quarries and the creation of a waste-build up basin behind a 180-meter high dam closing the Corna Valley would cause severe mutilation of the landscape, with the planned exploitation seriously jeopardizing the Alburnus Maior archaeological area, unique in the world and of great historical and cultural value. This is why the Romanian Academy considers that the numerous individual and collective protests of civil society, of scientific, religious institutions (including the Romanian Orthodox Church), cultural institutions in the country and abroad, of some personalities and scientific and cultural people, cannot be ignored. One cannot overlook the resistance and dissatisfaction of a part of the local population affected by the project, who risk losing their properties and leaving the places where they and their ancestors lived for a lifetime.

On 11 and 12 November 2011 in Cluj-Napoca the Conference *Roșia Montană in Universal History* took place, Organized by Babes-Bolyai University, Romanian Academy and ICOMOS Romania. Geologists, geographers, chemists, biologists, historians, archaeologists, architects, economists, engineers, sociologists, agronomists, linguists, etc. from various countries (Germany, Italy, Great Britain, Hungary, Romania) discussed the natural, historical, archaeological and cultural heritage of the Roșia Montană area (RCRMUH, 2011).

In late 2011 the results of a journalistic investigation were released into the “Roșia Montană affair”, which showed that a small Canadian company turned into a big investor in Romania, based on deposits in the Apuseni Mountains, managed to list the deal on the stock exchange, bringing 2,6 billion dollars. Between 1997 and 2011, the Canadian company collected over 800 million dollars. RMGC claims it has invested 500 million dollars in water purification stations that were removed from mining, but most of them have allocated them for archaeological research and preservation of cultural heritage (Bojin, 2011).

Toward 2012, the Romanian society was already agitated on the situation around Roșia Montană. The Romanian journalist investigation team from *Romania, I love you!* broadcasting made a special edition on the subject in May 2012, called *Roșia Montană – a gold mine from which everyone tries to squeeze money*. The report also revealed irregularities in water, soil and nature pollution that occurred as a result of the mining of the cyanide mining sector, with many million euros needed to make the area greener, with the discontent of the inhabitants of the locality who do not want to sell their houses to the Canadian corporation, other locals would have wanted to sell but were not given the required price, locals who illegally built houses in areas of interest to the firm and then sell them etc. (PROTV, 2012).

Since January 2012, public protests started asking President and the government to stop the mining project at Roșia Montană. Protesters request access to objective information on the mining project. The protest of 28 January 2012 on some panels was written: “*I think therefore I don’t belt RMGC’s adds*”. In February 2012, when a new government came, the new Prime Minister was asked to block the Roșia Montană cyanide mining project as a matter of urgency (Eurodeputatii, 2012).

The same year, representatives of Save Roșia Montană organized several protests, campaigns of *photo-bombs*, *flashmobs*, concerts, *they paid off* etc. (Dulămiță & Pelehtăi, 2018). At the international level, the Roșia Montană case has again been the subject of discussions. Following the proposal of the national ICOMOS committees Romania, Canada, Hungary and the Executive Committee of ICOMOS, the participants meeting at the 17th General Assembly of ICOMOS, held in Paris adopted the resolution – *Protection of cultural heritage concerning mining exploration and operation: Roșia Montană*, through which I remind the Romanian authorities, that protecting the cultural heritage of Roșia Montană is a priority! Affirming the significance of Roșia Montană/Alburnus Maior, a cultural landscape which evolved over two millennia, from the unique vestiges of the Roman underground mining system to the Middle Ages, Renaissance and the Modern Times, together with the traditional mining town, inherited from the Habsburg times (ICOMOS Resolution GA 2011/17). Association ARA – Architecture. Restoration. Archaeology, supported by the local community through their organisation *Alburnus Maior*, launched in 2012 independent conservation of the built heritage, which grew into a volunteer involvement platform called *Adopt a House at Roșia Montană*, which is currently underway. This program brought to Roșia Montană more than 600 volunteers, who intervened in the restoration of 12 houses. We believe that this project remains one of the most consistent actions dedicated to cultural heritage with visible and sustainable effects.

2012 was an electoral year in Romania and politicians speculated again on the issue of Roșia Montană case. The Social Democrats promise to stop the project as soon as they win the elections. But after elections, they forgot about this election promise. The Roșia Montană case becomes the “great deal of discord” between two major

political parties. In the context of the political changes in Romania, after the 2012 parliamentary elections, ICOMOS Romania, the Order of the Romanian Architects, the Union of the Romanian Archives, the ARA Association and the Pro Patrimonio Foundation address the Prime Minister, the Minister of Environment and the Ministry of Culture a joint letter on the public consultation initiated by the Ministry of Environment and Climate change on the Roșia Montană Gold Corporation mining project (ROȘIA MONTANĂ: Lobby sau consultare publică?, 2012).

## 2013 – The Year of Major Protests

In the summer of 2013 discussions around the Roșia Montană mining project are even more stirring when a new bill is being made. The Prime Minister said he made this decision to avoid a lawsuit filed against the Romanian state by RMGC. The so-called “Roșia Montană Law” has been harshly criticized by the opposition as anti-constitutional, in violation of international law and EU law. Thus, on 1 September 2013, “madness” begins in the press, in the streets, in Parliament, in the government, etc. thousands of people start to take to the streets, protest the mining project and advocate the protection of cultural heritage and the environment. First, there was the daily protest, more than a week, in Bucharest, along with some big cities in the country, such as Alba Iulia, Cluj, Iași and others, after which it spread to other cities in Romania and abroad. At the peak, around 50 cities across the country and 30 cities abroad simultaneously protested – “*United, we save Roșia Montană!, United, we save the Apuseni Mountains!*” The protests took place between September 2013 and February 2014, during which the national and international press reported extensively on the situation in Romania.

On 9 September 2013, the Prime Minister announced that the bill would not pass by the Parliament because of street protests. The same goes for street protests, the price of RMGC shares on the stock exchange is down by 48% and the company announces it will sue the Romanian state. Protesters are accused of being paid by Soros and other occult forces. Also in 2013, Roșia Montană site was listed as seven most endangered sites and monuments in Europe, drawn up by *Europa Nostra* heritage organization (Bălci & Iamandescu, 2015, p. 4). As a result of large-scale public protests and movements, several national and international companies, including the World Bank, announced they would not support a controversial mining project that would harm the environment and society. On 10 December 2013, the Mining Act, which established a permissive legal framework for the RMGC mining project, was rejected by the Romanian parliament. In this context, in 2014-2015 RMGC laid off most employees and used these layoffs to press the Romanian authorities to endorse the special law (RMGC, 2020).



Trials in court continue in 2014. The Suceava Court of Appeal granted the request submitted by three NGO to temporarily suspend the certificate of archaeological discharge for the Carnic Massif issued in July 2011 in favour of Roșia Montană Gold Corporation (RMGC), but the decision was not irrevocable and could be challenged in court. As far as we know, ten opinions and plans, which RMGC needed to develop the mine, were irrevocably cancelled by the Romanian courts.

Protests continue on the streets demanding the resignation of the government and local politicians. In April 2014, the bill on the exploitation of gold-silver minerals from Roșia Montană was debated in the Chamber of Deputies, which finally rejected the project on 3 June 2014. In January 2015, Gabriel resources sent an official letter to the President of Romania and the Prime Minister calling for an amicable settlement of the dispute over granting mining authorization at Roșia Montană. In July 2015, Gabriel resources Ltd. officially announced that they had filed their request for the beginning of international arbitration against Romania because the state refused to allow them to start exploiting the mining resources in the Apuseni Mountains (GOLD-DIGGING, 2017, p. 6).

## The Long and Difficult Path to the UNESCO World Heritage List

On 30 December 2015, the Ministry of Culture updated the Roșia Montană and Carnic area as a historic site of national importance, and on 5 February 2016, the proposal to include the Roșia Montană site on the UNESCO World Heritage Tentative List was submitted (UNESCO TL, 2020).

On 29 April 2016, in the result of the court proceedings brought by *Alburnus Maior*, the Cluj Court determines that the information related to the international arbitration Gabriel resources Ltd. versus Romania is public and must be communicated to interested parties under the law on access to public interest information. In August 2016, the media re-focused on Gabriel resources Ltd. and international arbitration and announced that the trial would take place in the USA in Washington D.C., the company asking Romania to pay damages of over 1 billion dollars (GOLD-DIGGING, 2017, p. 9). In 2016, the Romanian Government tabled a proposal for a ten-year moratorium on the use of cyanide in mining to the Parliament.

In autumn 2016, the World Heritage Committee adopted the States' proposals for Tentative lists, among them is the Roșia Montană site, proposed by Romania. At the end of October 2016, the National Heritage Institute managed to draw up the file on inscribing of Roșia Montană on the World Heritage List, and on 29 November 2016, the National Commission of Historical Monuments of Romania approved the submission of the dossier. In December 2016, the media reported contradictions between the Prime Minister and the Minister of Culture – on submitting Roșia

Montană's dossier to the World Heritage List. On 4 January 2017, on the last day of office, the Minister of Culture sent the file "Roșia Montană mining cultural landscape" to UNESCO (RMML, 2017).

But, after the new Government was appointed, the Rosia Montana case was again on political and public agenda. In late August 2017, the Prime Minister of Romania announced that *"...we will try to withdraw, write we are no longer keeping our point of view, putting us in a very strange situation toward international bodies, we are trying to see..."* (MT, 2017). In September 2017, the Minister of Foreign Affairs, claimed the Roșia Montană case was illegally filed with UNESCO, and that is to say the Executive would ask for the withdrawal of the request. The political opposition condemned these statements, believing that, *"... including in the World Heritage list would represent the international recognition, at the highest possible level, of the exceptional value of the cultural and natural heritage of Roșia Montană"* (AVERTIZARE, 2017). In the context of statements by the government representatives to withdraw the Roșia Montană case in autumn 2017, new protests are underway in Bucharest and the big cities of the country on the issue, with protesters opposing the withdrawal of the file.

Of the other part, 2017 was a positive year in terms of the progress of the procedures for registering Roșia Montană in the World Heritage list. On 1 March 2017, the UNESCO World Heritage Center announced the technical conformity of the file "Roșia Montană mining cultural landscape" and the initiation of evaluation procedures. The ICOMOS meeting in May 2018 recommended to inscribe the property "Roșia Montană Mining Landscape" (ID no. 1552, Romania) on the World Heritage List and also in the World Heritage List in Danger on basis of criteria (ii) and (iv). The Romanian authorities purposed the inscription on criteria (ii), (iii), (iv), (v), and (vi), but ICOMOS suggested to limit just on criteria (ii) and (iv) (ICOMOS, 2018, pp. 25-26). The dossier was included by the World Heritage Center into the agenda of the 42nd World Heritage Committee Meeting, Bahrain, 24 June – 14 July 2018. The draft decision takes over the recommendations of ICOMOS and refers to the recognition of the exceptional universal value of the site, as well as to the necessary protection measures expected from the Romanian state, with specialized international assistance.

With that long history, the dossier for the inscription of the Roșia Montană Mining Landscape into the World Heritage List, on 28 June 2018, the Ministry of Culture, through the Ministry of Foreign Affairs and the Romanian Ambassador to UNESCO, addressed to the World Heritage Committee the request of stopping the procedure for nomination because of the International Court for Settlement of Investment Disputes (ICSID) lawsuit that the Mining Company started against Romania claiming a huge amount of money in compensation for not being allowed to mine in Roșia Montană. Suspending a nomination file with an inscription recommendation

is an unusual situation within the World Heritage Convention frame (EXCLUSIV, 2018).

Government's actions made new 'waves' in mass media and social protests. The experts in cultural heritage from the "Vasile Parvan" Institute of Archaeology, the National University of Arts, Babes-Bolyai University, the Order of the Architects of Romania, the Roșia Montană cultural Foundation, the Pro Patrimonio Foundation signed an open letter to the President of Romania, which shows that the historic Roșia Montană mine site has universal cultural value, and this value is in danger and must be protected as a matter of urgency. ICOMOS Romania advocated for Rosia Montană inscription on the World Heritage List too: *"ICOMOS Romania finds the recent action of the Romanian Government to stop the course of the Roșia Montană nomination file and inscription in the UNESCO World Heritage List (WHL) as UNFOUNDED, INOPPORTUNE and EXTREMELY WORRYING. We consider that it is in the interest of Romania that the UNESCO procedure should continue"* (ICOMOS Romania, 2018).



**Photo 7.** Picture from the 42nd World Heritage Committee, Manama, Bahrain, 2018. Personal archives: Sergiu Musteață.

Under these circumstances, several messages were sent from participants at the 42nd session of the World Heritage Committee in Manama, Bahrain. One of the Resolutions of the 5th International NGO Forum on World Heritage at Risk, from Manama, between 22 and 23 June 2018 (Photo 7), was concerned "Roșia Montană (Romania) – a mining landscape to be preserved as a site with universal value":

“... *Roșia Montană (Romania) is an outstanding Roman gold mines landscape which should be preserved given the acknowledgement of its universal value in the ICOMOS report for the 42nd session of the World Heritage Committee in Manama, Bahrain... The member state is strongly encouraged to complete the procedure of inscription and stand ready to continue our professional support to the protection and conservation of this outstanding property.*” (WHW, 2018)

Over **43,000 people** have signed a petition asking UNESCO not to postpone this decision and to consider all the benefits that World Heritage listing would bring for the heritage and community of Roșia Montană:

“... *We are asking you to help Roșia Montană’s vulnerable heritage gain the recognition and urgent intervention measures that it needs. Roșia Montană is indeed in danger, as ICOMOS said. Any delay in taking the necessary steps to protect Roșia Montană are posing at risk the site...*” (Dear UNESCO, 2018)

The representatives of various organizations, including a representative of the *Europa Nostra*, addressed directly to the members of the World Heritage Committee that inscription of the Roșia Montană on the World Heritage List as recommended in the draft decision. Governments come and go, but heritage must be preserved and transmitted for future generations. Dear World Heritage Committee members – Save Roșia Montană! Razvan Rab, the state secretary who represented the Romanian government in Bahrain, said the trial was not related to the opening of a mine, but the negotiation of compensations. Which would mark that the decision to postpone the World Heritage list of Roșia Montană is political. On 2 July 2018, the UNESCO World Heritage Committee decided to return the dossier (referral) to the State (WHC 42, 2018).

In early 2019 the Gabriel Resources Ltd. obtained \$26 million from its shareholders to finance the international arbitration case against Romania, with the company in financial difficulty. In this process, the World Bank Court rejected the testimonies and legal arguments of residents, non-governmental organizations Alburnus Maior, Greenpeace Romania and CIDRM from Romania, with the support of CIEL (Center for International Environmental Law), ClentEarth and ECCHR (European Center for Constitutional and Human Rights) who made an *amicus curiae* petition in which “*new facts were presented regarding violations of constitutional, environmental and human rights law in connection with the efforts of Gabriel resources to build the largest open career mining exploitation in Europe*” (Țimonea, 2019). The new Romanian Culture Minister, continues to argue, like his predecessors, that including Roșia Montană in the World Heritage list, could cause Romania to lose the process with the RMGC. In June 2019, the Canadian company obtains from the national mineral resources Agency the extension of the concession license for the gold area in Roșia Montană.

2020 brings the inclusion of Roșia Montană in the World Heritage list again on the “negotiating table”. Political conflicts between parties are reigniting, especially as there are a new Culture Minister and another governing political party – the National Liberal Party, of course, the indecision displayed by the new government led people to go back to the streets, in Alba Iulia, in Bucharest etc.

The ProPatrimonio Foundation and the AARA Association sign on 28 January 2020, a new open letter – *About the vocation of missed opportunities*, this time to the Minister of Culture which provide some clarifications in the context of the public and institutional debate on the resumption of the procedure for including Roșia Montană in the World Heritage list. The authors of the letter highlight that the state of the Roșia Montană heritage has come to the attention of the state institutions EXCLUSIVELY in the context of the debates on the World Heritage list (RM Scrisoare deschisă, 2020).

Finally, on 31 January 2020, The government is giving up and announces through the Minister of Culture, that the procedure to register Roșia Montană is to be resumed. The official approach of the Romanian Government was sent to the UNESCO World Heritage Center through the Romanian Permanent Delegation to UNESCO. Thus, the procedure for registering the “Roșia Montană mining landscape” in the World Heritage list was resumed at Romania’s request. The dossier could be discussed at the next meeting of the World Heritage Committee to be held in July 2020.



**Photo 8.** View of a house and church from Roșia Montană. Photo: Sergiu Musteață, 2018.

## Conclusions

Over the years, the local community, many Romanian NGOs, scholars and citizens supported actions for the protection of Roșia Montană from mining project, which will have a negative impact on the natural and cultural landscape.

However, as a result of the launch of the mining project, important parts of the Roșia Montană site were studied. A team of Romanian and foreign archaeologists developed a mining archaeology project with impressive results. This is how the galleries of the mines from the Roman times were discovered, which are a unique universal heritage. For this reason, the Roșia Montană site was nominated for inscription in the UNESCO World Heritage List.

At the same time, the economic interest of foreign investors, politicians and Romanian businessmen aroused debates both at the local and national community level. The movement to protect the cultural heritage of Roșia Montană has become symbolic and representative. Therefore, it is considered the largest social movement in Romania after the 1989 revolution.

The Roșia Montană case, on the one hand, has upset Romanian society, has divided the local Community, the archaeological community, and on the other hand, the risks of the mining project have brought people together around a national movement, which can be rightfully considered – community heritage. So, Roșia Montana site demonstrate clearly that, some explore the future while others explore the past. Both equally fascinating and necessary. But, just together we could manage a present and think for the better future, which means that community heritage and sustainable development have to be a common approach. The mining landscape of Roșia Montană deserves to be adequately protected and capitalized in order to pass on this heritage to future generations.

We hope that one day this case will become the subject of civics and history textbooks, because “the fight for Roșia Montană” means civic and community spirit, responsibility, democratic citizenship, interest in cultural heritage, archaeology, history, community heritage, etc.

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## **PART 6**

# **RESOURCES ON ARCHAEOLOGICAL EDUCATION**

### **SUGGESTED BOOKS AND ONLINE RESOURCES ON ARCHAEOLOGICAL EDUCATION FOR TEACHERS IN ENGLISH (Danijela Trškan)**



## **SUGGESTED BOOKS AND ONLINE RESOURCES ON ARCHAEOLOGICAL EDUCATION FOR TEACHERS IN ENGLISH**

### **Abstract**

Since the publication 'ARCHAEOLOGICAL HERITAGE AND EDUCATION: An International Perspective on History Education' is primarily aimed at history teachers in primary and secondary schools, we have selected a number of books and manuals on archaeology education that teachers can use in history lessons. We have added content that both highlights the complexity of archaeological education and provides concrete suggestions and guidelines for teachers to introduce students to active archaeology in schools. We add the list of important encyclopaedias of archaeology in English. The list of books, manuals and online resources represents a small selection. We encourage teachers to use local or foreign books, manuals, various handbooks, articles and other resources published online. The selected books in English and online resources can help history teachers and students (future history teachers) to successfully integrate archaeology in teaching of history in primary and secondary schools.

**KEY WORDS:** ARCHAEOLOGY, HISTORY, TEACHERS, PRIMARY SCHOOLS, SECONDARY SCHOOLS, BOOKS, ONLINE RESOURCES.

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## **SUGGESTED BOOKS AND ONLINE RESOURCES ON ARCHAEOLOGICAL EDUCATION FOR TEACHERS IN ENGLISH**

### **SUGGESTED BOOKS FOR TEACHERS IN ENGLISH (by the year of publication)**

**GILBERT CHARLES-PICARD (ED.) (1997) *Larousse Encyclopedia of Archaeology*. London: Chancellor Press. 432 pages.**

#### **Table of Contents:**

INTRODUCTION;  
ARCHAEOLOGY AT WORK:  
What Is Archaeology?;  
How Monuments Survive;  
How to Locate a Site;  
The Excavation;  
Establishing Dates;  
Restoration, Exhibition and Publication;  
THE RECOVERY OF THE PAST:  
Prehistoric Archaeology;  
Western Asia before Alexander;  
The Nile Valley;  
The Aegean World;  
Classical Greece;  
The Etruscans;  
The Romans;  
Europe in the Bronze and Iron Ages;  
The Americas;  
India, Pakistan and Afghanistan;  
The Far East: South-East Asia; China.

**TIM MURRAY (ED.) (1999) *Encyclopedia of Archaeology. The Great Archaeologist. Volume 1, Volume 2*. Santa Barbara: ABC-Clio. 950 pages.**

**KAROLYN SMARDZ & SHELLEY J. SMITH (EDS.) (2000) *The Archaeology Education Handbook: Sharing the Past with Kids*. Walnut Creek, Lanham, New York, Oxford: AltaMira Press, Society for American Archaeology. 447 pages.**

**Table of Contents:**

INTRODUCTION;

PART I: THE CULTURE OF TEACHING: THE EDUCATIONAL SYSTEM AND EDUCATIONAL THEORY:

- 1 Accessing Educational Systems in Canada and the United States;
- 2 Governmental Education Standards and K-12 Archaeology Programs;
- 3 Cognitive and Moral Development of Children: Implications for Archaeology Education;
- 4 Learning and Teaching Styles: Reaching All Students;
- 5 Heritage Education for Special Students;
- 6 Developing Lessons about Archaeology: From a Teacher's Journal;

PART II: THE INTERFACE: ARCHAEOLOGISTS WORKING WITH EDUCATORS:

- 7 National Geographic and Time Magazine as Textbooks: How Teachers Learn about Archaeology;
- 8 Including Archaeology in K-12 Teacher Education;
- 9 Brokering Cultures: Archaeologists Reach Out to Teachers;
- 10 From Context to Content: Instructional Media for Precollegiate Audiences;
- 11 Teaching Archaeology with Educational Technology;
- 12 Against the Clock: Introducing Archaeology in Time-Limited Situations;
- 13 Assessing Archaeology Education: Five Guiding Questions;

PART III: THE DANGER ZONES: ISSUES IN TEACHING ARCHAEOLOGY:

- 14 Teaching Archaeology without the Dig: What's Left?;
- 15 Simulated Excavations and Critical Thinking Skills;
- 16 Digging with Kids: Teaching Students to Touch the Past;
- 17 Archaeology and Values: Respect and Responsibility for Our Heritage;
- 18 Who Paints the Past? Teaching Archaeology in a Multicultural World;
- 19 Gatekeeping, Housekeeping, Peacekeeping: Goals for Teaching Archaeology in the Public Schools;

PART IV: THE PROVENIENCE: ARCHAEOLOGY EDUCATION IN THE REAL WORLD:

- 20 Applying the Message to the Medium;
- 21 Politics, Publicity, and the Public: Urban Archaeology in the Public Eye;
- 22 Crow Canyon Archaeological Center: Why an Independent, Nonprofit Center Makes Sense;
- 23 Teaching the Past in Museums;
- 24 Teaching Archaeologists to Teach Archaeology;
- 25 On Site and Open to the Public: Education at Archaeological Parks;
- 26 Archaeology Education Programs: A Long-Term Regional Approach;

PART V: CONCLUSIONS AND PERSPECTIVES:

27 Environmental Education: Perspectives for Archaeology;

28 Retrospective: Personal Thoughts on the Maturation of Archaeological Education.

**TIM MURRAY (ED.) (2001) *Encyclopedia of Archaeology: History and Discoveries. Volume I (A-D), Volume II (E-M), Volume III (N-Z)*. Santa Barbara: ABC-Clio. 1432 pages.**

**JOHN COLLIS (2002) *Digging Up the Past: An Introduction to Archaeological Excavation*. Stroud, Gloucestershire: Sutton Publishing. VII, 183 pages.**

**Table of Contents:**

- 1 Paradigms;
- 2 Site Preparation;
- 3 On Site;
- 4 Finding Things;
- 5 Contexts;
- 6 Making the Record;
- 7 Finds Processing;
- 8 Stone Buildings;
- 9 Wooden Buildings;
- 10 Pits, Ditches and Banks;
- 11 Burials;
- 12 Sampling.

**STEPHEN WASS (2005) *The Amateur Archaeologist*. (First Published in 1992). Abingdon, Oxon: Taylor & Francis. 160 pages.**

**Table of Contents:**

INTRODUCTION;

- 1 WHAT IS ARCHAEOLOGY ALL ABOUT?:
  - In the Public Eye;
  - The Historical Background;
  - What Do Archaeologists Do?;
  - Career Openings in Archaeology;
  - Finding out about Archaeology;
  - The Archaeologist and the Law;
- 2 GETTING OUT AND ABOUT – BASIC FIELDWORK:
  - Reading the Landscape;



- Making Visits to Sites and Monuments;
- Exploring off the Beaten Track;
- Starting on Surveying;
- Working with Buildings;
- 3 REAL RESEARCH–FIELD SURVEY PROJECTS:
  - Advanced Survey Methods;
  - Fieldwalking;
  - Organization and Management;
  - Publication;
- 4 JOINING AN EXCAVATION:
  - Fieldwork and Excavation;
  - Making Preparations;
  - Looking after Yourself;
- 5 EXCAVATIONS–GETTING DOWN TO EARTH:
  - The Principles of Excavation;
  - Tools of the Trade;
  - Site Organization;
  - Making Sense of It All;
- 6 EXCAVATIONS–THE SUPPORT SERVICES:
  - Recording;
  - Working with Finds;
  - On-Site Survey;
  - Photography;
- USEFUL ADDRESSES;
- FURTHER READING.

**JIM GRANT, SAM GORIN & NEIL FLEMING (2008) *The Archaeology Coursebook: An Introduction to Themes, Sites, Methods and Skills*. Third Edition. London, New York: Routledge. XXVIII, 448 pages.**

**Table of Contents:**

- INTRODUCTION;
- PART I: UNDERSTANDING ARCHAEOLOGICAL RESOURCES:
  - 1 Archaeological Reconnaissance;
  - 2 Excavation;
  - 3 Post-Excavation Analysis;
  - 4 Understanding Dating in Archaeology;
  - 5 Archaeological Interpretation;
- PART II: STUDYING THEMES IN ARCHAEOLOGY:
  - 6 Religion and Ritual;
  - 7 The Archaeology of Settlement;
  - 8 Material Culture and Economics;

9 People and Society in the Past;  
PART III: ISSUES IN WORLD ARCHAEOLOGY:  
10 Managing the Past;  
11 Presenting the Past;  
PART IV: EXAMINATION SUCCESS AND BEYOND:  
12 Studying for Success in Archaeology Exams;  
13 Doing an Archaeological Project;  
14 Additional Resources;  
APPENDIX: Answers and Mark Schemes;  
GLOSSARY OF TERMS AND ABBREVIATIONS.

**DEBORAH M. PEARSALL (ED.) (2008) *Encyclopedia of Archaeology. Volume I (A), Volume II (B-M). Volume III (N-Z)*. Amsterdam, Boston, Heidelberg, London, New York, Oxford, Paris, San Diego, San Francisco, Singapore, Sydney, Tokyo: Elsevier/Academic Press. XXXVIII, 2382 pages.**

**BARRY CUNLIFFE, CHRIS GOSDEN & ROSEMARY A. JOYCE (EDS.) (2009) *The Oxford Handbook of Archaeology*. Oxford: University Press. XVII, 1161 pages.**

**Table of Contents:**

PART I: THE NAME AND NATURE OF ARCHAEOLOGY:  
1 The Discipline of Archaeology;  
2 The Formative Century, 1860-1960;  
3 The Theoretical Scene, 1960-2000;  
4 Into the Future;  
5 Technologies;  
PART II: TOOLS OF THE TRADE:  
6 Measuring the Passage of Time: Achievements and Challenges in Archaeological Dating;  
7 Human Activity in a Spatial Context;  
8 Data Collection by Excavation;  
9 Mastering Materials;  
PART III: EARLY HUMANS:  
10 The Nature of Humanness;  
11 Early Hominids;  
12 The Emergence of Homo Sapiens Sapiens;  
13 The Neanderthals;  
14 Peopling the World;  
PART IV: STRATEGIES FOR SURVIVAL:  
15 Hunters and Gatherers;

- 16 Early Farming and Domestication;  
 17 Studying Human Diet;  
 PART V: COMPLEX SOCIETIES AND THE FORMATION OF EARLY STATES:  
 18 Cultural Complexity;  
 19 Trade and Interaction;  
 20 China: State Formation and Urbanization;  
 21 Mesoamerica;  
 22 The Central Andean Region in Prehistory;  
 PART VI: SOME REGIONAL OVERVIEWS:  
 23 The Mediterranean and Its Hinterland;  
 24 The Archaeology of Sub-Saharan Africa;  
 25 Pre-Islamic Central Asia;  
 26 The Circumpolar Zone;  
 27 East Asia;  
 28 Australasia;  
 29 The Pacific Islands;  
 30 North America;  
 31 South American Archaeology;  
 PART VII: ISSUES AND DEBATES:  
 32 Indigenous Voices, Archaeology, and the Issue of Repatriation;  
 33 Sex and Gender;  
 34 Archaeological Representation: The Consumption and Creation of the Past;  
 25 Community Archaeology.

**JANE EVA BAXTER (2009) *Archaeological Field Schools. A Guide for Teaching in the Field*. London, New York: Routledge. 192 pages.**

**Table of Contents:**

- Chapter 1: The Archaeological Institution of Field Schools: The Development of an Institution; How We Talk about Field Schools Today; About This Book;  
 PART I: FIELD SCHOOL TEACHING: PEDAGOGY AND PRACTICE:  
 Chapter 2: Contemporary Climates: Teaching Archaeology and Field School Training: Cultural Resource Management Training; Working with the Public; The RPA and Field School Certification; Teaching as an Ethical Issue; Field Schools as Learning Communities; Lines of Convergence; Point of Contention;  
 Chapter 3: Pedagogical Concerns and Field School Development: Developing Teaching Goals; Translating Teaching Goals into Student Learning Outcomes; The Idea of Experiential Learning; Experiential Learning and Learning Communities; Assessing Learning in the Field;  
 Chapter 4: Structuring Experiential Learning in the Field: Abstract Conceptualization; Active Experimentation; Concrete Experience; Reflective Observation;

**PART II: FIELD SCHOOL LOGISTICS:**

Chapter 5: Legal and Administrative Issues: Universities and Off-Site Programs; Site Agreements and Permissions; Health, Safety, and Liability (Liability Waivers); FERPA; Insurance; University Police or Public Safety Offices; Contracts and Providers; Connect on Your Campus;

Chapter 6: Personnel Issues: Defining Your Role as a Project Director and an Instructor; Staff and Organizational Structure (Graduate Student Supervisions; Professional Project Staff; Codirector or Go It Alone?); Health and Safety (Identifying Hazards at Your Site; Collecting Personal Information; Mitigating Risks for Students); Standards of Dress and Personal Appearance; Field Etiquette and Interpersonal Issues (Setting Standards of Behavior; Student-Generated Standards of Behavior; Working Together in the Field); Standards and Protocols for Public Interaction;

Chapter 7: Logistical Concerns: Before the Program Starts (Finding a Site; Getting Equipment Together; Recruiting Students); Logistics in the Field (Transportation; Food and Lodging; Field Facilities); Special Cases (International Field Schools; Commuter Field Schools);

Chapter 8: Balancing Teaching, Research, and Disciplinary Standards: Pressure Points (Maintaining Disciplinary Standards of Conduct; Field Schools as Annual “Money Makers”; Field Schools as the Only Research Outlets); Structural Suggestions for Those Seeking Balance; Working with Graduate Students and Undergraduates (Working with Graduate Students; Working with Undergraduate Students);

APPENDICES: RPA Guidelines and Standards for Archaeological Field Schools; Sample Safety Handout; A Summary of the Family Education Rights and Privacy Act (FERPA); Sample Archaeological Field School Participant Information Form; Sample Handout of What Students Should and Should Not Bring to a Field School on a Daily Basis; Sample Guideline Sheet for Students and the Media.

**DON HENSON (2012) *Doing Archaeology. A Subject Guide for Students.* London, New York: Routledge. XIX, 233 pages.**

**Table of Contents:**

INTRODUCTION;

**PART I: AN OVERVIEW OF ARCHAEOLOGY:**

- 1 What Is Archaeology?: Basic Definitions; A Few Words about Terminology; Archaeology’s Friends and Neighbours; Different Archaeologies; What Archaeology Is, and Is Not; Why Archaeology Matters;
- 2 How did Archaeology Begin?: Ancient Interest in the Past; The Medieval Interlude; Renaissance Rebirth; Archaeology Establishes; Archaeology Matures; Modern Archaeology;
- 3 Understanding Time: The Properties of Time; Changes in Material Culture; Explaining Change; Culture History; Cultural Evolution; Marxism; Other Approaches; Conclusion;

- 4 Understanding Place: Spatial Scales; Understanding Past Environments; Environmental Archaeology; Culture Contact; Settlements in the Landscape; Understanding Single Sites; On-Site Patterning; Personal and Family Spaces; Conclusion;
- 5 Understanding People: Who Are People?; New Archaeology; Marxism Again; Ethnography in Prehistory; Culture and Ethnicity; Gender and Identity; Agency and the Individual; Thinking Ourselves into the Past; Conclusion;
- 6 Where Archaeologists Work: National Organisations; Archaeological Field Units and Trust; Local Authorities; Museums; Universities and Colleges; Other Employment; Local Societies and Independents; Metal-Detecting Clubs, Community Projects; Who Are Archaeologists?;
- 7 Which Pasts Do We Study?: Palaeoanthropology; Prehistory; Ancient and Classical Archaeology; Medieval Archaeology; Archaeology of the Modern Era;

PART II: ARCHAEOLOGY IN ITS WIDER CONTEXT:

- 8 World Archaeology: International Agreements; Anti-Colonial Reactions in Archaeology; International Archaeology; British Archaeologists Abroad; What Makes British Archaeology Different?;
- 9 Archaeology's Value: Statements of Value; Why People Like the Past; The Past as Physical Object; The Role of Archaeologists, The Only Way Is Ethics;
- 10 Archaeology as Part of Heritage: Heritage Process; Archaeologists as Gatekeepers; The Hierarchy of Heritage;
- 11 Some Key Debates in Archaeology: Debates within Archaeology; Debates between Archaeologists and Others;
- 12 Activist Archaeology: Politics and Archaeology; Utilitarian Activism; Democratic Activism; Dogmatic Activism; Methodological Activism; Conclusion;

PART III: DO IT, STUDY IT, ENJOY IT:

- 13 How to Do Archaeology: Finding Sites; Recovering and Recording Evidence; Analysis; Dating; Interpretation; Storing Finds; Caring for and Protections Remains; Interpretation; Teaching; Public Engagement; Publication;
- 14 Studying Archaeology: A-Level Archaeology; Archaeology at University; Other Ways to Study; Archaeology on TV; Other Sources of Information about Archaeology; Archaeological Societies;
- 15 Archaeology Is Fun: Doing a Degree; Doing Research; Working in Archaeology; Teaching; Fieldwork; The Surreal, the Weird and the Frightening; The Rewards;

CONCLUSION;

RESOURCES: Key Organisations; Organisations Outside the United Kingdom; Useful Websites; Mobile Device Apps;

SELECTED READING.

**ANDREW REINHARD (2018) *Archaeogaming. An Introduction to Archaeology in and of Video Games*. New York, Oxford: Berghahn Books. XI, 224 pages.**

**Table of Contents:**

INTRODUCTION;

Chapter 1: Real-World Archaeogaming;

Chapter 2: Playing as Archaeologists;

Chapter 3: Video Games as Archaeological Sites;

Chapter 4: Material Culture of the Immaterial;

Conclusion;

APPENDIX: *No Man's Sky* Archaeological Survey (NMSAS) Code of Ethics;

GLOSSARY;

WORKS CITED;

GAMES CITED.

**KATHERINE M. ERDMAN (ED.) (2019) *Public Engagement and Education. Developing and Fostering Stewardship for an Archaeological Future*. New York, Oxford: Berghahn Books. XIII, 272 pages.**

**Table of Contents:**

INTRODUCTION: Opening a Dialog: Bringing Archaeology to the Public;

PART I: INSPIRING AND DEVELOPING AN INTEREST IN THE PAST:

Chapter 1: Schools and Public Archaeology: Igniting a Commitment to Heritage Preservation;

Chapter 2: Science and Social Studies Adventures: Using an Interdisciplinary Approach to Inspire School-Age Children to Become Knowledge Producers;

Chapter 3: Strengthening a Place-Based Curriculum through the Integration of Archaeology and Environmental Education; Appendix: Questionnaire Designed to Assess Student Understanding of the People and the Land Unit at School of the Wild;

Chapter 4: Engaging with the Past through Writing Accountable First-Person Creative Fiction: BACAB CAAS; Appendix: BACAB CAAS Final Draft Evaluation Form Used in North American Archaeology Class;

PART II: FOSTERING A DEEPER RESPECT FOR ARCHAEOLOGICAL HERITAGE:

Chapter 5: Archaeologists and the Pedagogy of Heritage: Preparing Graduate Students for Tomorrow's Interdisciplinary, Engaged Work in Heritage;

Chapter 6: Gathering Public Opinions about Archaeology and Heritage in Belize: A Drive toward Better Local Access and Programming;

Chapter 7: Archaeology for a Lifetime: Reaching Older Generations through Adult Education Programs; Appendix: Archaeological Heritage Survey 2015;

PART III: THE FUTURE OF ARCHAEOLOGY, EDUCATION, AND PRESERVATION:

Chapter 8: Best Practices in Archaeology Education: Successes, Shortcomings, and the Future;

Chapter 9: Navigating Heritage Stewardship in the Digital Age.

GLOSSARY.

**LARA HOMSEY-MESSER, TRACY MICHAUD, ANGELA LOCKARD REED & VICTORIA BOBO (2020) *Experiencing Archaeology. A Laboratory Manual of Classroom Activities, Demonstrations, and Minilabs for Introductory Archaeology. Student Edition.* Oxford: Berghahn Books. XI, 351 pages.<sup>10</sup>**

**Table of Contents:**

INTRODUCTION;

MODULE 1: Frameworks for Exploring Anthropological Archaeology: The Scientific Method (TSM) Cube; Cultural Bingo; Eclectic Challenge; A Symbol Worth a Thousand Words; Smokescreen: Hidden Symbols;

MODULE 2: Attributing Meaning to Artifacts and Formation of the Archaeological Record: Archaeological Chaos; Name That Thingamajig; Button Classification; The (Site) Matrix; Body Mapping;

MODULE 3: Frameworks for Measuring Time: Human Stratigraphy; Time Lines; Childhood Battleship Curves; Stirrup Bottle Seriation; Tree-Ring Matching; “Smarties” Metric Dating;

MODULE 4: Exploring Archaeological Specialties: Flaky Archaeology: Lithic Analysis; Pots and People: Ceramic Analysis; What’s for Dinner? Faunal Analysis; What’s for Dinner? Botanical Analysis; “Bone”-Afide Archaeology: Mortuary Analysis;

MODULE 5: Interpretation and Explanation in Archaeology: Campus Garbology: Processual Archaeology; Bringing Home the Bacon: Post-Processual Archaeology; Lend Me Your Hand: Post-Processual Archaeology; Optimally Foraging Money: Behavioral Ecology; Tree of Life: Human Ecology; Kinsman, Can You Spare a Penny? Economic Anthropology; Can You Dough It? Linguistic Anthropology;

MODULE 6: Archaeological Ethics and Stewardship: Draw-An-Archaeologist: Pre- and Posttest; Archaeopolitics: Who Owns the Past?; Common Ground: Glacial Archaeology, Ethics, and Climate Change; To List or Not to List; The Ethical Archaeologist.

<sup>10</sup> Electronic book: LARA HOMSEY-MESSER, TRACY MICHAUD, ANGELA LOCKARD REED & VICTORIA BOBO (2020) *Experiencing Archaeology. A Laboratory Manual of Classroom Activities, Demonstrations, and Minilabs for Introductory Archaeology. Instructor Edition.* Oxford: Berghahn Books. 196 pages.

## **SUGGESTED ONLINE BOOKS FOR TEACHERS IN ENGLISH (by the year of publication)**

**PETER L. DREWETT (1999) *Field Archaeology: An Introduction*. London: UCL Press, Taylor & Francis Group. 196 pages. [Online] Available from: [http://www.archaeology.ru/Download/Drewett/Drewett\\_1999\\_Field\\_Archaeology.pdf](http://www.archaeology.ru/Download/Drewett/Drewett_1999_Field_Archaeology.pdf). [Accessed: 25<sup>th</sup> January 2020].**

### **Table of Contents:**

- 1 INTRODUCTION: What Is Archaeology?; What Is Field Archaeology?; Who Does Field Archaeology?; Theoretical Basis of Field Archaeology; Project Management;
- 2 WHAT IS AN ARCHAEOLOGICAL SITE? HOW IS IT FORMED AND TRANSFORMED?: Primary and Secondary Uses; Rubbish and Accidental Loss; Burials; Abandonment of a Site; Natural Transformation Processes; Two Examples of Abandonment;
- 3 FINDING ARCHAEOLOGICAL SITES: Existing Knowledge; Documents; Aerial Photography; Ground Survey; Geophysical Survey; Chemical Survey; Accidental Discovery;
- 4 RECORDING ARCHAEOLOGICAL SITES: Written Description; Archaeological Surveying; Photography;
- 5 PLANNING THE EXCAVATION: Permission, Funding and the Law; Site Safety; Staff, Equipment and Logistics; Approaches to Excavation; Levels of Recovery;
- 6 DIGGING THE SITE: EXCAVATION; Recurrent Types of Context and Their Excavation; Sites without Features; Artefacts and Ecofacts, Their Recovery and Treatment; Matrices, Phasing and Dating Sites; Excavation and the Public;
- 7 RECODING ARCHAEOLOGICAL EXCAVATIONS: The Written Record; The Drawn Record; The Photographic Record; The Finds Record;
- 8 POST-FIELDWORK PLANNING, PROCESSING AND FINDS ANALYSIS: Post-Fieldwork Planning; Finds Analysis (Pottery, Stone, Metals, Organic Artefacts); Finds Analysis: Ecofacts (Bones, Shells, Seeds and Other Plant Remains); Finds Analysis: Environmental Samples (Pollen Analysis, Land Snails, Soils and Sediments); Other Environmental Analysis;
- 9 INTERPRETING THE EVIDENCE: Interpretating the Site's Environment; Interpretation of the Household and Its Activity Areas; Interpretation of the Community and Its Activity Areas; Interpretation of How People Lived;
- 10 PUBLISHING THE REPORT: Archaeological Illustration; Writing a Report; Getting a Report Published.



**TIMOTHY D. OWEN & JODY N. STEELE (2001) *Digging Up the Past. Archaeology for Kids*. South Australia: Southern Archaeology. 41 pages.**

[Online] Available from:

[https://www.researchgate.net/publication/274375974\\_Archaeology\\_for\\_Kids](https://www.researchgate.net/publication/274375974_Archaeology_for_Kids)  
or

[https://www.researchgate.net/profile/Timothy\\_Owen/publication/274375974\\_Archaeology\\_for\\_Kids/links/551cc00b0cf2909047bcad5b/Archaeology-for-Kids.pdf?origin=publication\\_detail](https://www.researchgate.net/profile/Timothy_Owen/publication/274375974_Archaeology_for_Kids/links/551cc00b0cf2909047bcad5b/Archaeology-for-Kids.pdf?origin=publication_detail). [Accessed: 25<sup>th</sup> January 2020].

**Table of Contents:**

Introduction to Archaeology;  
The Archaeology Jigsaw;  
Indigenous Archaeology;  
Historical Archaeology;  
Maritime Archaeology;  
Historical Indigenous Maritime;  
The Tools of an Archaeologist;  
Lunch Time on Site;  
Site Formation;  
Stratigraphy;  
Timelines (Houses, Clothing);  
Dating... Its All in the Coins;  
Stylistic Dating;  
Archaeology Word Search;  
Artefact Analysis;  
A Museum Display;  
Archaeology Crossword Challenge;  
Glossary Terms;  
Answers.

**JOSÉ GÓMEZ DÍAZ (COORD.) (2006) *Scientific Literacy at School. An Inquiry about Archaeology in the Classroom*. Project: 2016-1-ES01-KA201-025282.**

Co-founded by the Erasmus+ Programme of the European Union. 132 pages.

[Online] Available from: <http://www.csicenlaescuela.csic.es/scilit/pdf/guides/scilit-an-inquiry-about-archaeology.pdf>. [Accessed: 25<sup>th</sup> January 2020].

**Table of Contents:**

INTRODUCTION;  
FIRST PART: ARCHAEOLOGY IN THE CLASSROOM: SCIENTIFIC CONTENT AND METHODOLOGY:

- 1 First Step: Stimulate Interest in Archaeology and Dispel Myths;
- 2 Buried Archives: The Concept of the Archaeological Record;

- 3 The Importance of Context;
  - 4 The Surface Archaeological Record: Looking at the Ground;
  - 5 The Value of the Past;
- SECOND PART: FROM TRAINING TO THE CLASSROOM: PRACTICAL APPLICATION:
- 1 Introduction;
  - 2 Template to Be Used in All Documents Describing Classroom Activities;
  - 3 Results and Conclusions from the Classroom Experiences;
  - 4 Research Carried out by Partners.

**JANE BALME & ALISTAIR PATERSON (EDS.) (2006) *Archaeology in Practice: A Student Guide to Archaeological Analyses*. Oxford: Blackwell. XXVI, 438 pages. [Online] Available from: <https://arqueologiaeprehistoria.files.wordpress.com/2016/05/balme-paterson-2006-archaeology-in-practice-a-student-guide-to-archaeological-analyses.pdf>. [Accessed: 4<sup>th</sup> February 2020].**

**Table of Contents:**

- 1 Finding Sites;
- 2 Consulting Stakeholders;
- 3 Rock-Art;
- 4 Stratigraphy;
- 5 Absolute Dating;
- 6 An Introduction to Stone Artifact Analysis;
- 7 Residues and Usewear;
- 8 Ceramics;
- 9 Animal Bones;
- 10 Plant Remains;
- 11 Molluscs and Other Shells;
- 12 Sediments;
- 13 Artifacts to the Modern World;
- 14 Historical Sources;
- 15 Producing the Record.

**JOHN H. JAMESON & SHERENE BAUGHER (EDS.) (2007) *Past Meets Present: Archaeologists Partnering with Museum Curators, Teachers, and Community Groups*. New York: Springer Science & Business Media. 465 pages. [Online] Available from: <https://link.springer.com/book/10.1007/978-0-387-48216-3#toc>. [Accessed: 27<sup>th</sup> January 2020].**

**Table of Contents:****PART I: HISTORIC SITES AND MUSEUMS:**

Public Interpretation, Outreach, and Partnering: An Introduction;

Reaching Out to the Bureaucracy and Beyond: Archaeology at Louisbourg and Parks Canada;

When the Digging Is Over: Some Observations on Methods of Interpreting Archaeological Sites for the Public;

The Whole Site Is the Artifact: Interpreting the St. John's Site, St. Mary's City, Maryland;

The Archaeology of Conviction: Public Archaeology at Port Arthur Historic Site;

**PART II: ETHNIC COMMUNITIES:**

Engaging Local Communities in Archaeology: Observations from a Maya Site in Yucatán, México;

The Other from Within: A Commentary;

Archaeological Outreach and Indigenous Communities: A Personal Commentary;

New Ways of Looking at the Past: Archaeological Education at the Houston Museum of Natural Science;

Building Bridges Through Public Anthropology in the Haudenosaunee Homeland; To Hold It in My Hand;

**PART III: UNIVERSITIES:**

Outport: Community Archaeology in Newfoundland;

Service-Learning: Partnering with the Public as a Component of College Archaeology Courses;

Partners in Preservation: The Binghamton University Community Archaeology Program;

Archaeology to the Lay Public in Brazil: Three Experiences;

**PART IV: PUBLIC SCHOOLS:**

Archaeology for Education Needs: An Archaeologist and an Educator Discuss Archaeology in the Baltimore Country Public Schools;

Audience, Situation, Style: Strategies for Formal and Informal Archaeological Outreach Programs;

Adventures in Archaeology at the Ontario Heritage Trust;

Excavating the Past: 20 Years of Archaeology with Long Island, NY Students;

Transportation Collections: On the Road to Public Education;

**PART V: PUBLIC AGENCIES AND PROFESSIONAL ORGANIZATIONS:**

Protect and Present—Parks Canada and Public Archaeology in Atlantic Canada;

Making Connections through Archaeology: Partnering with Communities and Teachers in the National Park Service;

Engaging the Public: Parks Canada CRM Policy and Archaeological Presentation;

Archaeology Outreach: It Takes A Community;

Smart Planning and Innovative Public Outreach: The Quintessential Mix for the Future of Archaeology;

Beyond Famous Men and Women: Interpreting Historic Burial Grounds and Cemeteries;  
Unlocking the Past: A Society for Historical Archaeology Public Awareness and Education Project.

**BEYOND ARTIFACTS: TEACHING ARCHAEOLOGY IN THE CLASSROOM (2008) Florida Public Archaeology Network. 102 pages. [Online] Available from: <http://flpublicarchaeology.org/resources/2008v2BA.pdf>. [Accessed: 25<sup>th</sup> January 2020].**

**Table of Contents:**

INTRODUCTION;

ACTIVITIES:

General Archaeology (1 Class Period): Cookie Excavation; Archaeology Jeopardy; Archaeology and Pseudoscience; Ancient Graffiti; Archaeology and the Media; Archaeology Goes to the Movies;

Prehistoric Archaeology (1 Class Period): Archaeology Crossword Relay Race; What's Missing?; Peanut Butter and Jelly Archaeology; Florida Unearthed Board Construction; Atlatl Antics;

Historic Archaeology (1-2 Class Periods): Arcadia Sample Lesson: Introduction to Archaeology; Arcadia Sample Lesson: Invisible People; Arcadia Sample Lesson: Predictive Modelling and the Natural environment;

Underwater Archaeology (1 Class Period): Build a Boat; You Sunk My Battleship;

Integrated (Multiple Class Periods/Multiple Disciplines): Enriching Traditional Subjects through the Teaching of Archaeology (Graded 6-8);

CURRICULUM (FRAMEWORK):

9-Week Archaeology Class for 6th Graders: Introduction to Archaeology for 6th Graders;

Semester Archaeology Class for High School: Introduction to Archaeology Curriculum for High School;

IN-SERVICE TEACHER TRAINING EXAMPLE:

Archaeology in the Classroom: Introduction; Schedule; Introduction to Archaeology PowerPoint; Introduction to Underwater Archaeology PowerPoint; Northwest Florida Archaeology and History Timeline; Classroom Activities;

RESOURCES:

Activity Guides and Curricula; Suggested Books; Suggested Magazines; Suggested Internet Sites; Archaeology Education Resources;

CONTACT INFORMATION.

**A PRACTICAL GUIDE TO RECORDING ARCHAEOLOGICAL SITES (2011)**  
**Edinburgh: The Royal Commission on the Ancient and Historical Monuments of Scotland. 78 pages. [Online] Available from: <https://swaag.org/pdf/SRP%20Site%20Recording.pdf>**

or

**<https://webarchive.nrscotland.gov.uk/20180403132145/http://www.scotlandsruralpast.org.uk/images/pdfs/SRP%20Manual%20single%20page.pdf>**  
**[Accessed: 25<sup>th</sup> January 2020].**

**Table of Contents:**

INTRODUCTION;  
 Getting Started;  
 Recording Your Site;  
 Adding Measurements and Details;  
 Creating Scaled Drawings;  
 Photographing Your Site;  
 Writing about Your Site;  
 Sharing Your Work;  
 USEFUL SOURCES OF INFORMATION.

**ROSA LASAPONARA & NICOLA MASINI (EDS.) (2012) *Satellite Remote Sensing: A New Tool for Archaeology*. Dordrecht, Heidelberg, London, New York: Springer Science & Business Media. XVIII, 364 pages. [Online] Available from: <https://link.springer.com/book/10.1007%2F978-90-481-8801-7>. [Accessed: 23<sup>rd</sup> March 2020].**

**Table of Contents:**

PART I: OPTICAL SATELLITE REMOTE SENSING IN ARCHAEOLOGY: AN OVERVIEW:

- 1 Remote Sensing in Archaeology: From Visual Data Interpretation to Digital Data Manipulation;
- 2 Image Enhancement, Feature Extraction and Geospatial Analysis in an Archaeological Perspective;
- 3 Pattern Recognition and Classification Using VHR Data for Archaeological Research;
- 4 Pan-Sharpener Techniques to Enhance Archaeological Marks: An Overview;

PART II: SATELLITE REMOTE SENSING FOR CULTURAL HERITAGE DOCUMENTATION AND MANAGEMENT:

- 5 Sensing and Integration with Other Geomatic Techniques in Archaeology;
- 6 Integrated Methodologies for the Archaeological Map of an Ancient City and Its Territory: The Case of Hierapolis in Phrygia;
- 7 NASA Remote Sensing and Archaeology;
- 8 Satellite-Based Monitoring of Archaeological Looting in Peru;

PART III: PALAEOENVIRONMENT AND ARCHAEOLOGY: THE CONTRIBUTION OF SATELLITE OBSERVATION:

- 9 Uncovering Angkor: Integrated Remote Sensing Applications in the Archaeology of Early Cambodia;
- 10 Remote Sensing Study of the Ancient Jabali Silver Mines (Yemen): From Past to Present;
- 11 Irrigation Is Forever: A Study of the Post-Destruction Movement of Water Across the Ancient Site of Sri Ksetra, Central Burma;
- 12 Following the Ancient Nasca Puquios from Space;
- 13 High-Resolution Satellite Imagery and the Detection of Buried Archaeological Features in Ploughed Landscapes;
- 14 Integrated Remote Sensing Approach in Cahuachi (Peru): Studies and Results of the ITACA Mission (2007-2010).

**WHITNEY LYTLE & ANNE VIEYRA (2012) *Archaeology Tools for Teaching. Legacy: Hands on the Past. Teacher Packet and Resource Guide.* UTSA Center for Archaeological Research. 103 pages. [Online] Available from: <http://car.utsa.edu/CARLegacy/LegacyResources/TeachersResourcePacket.pdf>. [Accessed: 25<sup>th</sup> January 2020].**

**Table of Contents:**

- INTRODUCTION (Archaeology in the Classroom; Archaeology Do's and Don'ts; Archaeology as a Career Path);
- VOCABULARY: 1st–3rd Grade Vocabulary; 1st–3rd Grade Vocabulary Worksheet; 4th–5th Grade Vocabulary; 4th–5th Grade Vocabulary Worksheet; 6th–8th Grade Vocabulary; 6th–8th Grade Vocabulary Worksheet; 9th–12th Grade Vocabulary, 9th–12th Grade Vocabulary Worksheet;
- SPECIAL LESSONS: Prehistory of the San Antonio Area; Spanish Colonial Texas; Post Colonial Texas; Geoarchaeology;
- ACTIVITIES GUIDES: “Artifact” Button Sorting; Building a Taxonomy; Classic Greek Theater; Comparative Cultures: Native American Art; Cookie Excavation; Corn Husk Dolls; Cultural Universals; Geology and Limestone Formations; Hieroglyphics; Iconography: Symbolism in Culture; Lay Out and Archaeological Unit and Artifact Mapping; Legend of the Bluebonnet; Measurement Conversions; Old Word/New World: The Columbian Exchange; San Antonio Mission Ceramics; Stratigraphy (2 Options);
- ADDITIONAL RESOURCES: Texas Archaeology Lesson Plans; Field Schools in Texas; Archaeology Research Centers in Texas; Professional Organizations; General Lesson Plans and Activities; Archaeology Career Information; General Interest in Archaeology; Texas Archaeology; Southwestern Archaeology; Mayan Archaeology; Marine Archaeology; Native Americans; Classical Archaeology; Video/Multimedia; Magazines/Periodicals; Books.

**ARCHAEOLOGY IN THE CLASSROOM. PRESERVATION THROUGH EDUCATION (2013)** Limerick Education Centre & Department of Arts, Heritage and the Gaeltacht. [Online] Available from: <http://www.itsabouttime.ie/primary/welcome.pdf>. [Accessed: 25<sup>th</sup> January 2020].

**Table of Contents:**

INTRODUCTION;  
 Archaeology of the Classroom: What Will Survive?;  
 Timeline Ireland;  
 Excavation-In-A-Box;  
 Stone Age Hunters;  
 Pots and Pottery;  
 Making Monuments;  
 Recording Old Buildings;  
 Let's Look at Old Photographs;  
 Streetscape;  
 Exploring Old Maps;  
 Fieldtrip: The Outdoor Classroom;  
 My Own Place;  
 RESOURCES.

**GABRIEL MOSHENSKA (ED.) (2017) *Key Concepts in Public Archaeology*.** London: UCL Press. 238 pages. [Online] Available from: <https://discovery.ucl.ac.uk/id/eprint/1574530/>. [Accessed: 25<sup>th</sup> January 2020].

**Table of Contents:**

- 1 Introduction: Public Archaeology as Practice and Scholarship where Archaeology Meets the World;
- 2 Community Archaeology;
- 3 Economics in Public Archaeology;
- 4 Archaeology and Education;
- 5 Digital Media in Public Archaeology;
- 6 Presenting Archaeological Sites to the Public;
- 7 The Archaeological Profession and Human Rights;
- 8 The Treasure Act and Portable Antiquities Scheme in England and Wales;
- 9 Alternative Archaeologies;
- 10 Commercial Archaeology in the UK: Public Interest, Benefit and Engagement;
- 11 Archaeologists in Popular Culture;
- 12 Archaeology and Nationalism;
- 13 The Market for Ancient Art.

**THE ENCYCLOPEDIA OF ARCHAEOLOGICAL SCIENCES (2018-)**  
**Hoboken (NJ): J. Wiley and Sons. [Online] Available from: <https://onlinelibrary.wiley.com/doi/book/10.1002/9781119188230>. [Accessed: 23<sup>rd</sup> March 2020].**

**Table of Contents (topics):**

Bioarchaeology;  
Conservation;  
Constructing Time;  
Environment;  
Field Methods;  
Foundations;  
Heritage;  
Materials Analysis;  
Mathematics and Data;  
Theory and Practice;  
Visualization.



## **SUGGESTED WEBSITES** **(Accessed: 5<sup>th</sup> May 2020)**

Antiquity. A Review of World Archaeology: <http://antiquity.ac.uk>

Archaeological Institute of America: <http://www.archaeological.org/>

Archaeology (Magazine): <http://www.archaeology.org/>

Archaeology in Europe: <http://archeurope.com/>

British Archaeological Association: <https://thebaa.org/>

Council for British Archaeology. Archaeology for All: <https://new.archaeologyuk.org/>

European Association of Archaeologists: <https://www.e-a-a.org/>

EXARC.net: <https://exarc.net/bibliography>

Great Archaeology: <https://www.greatarchaeology.com/>

Society for American Archaeology: <http://www.saa.org/>

Society for Historical Archaeology: <http://www.sha.org/>

The Archaeology Channel: <https://www.archaeologychannel.org/>

ThoughtCo. Archaeology: <https://www.thoughtco.com/archaeology-4133504>

Young Archaeologist's Club: <https://www.yac-uk.org/>



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## NOTES ON CONTRIBUTORS

**Dr Eleni Apostolidou** is an Assistant Professor of History Didactics at the Primary School Education Department, University at Ioannina in Greece. She studied Classics and History in Athens, received a MA in International Studies from the University of Leeds in England and completed her doctoral research, ‘The Historical Consciousness of 15-year-old Students in Greece’, at the Institute of Education of London, between the years 2002-2006. Her main interests are Teaching History in the Primary and Secondary School, Historical Consciousness, Historical Culture, History of Historiography, Theory of History, Public History, Teaching History in Museums. She has contributed to the *International Journal of History Learning, Teaching and Research*, to the *Yearbook of the International Society of History Didactics*, to the *Review of History Education, MuseumEdu*, while she is a co-author of *Public History Weekly*.

**Zorica Babić** is employed as a Senior Museum Pedagogue at the Archaeological Museum in Zagreb in Croatia, where she is also the head of the Pedagogical Department. She is an Archaeologist and History teacher. Through ten years of work, she has published several educational publications [Through the Neanderthal with Arhimiš (2011), Arhimiš in the Neolithic (2013), Information Guide for the Blind and Visually Impaired (2013), etc.], has authored several exhibitions [Vehicle of the Past (2010), From History Textbooks (2011), Aquae Lasae – Varaždinske Toplice (2012), Clicking on Hvar – 2400 Stari Grad Field (2016), Artefact + Design = Prototype (2019)], author and director of several projects [Museums Talkers (2013), Museum in Visit (2013-2019), etc.]. She also engages research about audience as well as the relationship between schools and museums, teachers and museum educators. On the trail of her research, she has published several works to date: Vehicle of the Past (2010), Popularization of Exhibition Museum Material through Educational Workshops ‘We Write and Read Hieroglyphics’ – Popular Workshop of the Archaeological Museum in Zagreb (2013), Archaeological Heritage in Teaching (2018), Teaching History at the Archaeological Museum in Zagreb or Something Else? A Review of the New Curriculum (2020), etc.

**Dr Isabel Barca** is a Senior Researcher at CITCEM, University of Porto in Portugal. She was a Researcher at CIED and an Associate Professor for History and Social Sciences Education at the University of Minho in Portugal, and Visiting Professor at the Federal University of Paraná in Curitiba in Brazil. Her recent publications include articles with Saíz [e.g. National Narratives of Spanish and Portuguese Students (2019)]; book chapters [e.g. *A controvérsia em História e em Educação Histórica* (2019)]; book editions with Nakou [e.g. *Contemporary Public Debates over History Education* (2010)].

**Dr Denise Bantrot** is Co-Director of the African Association for History Education (AAHE-Afrika) and an Extraordinary Lecturer in History Education at the University of Pretoria in South Africa. She has PhD in History. Currently, she is also a Research Fellow in the History Department at the University of Leuven in Belgium and a visiting Assistant Professor in the Department of History and Social Sciences at the *Institut Supérieur Pédagogique de Goma* in eastern Congo. Her research combines interests in history education, memory politics and identity formation, and primarily focuses on post-colonial and post-conflict societies in Africa, including Rwanda, Burundi, DR Congo, South Africa, Zimbabwe, Liberia and Sierra Leone.

**Špela Bezjak** is an Early-Stage Researcher and PhD student in History Didactics at the Faculty of Arts, University of Ljubljana in Slovenia. Her PhD thesis will be on 'Material Sources in the Teaching of History in Slovenian Schools between 1945 and 2020'. Her research interests include the role of material sources in history books and curricula, the use of material sources in history teaching in elementary and secondary schools, research into active approaches to history teaching for pupils with disabilities and gifted pupils, etc. She participates in international conferences and other professional training courses. Together with her mentor, Professor Danijela Trškan, PhD, she co-leads a project funded by the Slovenian National Commission for UNESCO: The Role of Archaeological Heritage in History Lessons in Elementary and Secondary Schools (2019-2022).

**Dr Hilary Cooper** is an Emeritus Professor of History and Pedagogy at the University of Cumbria in England. She taught for many years in London Primary Schools. Her PhD, *Young Children's Thinking in History*, was based on data collected from teaching her classes. Her research interests are constructivist theories related to young children's thinking in history. Her most recent books are: *Writing History 7-11: Historical Writing in Different Genres* (2014), *Teaching History Creatively* (2013, 2/e 2017) and *History 5-11: A Guide for Teachers* (2006, 3/e 2018) all published by Routledge. She has published widely, including books and academic papers written in Portuguese, Spanish and Turkish. *Professional Studies in Primary Education* (2011, 3/e 2017, London: Sage) draws on her experience as Director of Professional Studies at the Lancaster University and later at as a Professor at the University of Cumbria. She is most interested in international research into history education. She has been co-editor, with Dr Jon Nichol, of *The International Journal of Historical, Teaching, Learning and Research*, since its inception in 2000. It is currently published as an open access journal by the *History Education Research Journal*, by University College London Press (<https://www.uclpress.co.uk/pages/journals>). She has been co-organiser, with Dr Jon Nichol, of the History Educational Research Network since its creation in 2004. Participants from every continent at its annual conferences, held in places as diverse as Brazil, North America, South Africa, Turkey and Russia as well as in many countries across Europe.

**Elena Cozma** is a young Archaeologist and a PhD student in Forensic Archaeology at the ‘Alexandru Ioan Cuza’ University from Iași, Faculty of History in Romania. She works at the City Hall of Iași as a specialty inspector in ‘Relations with Civil Society’ Office. She is involved in organizing different cultural events like National Symposium ‘Cultural Heritage of Iași District: evidence, preservation and reevaluation.’ Till 2018 she was responsible for organizing the theme of Municipal Museum of Iași. She has been involved in numerous projects on heritage protection since 2011. Her MA thesis was on historical monuments dedicated to heroes of WWI from Vrancea District.

**Dr Marjan de Groot-Reuvekamp** is a Lecturer of History Education and Didactics at the Fontys University for Applied Sciences, School for Child Studies and Education in 's-Hertogenbosch in the Netherlands. Her work consists mainly of providing history modules and supervising graduate research. She is also a member of the committee for recalibration of the Dutch Canon for history and culture. Her research focuses on history teaching in primary school. Recent scientific publications in peer-reviewed journals include: De Groot-Reuvekamp, M., Ros, A. & Van Boxtel, C. (2019) ‘Everything Was Black and White...’ Primary School Pupils’ Naive Reasoning While Situating Historical Phenomena in Time. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 47, pp. 18-33; De Groot-Reuvekamp, M., Ros, A. & Van Boxtel, C. (2018) A Successful Professional Development Programme in History: What Matters? *Teaching and Teacher Education*, 75, pp. 290-301; De Groot-Reuvekamp, M., Ros, A. & Van Boxtel, C. (2017) Improving Elementary School Students’ Understanding of Historical Time: Effects of Teaching with ‘Timewise’. *Theory & Research in Social Education*, 46 (1), pp. 35-67.

**Dr Marc-André Éthier** is a Professor of History Didactics at the ‘Université de Montréal’ in Québec in Canada. He generally collaborates with Dr David Lefrançois. The major research councils in Québec and Canada have funded his work on teaching materials and curricula. With Lefrançois, he is conducting a research on how students use teaching materials (including textbooks, and video games) and the effects of this use on the development of agency, historical thinking, and critical thinking. He serves as a spokesperson of the *Association québécoise pour la didactique de l’histoire et de la géographie (AQDHG)*, and is an editor-in-chief of the *Revue des sciences de l’éducation*. He has co-edited a dozen academic books, including *Faire aimer et apprendre l’histoire et la géographie au primaire et au secondaire* (2014), and *Mondes profanes: Enseignement, histoire, fiction* (2018).

**Dr Tim Huijgen** is an Assistant Professor and Teacher Educator at the University of Groningen in the Netherlands. He is Coordinator of the Gamma Department (History, Geography, Economics, Latin/Greek, Philosophy, Civics, and Religious Studies) of the Department of Teacher Education. He is also a member of the Dutch Interuniversity Center for Educational Research (ICO). His research focuses on the teaching and learning of secondary school students. Recent scientific publications in peer-reviewed journals include: Huijgen, T., Holthuis, P., Van Boxtel, C., Van de Grift, W. & Suhre, C. (2019) Students' Historical Contextualization and the Cold War. *British Journal of Educational Studies*, 67, pp. 439-468; Huijgen, T., Holthuis, P., Van Boxtel, C. & Van de Grift, W. (2019) Promoting Historical Contextualisation in Classrooms: An Observational Study. *Educational Studies*, 45, pp. 456-479, and Huijgen, T., Van de Grift, W., Van Boxtel, C. & Holthuis, P. (2018) Promoting Historical Contextualization: The Development and Testing of a Pedagogy. *Journal of Curriculum Studies*, 50, pp. 410-434.

**Dr Kostas Kasvikis** is an Assistant Professor of History Didactics and Culture Education in the Department of Primary Education of Florina, University of Western Macedonia in Greece. He is also coordinator of the 'Museum Education' module of the Interuniversity Postgraduate Programme 'Museology-Cultural Management', from the Aristotle University of Thessaloniki/University of Western Macedonia. His research interests and teaching topics include: history didactics, archaeological education, museum education, textbook research, and public archaeology. He has co-authored a book and published several chapters in edited volumes and papers in journals and conference proceedings. He has participated in three European-funded programmes related to public archaeology and cultural heritage management and has designed educational activities and material for Greek archaeological sites and museums.

**Dr Georgia Kouser** teaches History Didactics at the Department of Pre-School Education at the University of Thessaly in Greece and in secondary education as well. She completed both her BA in History and Archaeology and her MA in Prehistoric Archaeology in the Aristotle University of Thessaloniki. She also studied Conservation of Antiquities and Works of Art. In May 2015, she argued her PhD thesis 'Historical Education in the School and in the Museum' at the University of Thessaly. Her research interests include history didactics, local and oral history and the use of the past in formal and informal education venues. She is the author of the following publications: *The Auschwitz/Birkenau Memorial and Museum as a Source of Knowledge and a Trigger for Empathy about the Holocaust* (2018), *Antiquity Re-Visited: Challenges and Opportunities in the Creation of the New Greek History Curriculum* (2019), *Historical Thinking, School and Museum. From Research to Educational Applications* (2019), *Family Stories and Global (Hi)stories* (2020), etc.

**Dr David Lefrançois** is a Professor of Education Sciences at the ‘Université du Québec en Outaouais’ in Canada. His research and publications examine school programme content and the methods used to teach and evaluate learning in elementary and secondary social sciences. More precisely, his work focuses on three axes: the critical analysis of the Québec curricula in social studies; the development of agency and critical thinking in history, citizenship education and financial education; the practice of democratic deliberation in the classrooms. He participates as a researcher in the *Centre de recherche interuniversitaire sur la formation et la profession enseignante (CRIFPE)*, the *Observatoire sur la formation à la diversité et l'équité (OFDE)* and the partnership *Accès au droit et à la justice (ADAJ)*, through the legal education project, in collaboration with Dr Marc-André Éthier. He is also a director of the learned journal *Revue des sciences de l'éducation*.

**Dr Christian Mathis** is a Professor of History Education at the Zurich University of Teacher Education (PHZH) in Switzerland. His research interests include students' conceptions on history, teacher students' epistemic cognition in history, archaeological learning, Holocaust education. He is the author of the following publications: ‘The Revolution Is Not Over Yet’. German Speaking Ninth Graders' Conceptions of the French Revolution (2016); ...They Locked Them Up in Houses and Let Gas in. Swiss Primary School Pupils' Conceptions of the Holocaust (2018); Mathis, C., Favre, P. & Keller, P. M. (2017) *Ausflug in die Vergangenheit – Sachlernen im Nahraum. Didaktische Grundlagen zur Reihe Ausflug in die Vergangenheit*; Mathis, C. & Gollin, K. (2018) How Swiss Primary Students Interpret a National Monument; Mathis, C. & Parkes, R. J. (2020) Historical Thinking, Epistemic Cognition, and History Teacher Education.

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