

METHODOLOGY & ARCHAEOMETRY

7agreb 3rd - 4th December 2020

O S THOMAL S C I E N T I F I C

METHODOLOGY & ARCHAEOMETRY

Zagreb, 2nd - 3rd December 2021











PROCEEDINGS

FROM THE 8TH AND 9TH SCIENTIFIC CONFERENCE METHODOLOGY AND ARCHAEOMETRY

IMPRESSUM

PUBLISHER

Faculty of Humanities and Social Sciences, University of Zagreb

FOR THE PUBLISHER

Domagoj Tončinić

EDITOR

Ina Miloglav

Faculty of Humanities and Social Sciences, University of Zagreb

EDITORIAL BOARD

Predrag Novaković

Faculty of Arts, University of Ljubljana, Slovenia

Dimitrij Mlekuž

Faculty of Arts, University of Ljubljana

& Centre for preventive archaeology, Ljubljana, Slovenia

Michela Spataro

The British Museum, London, United Kingdom

Duska Urem-Kotsou

Democritus University of Thrace, Komotini, Greece

Jasna Vuković

Faculty of Philosophy, University of Belgrade, Serbia

Rajna Šošić Klindžić

Faculty of Humanities and Social Sciences, University of Zagreb, Croatia

Jacqueline Balen

Archaeological Museum in Zagreb, Croatia

Michael Doneus

Department of Prehistoric and Historical Archaeology, University of Vienna,

& LBI for Archaeological Prospection and Virtual Archaeology, Vienna, Austria

Marta Čović Mileusnić

Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Croatia

DESIGN & DTP

Srećko Škrinjarić

All papers were reviewed in the peer review process in which the identity of both reviewers and authors, as well as their institutions, are respectfully concealed from both parties.

DOI

https://doi.org/10.17234/METARH.2022

ISSN 2718-2916

Faculty of Humanities and Social Sciences of the University of Zagreb

URL

https://openbooks.ffzg.unizg.hr/index.php/FFpress/catalog/series/MetArh http://www.ffzg.unizg.hr/metarh/

Publishing of this e-book is supported by

Ministry of Science and Education of the Republic of Croatia



This publication is licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International licence (https://creativecommons.org/licenses/by-nc-nd/4.0/) which allows others to share, copy and redistribute the publication in any medium or format, as long as they give appropriate credit, provide a link to the license, and indicate if changes were made. The content of this publication may not be used for commercial purposes. If the publication is remixed, transformed, or built upon, the modified material may not be distributed.

METHODOLOGY & ARCHAEOMETRY

Zagreb, 3rd – 4th December 2020

THE CONFERENCE

METHODOLOGY & ARCHAEOMETRY

Zagreb, 2nd – 3rd December 2021











PROCEEDINGS

FROM THE 8TH AND 9TH SCIENTIFIC CONFERENCE METHODOLOGY AND ARCHAEOMETRY

Ina Miloglav

Content

07	Preface
09	Ivor Kranjec, Jelena Behaim New Considerations on Spatial Analysis in the Research of Early Medieval Landscape: the Case Study of Bale region in Istria (Croatia)
25	Andrej Janeš The use of archaeological structural survey and the analysis of standing structures on mediaeval castles
37	Miroslav Vuković, Mirjana Sanader, Ina Miloglav, Domagoj Tončinić, Joško Zaninović, Vinka Matijević, Mirna Cvetko, Domagoj Bužanić Archaeological surveying in karstic fields: the site of Balina Glavica
47	Igor Medarić Project MagIstra – magnetic mapping of archaeological structures in soils on flysch: case studies from Slovenian Istria
65	Dinko Tresić Pavičić, Željka Bedić, Filomena Sirovica Skeletor: system for recording and analysing articulated human skeletal remains
75	Miroslav Marić, Nemanja Marković, Jelena Bulatović, Ivana Pantović, Regional Absolute Chronologies of the Late Neolithic in Serbia. The case study of At near Vršac
93	Mario Novak, Dragana Rajković The Late Neolithic human burials from Kotlina – Szuzai Hegy, Baranja: the first results of the anthropological analysis
107	Rajna Šošić Klindžić "If its quacks like a duck" – interpretation of Late Neolithic site Gorjani Kremenjača, Eastern Croatia
121	Katarina Šprem, Uroš Barudžija Micropetrographic analysis as a tool for the determination of limestone sources in Istria - applications and limitations
131	Petra Nikšić Volume density and spatial analysis of a Late Antique settlement – preliminary results
143	Mykhailo Klymovych Few experiments of log-boats making
153	Bojana Plemić, Jelena Anđelković Grašar We do need an education: youth participation programmes as a method in archaeology dissemination

We do need an education: youth participation programmes as a method in archaeology dissemination

Bojana Plemić, Jelena Anđelković Grašar

https://doi.org/10.17234/METARH.2022.13

Bojana Plemić Academy of Applied Studies, Belgrade Bulevar Zorana Đinđića 152a RS – 11070 Belgrade bojana.plemic@yahoo.com

> Jelena Anđelković Grašar Institute of Archaeology, Belgrade Knez Mihailova 35/IV RS – 11000 Belgrade jelenandjelkovic@gmail.com

Community archaeology, as a part of public archaeology, is primarily based on the need to include diverse subjects in the interpretation of the past, implying the mutual education of archaeological heritage professionals and the community itself. The focus of such an approach is particularly the younger population, targeted through schools and teachers, as an involvement priority. Though we cannot talk about the systematic development of the community archaeology in Serbia, there have been some lasting benefits achieved through participatory programmes targeted at the education of youth. They could serve as representative models for the development of a suitable methodology that we have recognized as a possible addition to the archaeology dissemination, which is missing in the general education in Serbia. On this occasion, we will point out some practices conducted in the Viminacium archaeological park, through children's camps and workshops, the Young Romans programme and tourism student internships. Thanks to maintaining the continuous process of their realization and widening the scope of partners` network as well as insisting on permanent cooperation with the representatives of the official formal education, the benefits of this methodology can be raised to the national level. Thus the knowledge about archaeology and the values of cultural heritage can be implemented into the formal educational system from the earliest age to student days, which would ensure that those with appropriate interest may choose the professions related to heritage more easily. In addition, the whole generations may be taught to actively co-exist with their cultural heritage knowing how to preserve it in a more responsible way.

Keywords: public (community) archaeology, participation, dissemination, education, Viminacium

Introduction

n the scientific literature the term public archaeology dates back to 1972 when it was acknowledged that the essence of the concept involves the necessity of archaeological heritage conservation for the sake of the general public's need and right to learn about heritage (McGimsey 1972: 5). Besides, this led to the standpoint that archaeology cannot remain ex-

clusively in the academic field, nor can it be separated from external interests and the contemporary society permeated by various cultural, economic and political influences (Matsuda 2004: 67). However, until now the numerous definitions specified by researchers have not been completely aligned and unified in terms of the modality of public archaeology. According to some authors

public archaeology comprises any archaeological activity which achieves interaction with the general public (Schadla-Hall 1999: 147), but it can also be viewed as a sub-discipline which deals with problems that arise when archaeology is transferred to the real world abounding in economic conflicts and political combat, which makes it an object of ethical consideration (Ascherson 2000: 2). Although these approaches do not define the phenomenon of public archaeology precisely, but they rather determine it as a socio-cultural notion, it can be concluded that its fundamental focus is on the relationship between archaeology and the general public, i.e. the audience (Matsuda 2004: 68), so that it represents "the management of the national archaeological heritage in the public interest" (Simpson and Williams 2008: 72). Also, within the notion of public archaeology the concept of community archaeology frequently emerges entailing the participation of the community and its representatives in archaeological activities or projects related to heritage conservation and valorisation. In these processes, education represents an important segment and the aim of this paper is to present examples of such practices in the Viminacium archaeological park. Special emphasis is put on programmes where the young population actively participates because the influence of these programmes is very significant for the constitution of the archaeology knowledge dissemination method. Such methodology could serve as an addition to the formal education in Serbia, where this science is not sufficiently present in existing curricula.

Public archaeology and participation as a methodological frame for dissemination

The field of public archaeology comprises a wide range of topics: the issues of illegal excavations and trade; privatization and human rights in archaeology; featuring archaeology in films, TV and other media; the activities of local communities in the campaigns to conserve cultural heritage or excavation sites; the research into the demography of visitors to archaeological sites and the presence of archaeology in educational programmes (Acherson 2000: 2; Moshenska 2017: 3-4). However, such an inclusive definition of public archaeology as a practice where archaeology opens up to the real world differs from the narrower sense of public archaeology as a synonym for the influence of archaeologists in public. Due to the need to align these approaches a typology of public archaeology was established where the following concepts are distinguished: archaeologists working with

the public, archaeology by the public, public sector archaeology, archaeological education, open archaeology, popular archaeology and academic public archaeology (Moshenska 2017: 9-10, fig. 1.1.).

The theoretical frame that serves as a methodological ground for educational activities presented in this paper is based on the synthesis of the three above-mentioned typological fields: archaeologists working with the public, public sector archaeology and archaeological education. The first one is related to the common inclusive concept of public archaeology, which often comprises community archaeology i.e. the work conducted by professionals where the members of the general public and local community are also involved. These projects are usually realized by museums, commercial archaeological departments, university departments or local authorities, sometimes in partnership with schools or specific communities and today, such practice is recognized throughout Europe and America (Simpson and Williams 2008; Nevell 2014; Dhanjal et al. 2015; Moshenska 2017: 6). The basis of such practice can be found in the changes in the theory of archaeology during the last decades of the 20th century, when democratisation in the interpretation of material cultural heritage occurred, enabling a wide range of meanings of an artefact or historical landscape to be formed from different perspectives, which consequently led to the acceptance of the significance of local communities in the process of the comprehension of the past and cultural heritage preservation (Thomas 2017: 14-15).

The next typological category we sequenced is public sector archaeology which includes the activities of all entities at a regional, national and local level which are financed by governments with the aim to manage, preserve, study and communicate archaeological heritage (Moshenska 2017: 7). Finally, the typology which comprises archaeological education is based on the principle that experts have a duty to share their knowledge with those who show interest and respect to the heritage so that heritage can be properly used as a resource. This is achieved through various methods such as expert activities in museums or on sites encompassing informal talks or guided tours, workshops and organized trainings or educational programmes in certain countries (Henson 2004; Baxter 2009; Corbishley 2011; Moshenska 2017: 8). It is necessary to emphasise that the educational efforts of professionals are usually targeted at younger members of the society, especially through schools or activities of teachers enthusiasts, as it ensures a greater effect as the initiative for participation usually does not come from the young (Smardz and Smith 2000; Hansen and Fowler 2008: 332; Jeppson and Brauer 2008; Corbishley 2011: 76-199). In addition, it is important to note that the central point of educational activities about archeology are based on the fundamental principles of this scientific discipline such as learning about the past and from the past or heritage management which ensures the connection of the general public with their own past. As this entails emotional, and not purely intellectual experience (Henson 2017: 45), young generations are the most open to such involvement.

However, the perception of public archaeology or comunity archaeology in our country shows that they are not understood properly, and their processes are often identified as equal to or intertwined with popular archaeology¹ with sporadic realization of activities (Cvjetićanin 2019; 794, 797, 804). Due to the need to change this situation as well as "the perception of archaeological remains in our country rather as an obstacle than an oportunity" (Crnobrnja 2017: 89), we would like to emphasise that it is necessary to create a serious strategic plan in the domain of public archaeology and to put it in action. In our opinion, the key role in this can be seen in participation, bearing in mind that it reflects the changes in contemporary practices of executive authorities and the need to involve various stakeholders including those outside the traditional field of politics. That is why today the emphasis is put on the encouragement of local comunities to take part in cultural activities for the sake of enjoyment along with the so-called political participation, as these are related by the common narrative based on the values of the heritage itself which motivates people to participate in its conservation and derive benefits from it (May 2020: 1). Since this shows the tendency of modern society, its authorities and citizens, to accept the responsibility for heritage and to take steps to preserve it together as much as possible (Димитријевић-Марковић 2010: 186, note 6), in this paper we will point at the potential of its application in education, as an excellent foundation for essential changes within the above mentioned archaeological discipline in our society.

Participative programmes for the young as educational methodology in the practice of the archaeological park of Viminacium

The archaeological park of Viminacium was founded in 2006 on the site of a Roman military camp and capital of the Roman province Moesia Superior, whose remains lie under the fields in the area of around 450 hectares. This excellent strategic position, in the fertile valley among the Danube and Mlava rivers, was where a military camp of two legions - IV Flavia and VII Caudia was located in the first decades of the 1st century. Somewhat later, a civil settlement developed on this spot which gained the status of municipium in the 2nd century and the status of a colony during the reign of Emperor Gordianus, when the production of local coins started there (Борић-Брешковић 1986). From the 3rd century onwards, unlike the situation throughout the Empire, Viminacium had large economic, strategic and cultural growth, with approximately 30 000 inhabitants. The city was destroyed during the Hunnic invasions in 441/443 AD (Спасић-Ђурић 2015). Despite the fact that this is one of the rare European sites which is not located under a modern town, today only slightly more than 3% of its area have been explored (Anđelković Grašar et al. 2013: 9). The first excavations in Viminacium began at the end of the 19th century, but only since the 1970s the continuous excavations have been conducted under the supervision of the researchers of the Archaeological Institute in Belgrade in cooperation with the Institute for the Protection of Cultural Monuments of Serbia.² Since the beginning of the new millenia, the research has been carried out by an interdisciplinary team of the Institute of Archaeology with the aid of new technologies. Thanks to this research some of the objects originating from the civil settlement, military camp and necropolis zone have been exhibited and presented to the audience (Anđelković Grašar et al. 2013: 10, no. 4-10). After opening to the public, Viminacium finally gained its permanent protection in 2009 in regard to the activities of the strip mine and illegal looting.3

The very first basis of the itinerary in Viminacium included the connection among three protected objects at that moment: *Porta praetoria, Thermae* and the Mauso-

¹ Popular archaeology includes processes where the general public is acquainted with archaeology and its accomplishments through media and popular culture, which may lead to superficial and overly romanticized interpretation of heritage. However, it is held that these activities achieve best effects in terms of procuring political, cultural and economic support to heritage (Holtorf 2007; Moshenska 2017, 9-10).

² The site has been under state protection since 1949, while in 1979 it was declared a cultural monument of exceptional importance (Milić and Pejić 1998:19).

³ More about Viminacium protection in: Nikolić et al. 2013, 213-222; Nikolić et al. 2017, 573-583.



Figure 1. Viminacium Archaeological Park and Domus Scientiarium. Source: documentation of the Institute of Archaeology, Belgrade (Viminacium project).

leum of Emperor Hostilian who was probably deceased in Viminacium (Korać et al. 2009: 98-99). Along with the efforts to present the archaeological finds, from the very start lots of attention has been paid to the methods of heritage interpretation and other means of communication with the visitors, in order to transfer knowledge about Roman culture such as reviving the authentic taste of Roman food or souvenirs that are replicas of the original items found during excavation works (Anđelković Grašar et al. 2013: 12). Besides, all necessary tourist infrastructure have been provided starting from the access road, parking lot, walking paths, souvenir shop and a building named Domus Scientiarum Viminacium which serves as a scientific, research and visitors centre (Anđelković Grašar et al. 2013: 13; Anđelković Grašar et. al. 2020: 260) (Fig. 1).

The complexity of the management of such cultural heritage site is reflected in the fact that archaeological research has been conducted there parallel with the activities created by its tourist valorisation, representing a good example of modern trends in archaeological sites management which strive to achieve sustainable

development (Loulanski and Loulanski 2016: 7). Also, a holistic approach to management (UNESCO 2013: 15), can be noticed in the endeavour to create partnership networks i.e. to achieve the inclusion of various stakeholders (research institutes, tourism organizations, local authorities, relevant ministries, museums, tourists, local community etc.), while it is significant to emphasise that participation has been present as a strategic commitment in the work of the Viminacium Archaeological park. Namely, the local community has been involved in various jobs from the very beginning, which has led to their appropriate education due to the many years of cooperation of the researchers and the residents so that they actively take part in the processes of conservation and presentation of the archaeological heritage. In addition, the scope of illegal excavations have been reduced as well as illegal trade related to archaeological finds, since the representatives of the local community have developed awareness of the value of the heritage having bonded with it and thus becoming its invaluable guardians (Nikolić et al. 2017: 575-576; Anđelković Grašar et. al. 2020: 261-263). Such a concept is an excellent starting point for numerous educational programmes as



Figure 2. Young Romans, living history at Viminacium. Source: documentation of the Institute of Archaeology, Belgrade (Viminacium project).



Figure 3. Young Romans, living history at Viminacium. Source: documentation of the Institute of Archaeology, Belgrade (Viminacium project).

dissemination is one of the dominant activities of Viminacium, realized through numerous activities such as scientific gatherings and conferences, exhibitions, educational programmes for children and youth in the form of camps, workshops etc.⁴

On this occasion, we have singled out a few examples of participation programmes targeted at the education of youth. They can constitute representative models for the development of a suitable methodology which could serve as an addition to the knowledge about archaeology in formal educational curricula in Serbia. First, we will mention the programme *Young Romans* which is the basis of education for children in Viminacium Archaeological park, with the aim to acquaint them with the cultural heritage and the way of life in antiquity (Figs. 2-4). In this programme children wear costumes and spend time in the authentic ambience of *Domus*, taking part in recreating various Roman customs and games, so that through direct participation in accordance with the so-called principle of *living history*⁵ they actively



Figure 4. Young Romans, living history at Viminacium. Source: documentation of the Institute of Archaeology, Belgrade (Viminacium project).

learn about the heritage from their surroundings.⁶ Also, this concept supports new postulates which show that today's cultural heritage needs to get closer to the so-called spectacle culture, enabling communication with younger generations in the audience. Simultaneously the success of spectacle culture is based on the need of the audience to leave the traditionally passive role, so that, thanks to interaction, learning becomes a supreme entertainment (Ognjević 2013: 152, 154). An indicator of the appeal of the educational programme *Young Romans* and its role in the creation of a better relationship

For several years children scientific camps in organization of InterSection – Centre for Science and innovation were held at Viminacium Archaeological Park, while via Erasmus+ programme project "Danube-camps" was held in 2021 in Viminacium Limes Park, hosting 13-year-old pupils from five different EU countries and Serbia.

⁵ One of the forms of imediate interpretation, especially popular in the USA, is the concept of *living history* or *living heritage*, when the professional staff, usually curators in appropriate costumes, speak to the audience in the role of a historical figure who reconstructs the past. It is important to mention that in the former literature the educational character of this concept was questioned, although it was held that it certainly had an exceptional visual appeal (Reisinger and Steiner 2006).

⁶ For the purpose of education and promotion of the archaeological site of Viminacium board game "Mistery of the Emperor's death" was created by an archaeologist, PhD Nemanja Mrđić. About the programme Young Romans and the game, see: Mrđić 2012: 124-126.



Figure 5. *Defixiones* project, clay with Latin curse. Photo by: J. Radenković, documentation of TRAME project.



Figure 7. *Defixiones* project, finding fragments. Photo by: J. Radenković, documentation of TRAME project.



Figure 6. Defixiones project, excavations. Photo by: J. Radenković, documentation of TRAME project.

between the heritage and the audience is the fact that the researchers from the Institute of Archaeology in Belgrade who had taken part in its creation and realization continue to apply their practical knowledge through the conceptually similar programmes in the region. Also, that is how excellent cooperation has been formed with future professionals i.e. the Archaeology Students Club from the Faculty of Philosophy at Belgrade University which was presented through educational workshops at Roman games in Ptuj in 2021 with great reception in the audience, especially among the young (Anđelković Grašar et al. 2021a; 2021b).

Also, participation programmes that are related to teaching units in formal education which are realized in the authentic setting such as the archaeological park of Viminacium, show multiple benefits as the results attest: they encourage students to acquire knowledge more easily through the so-called creative learning and simultaneously enable forming a relationship between the heritage and the participants which ensure the better acquisition of knowledge from the field of archaeology. This kind of initiative is recognized on EU level and supported by Erasmus + project TRAME (Tracce di memoria 2020-1-IT02-KA201-079794) in which best practices of non-formal and practical learning were researched and



Figure 8. Defixiones project, making the whole. Photo by: J. Radenković, documentation of TRAME project.

WORKSHOP EVALUATION (Education unit goals)	Com- pletely realized	Mostly realized	Partially realized	Not realized
The students' have shown that they understood the learning subject in class because they know how to apply it and explain how they came to the solution in the changed conditions of the workshop on the site (this indicator is especially noticeable in the excavation that ended the project).	YES			
The students connect the subject of learning with previously learned in different areas, professional practice and everyday life.	YES			
The students actively contributed to the quality of the project thanks to their comments (projects' evaluation and improvement).		YES		
In an atmosphere of mutual respect, the teacher of practical classes establishes and maintains discipline in accordance with the agreed rules (which is especially contributed by the pleasant atmosphere of the environment).	YES			
The activities in the project are diverse, so that each student can find something close to their interests and personal preferences.	YES			

Table 1. Defixiones project evaluation - Education unit goals.

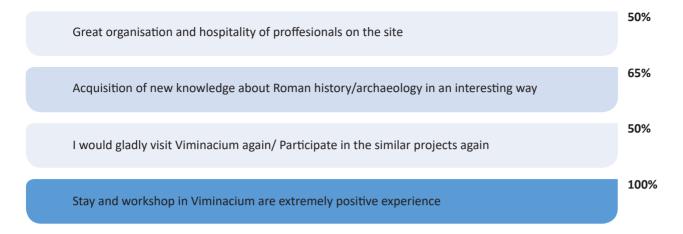


Table 2. Defixiones project evaluation - Most common impressions of students who participated.

used as the basis of TRAME innovative methodology aiming to present cultural heritage as the basis in the educational process towards the youth (Анђелковић Грашар 2021: 85; Nocita 2021: 180-185). One of the best practices from Serbia is the project named Defixiones which was realized within the school subject of Latin language in the High School in Požarevac, entailing six classes during the week as well as weekend classes in Viminacium. The weekend programme included Latin sayings (curses) which had been previously written on clay plates, then baked, broken into parts and dug in the soil. After that, the students took the role of archaeologists and excavated the fragments with the aim to join them and recreate the appropriate whole (Figs. 5-8). After a short practical training on the spot, the students got acquainted with the method of work of archaeologists and acquired knowledge showing that this kind of education can be very efficient. During the evaluation of the project and the quality of its practical realization, the students actively took part in the analysis of the applied methodology and thus cooperated with the teacher in a better way, while it was evident that the creativity of the approach encourages individual response to the task and the opportunity to develop individual methods of the approach to problem-solving (Table 1). On the other hand, the positive aspects of the project in terms of archaeology apart from the participation in the field practice training relate to the high degree of the participant's satisfaction with the realization of the project in the archaeological park of Viminacium, then significant bonding of the students with the heritage (50% expressed their wish to revisit it), while the hospitality of the researches who welcomed them as well as the method of

knowledge acquisition also received high grades in the survey (Table 2).⁷

Permanent partners of the archaeological park of Viminacium among educational institutions include a college of applied studies which educates professionals in the field of tourism industry i.e. The Academy of Applied Studies Belgrade, with the College of Tourism as its department, where students regularly participate in an internship programe lasting for several months. As this is a longer stay, future professionals have an opportunity to get to know all the segments of archaeology park management with all its complexity. They can also gain knowledge about the conservation and presentation of archaeological artefacts as well as the basics of excavating, together with data about Roman history and way of life which is a necessary prerequisite for heritage interpretation. What may be the closest to their future position of tourism professionals is the opportunity to get familiar with the possibility of organizing guided tours, which requires a certain degree of flexibility given that various categories of visitors arrive at the site. Additionally, one of the most significant benefits arising from this cooperation can be noticed in the student's evaluation survey concerning the aspects of the internship (Table 3). We will single out two of these. First, while 50% of the students stated that they could apply theoretical knowledge in practice, the rest of them was less sure or neutral, which reflects the need to implement changes

We express special gratitude to teacher Jovana Radenkovic from The High School in Požarevac who was the leader of this project and who supplied the data about evaluation that we used to create tables in this paper.

INTERNSHIP EVALUATION	Strongly agree	l agree	Neutral	I don't agree	Strongly disagree
Satisfied with the organization where I did my internship	100%				
Satisfied with the communication of the mentors in the organization	100%				
Satisfied with the acquired knowledge regarding the structure (management) of the organization	75%	25%			
I had the opportunity to apply theoretical knowledge in practice	50%	25%	25%		
The internship helped me identify additional interests	50%		25%	25%	
The internship helped me to recognize the area of further pro- fessional development	75%	25%			
Satisfied with the entire experience gained during the internship in Viminacium	50%	50%			

Table 3. Evaluation of tourism students internship in Viminacium.

or adaptations in curricula so that they align with the real trends in practice, especially in terms of this type of guiding. Since in this case, a classical tour guide cannot perform the task well, but it would be more appropriate for a professional with wide in-depth knowledge of archaeological heritage and the techniques of its interpretation, along with excellent interpersonal skills, there is an evident need for intersectoral cooperation which would result in the education of a new type of professionals i.e. certified heritage interpreters (Plemić and Rabotić 2018: 128). Heritage interpreters would cover a wide range of positions, starting from tailored guided tours on sites, to educational activities in local communities as well as cooperation with institutions of formal education through campaigns aimed at raising awareness of the significance of cultural heritage. Their potential role would be of great importance for the better valorisation of archaeological heritage in Serbia, the development of heritage tourism and archaeo-tourism as a specific tourist niche on our market. Furthermore, another important data obtained through the above-mentioned evaluation points at the fact that after the completed internship in Viminacium, 75% of students believe that the experience helped them determine the next area of professional training, which attests that they recognize the need for narrowing their professional profile.

Conclusion

In this paper our aim was to point at two important strategic concepts in the work of the archaeological park of Viminacium: their orientation towards participation and their dedication to education,8 which can give good results through an integrated approach in terms of knowledge acquisition in the field of archaeology and better bonding of the young with cultural heritage. From the above-mentioned examples of good practice, we could conclude that it facilitates the acquisition of lessons in formal education which are not directly related to archaeology, encouraging students' creativity and personal interest in Roman culture, which is the best method to form the audience who will have an appropriate attitude to cultural heritage. Moreover, such participation programmes may be an important addition to the knowledge about archaeology presented in formal educational institutions. Given the fact that topics related

⁸ The emphasis on the educational character of the contents in the archaeological park of Viminacium can be proved by the fact that the school excursions amount to the highest percentage of all annual visits. In 2018, school trips amounted to 46% of all annual visits, while in 2019 they comprised 54%. We express our thanks to Dubravka Tomić, the manager of the tourism sector of Viminacium, who gave us access to the above mentioned data.



Figure 9. Entrance to Viminacium Limes Park. Source: documentation of the Institute of Archaeology, Belgrade (Viminacium project).

to archaeological heritage are scarcely present in their curricula, there is also space for consideration of the possibility of integrating them as a permanent supplement to the education system in Serbia. Although until now the participants in the above-mentioned projects mostly belonged to local communities (e.g. the students in the Defixiones project come from Požarevac which is the town nearest to the site, while internship in Viminacium was mainly chosen by the students whose families live near the site, for practical reasons), maintaining the continuous process of their realisation and widening the scope of partners' network as well as insisting on permanent cooperation with the representatives of the official formal education, the benefits of this methodology can be raised to the national level. Thus the knowledge about archaeology and the values of cultural heritage can be implemented into the above-mentioned system from the earliest age to student days, which would ensure that those with appropriate interest may choose the professions related to heritage more easily. Also, in a such way whole generations may be taught to actively co-exist with their cultural heritage knowing how to preserve it more responsibly.

Based on this positive experience and youth response Viminacium Archaeological Park enlarged its capacities since 2018, by the building project of Limes Park which purpose can be defined as an educational centre. This complex consists of two large conference/lecture/workshop halls, a kitchen and dinning room, as well as six barracks for possible accommodation of 480 children. It is built in a form to resemble a Roman military camp (Fig. 9). In addition there is a polygon with obstacles, and an adventure park (Korać 2019: 459-490). All these together represent the necessary infrastructure for hosting large educational projects with facilities which could provide undisturbed work for children and youth.

References

Анђелковић Грашар, J. 2021. Интерпретација културног наслеђа и формално образовање: "TRAME" Еразмус+ пројекат као пример добре праксе, Српско археолошко друштво XLIV скупштина и годишњи скуп, Параћин, 14. — 16. октобар 2021. године, Програм, извештаји и апстракти, Параћин, 98.

Anđelković Grašar, J., Rogić, D. and Nikolić, E. 2013. Viminacium Archaeological Park – Modern Code for Re-reading the Past of the Roman City and Legionary Camp, In: J. Popielska-Grzybowska and J. Iwaszczuk (eds.), *Studies on Disasters, Catastrophes and the Ends of the World in Sources*, Acta Archaeologica Pultuskiensia, vol. IV, Pultusk, 9-16.

Anđelković Grašar, J., Nikolić, E. and Tapavički-Ilić, M. 2020. Viminacium Archaeological Park as an Instrument of Integration of the Local Community into the Protection of Cultural Heritage, In: R. Carmenati, M. Giuliodori and J. Piccinini (eds.), Roma e il mondo Adriatico dalla ricerca archeologica alla pianificazione del territorio, Roma, 259-270.

Anđelković Grašar, J., Mladenović, M., Gavrilović, A., Grujić, D., Đerković, P., Perić, P. and Ilić, I. 2021a. Archaeology Workshops as an Educational Approach in Communication with the Public – Case Study Roman Games in Ptuj, *Archaeology and Science* 17, 135-146.

Anđelković Grašar, J., Tapavički-Ilić, M., Gavrilović, A., Bondžulić, K. and Đorđević, M. 2021b. Paths of Storytelling Focused on Archaeology and its Outreach Potential — Case Study Roman Games in Ptuj, *Archaeology and Science* 17, 147-158.

Ascherson, N. 2000. Editorial, *Public Archaeology* 1(1), 1-4.

Baxter, J. E. 2009. *Archaeological Field Schools: A Guide for Teaching in the Field*, CA: Left Coast Press, Walnut Creek.

Борић-Брешковић, Б. 1986. Реверсне представе на новцу колоније Виминацијума, *Зборник Народног музеја* XII-1, 138—142.

Corbishley, M. 2011. Pinning Down the Past: Archaeology, Heritage and Education Today,

Boydell, Woodbridge.

Crnobrnja, A. 2017. Arheološko nasleđe u Srbiji danas – briga države ili posao entuzijasta, *Moderna konzervacija* 5, 77-96.

Cvjetićanin, T. 2019. Teren i javna arheologija (ili Zašto je potrebno preispitivati i naizgled jasne veze?), *Etnoantropološki problemi*, n.s. 14/3, 789-809.

Dhanjal, S., Flinn, A., Lockyear, K. and Moshenska, G. 2015. Dig where we stand, In: K. Lockyear (ed.), *Archaeology in Hertfordshire: Recent Research*, University of Hertfordshire Press, Hatfield, 326-334.

Димитријевић-Марковић, С. 2010. Учешће грађана као предуслов за успешну заштиту наслеђа, *Наслеђе* 11, 185-192.

Hansen, D. and Fowler, J. 2008. Protect and present: Parks Canada and public archaeology in

Atlantic Canada, In: J. Jameson and S. Baugher (eds.), *Past Meets Present: Archaeologists Partnering with Museum Curators, Teachers and Community Groups*, Springer, New York, 321-338.

Henson, D. 2004. Archaeology in schools, In: D. Henson, P. Stone and M. Corbishley (eds.), *Education and the Historic Environment*, Routledge, London, 23-32.

Henson, D. 2017. Archaeology and education, In: G. Moshenska (ed.), *Key Concepts in Public Archaeology*, University College London Press, London, 43-59.

Holtorf, C. 2007. *Archaeology is a Brand! The Meaning of Archaeology in Contemporary Popular Culture*, Archaeopress, Oxford.

Jeppson, P. and Brauer, G. 2008. Archaeology for education needs: An archaeologist and an

educator discuss archaeology in the Baltimore County public schools, In: J. Jameson and

S.Baugher (eds.), Past Meets Present: Archaeologists Partnering with Museum Curators,

Teachers and Community Groups, Springer, New York, 231-248.

Korać, M. 2019. Viminacium Urbs et Castra Legionis: Research, Protection, Presentation and Valorisation, Institute of Archaeology, Belgrade.

Korać, M., Golubović, S. and Mrđić, N. 2009. *Itinerarium Romanum Serbae: Road of Roman Emperors in Serbia*, Center for New Technologies Viminacium.

Loulanski, V. and Loulanski, T. 2016. Interdisciplinary Integration of Heritage Studies and Sustainable Development, In: V. Katsoni and A. Stratigea (eds.), *Tourism and Culture in the Age of Innovation, Second International Conference IACuDiT*, Athens 2015, 1-15.

Matsuda, A. 2004. The Concept of "the Public" and the Aims of Public Archaeology, *Papers from the Institute of Archaeology* 15, 66-76.

May, S. 2020. Heritage, endangerment and participation: alternative futures in the Lake District, *International Journal of Heritage Studies*, 26:1, 71-86.

McGimsey, C. R. 1972. *Public Archeology*, Seminar Press, New York.

Milić, M. and Pejić, S. (eds.) 1998. *Spomeničko nasleđe Srbije: Nepokretna kulturna dobra od izuzetnog i velikog značaja,* Republički zavod za zaštitu spomenika kulture, Beograd.

Moshenska, G. 2017. Introduction: public archaeology as practice and scholarship where

archaeology meets the world, In: G. Moshenska, (ed.), *Key Concepts in Public Archaeology*, University College London Press, London, 1-13.

Mrđić, N. 2012. Roman Cultural Heritage as a Tourist and Educational Resource, In: R. Chowaniec and W. Więckowski (eds.), *Archaeological Heritage: Methods of Education and Popularization*, BAR International Series 2443, Archaeopress, Oxford, 121-127.

Nevell, M.D. 2014. Community archaeology at the University of Salford: 2009 to 2013, *The Museum Archaeologist* 35, 17-21.

Nikolić, E., Anđelković Grašar, J. and Rogić, D. 2017. Viminacium. Research, Protection, Recognition, In: J. R. Dos Santos (ed.), *Preserving Transcultural Heritage: Your Way or My Way? Questions on Authenticity, Identity and Patrimonial Proceedings in the Safeguarding of Architectural Heritage Created in the Meeting of Cultures*, Lisboa, 573-583. https://doi.org/10.30618/978-989-658-467-2 52

Nikolić, E., Rogić, D. and Anđelković Grašar, J. 2013. Catastrophes as an Inevitable Result of Civilizations Flow: Relocation and Dislocation of Historical Physical Structures at the Archaeological Site of Viminacium, Serbia, In: J. Popielska-Grzybowska and J. Iwaszczuk (eds.), *Studies on Disasters, Catastrophes and the Ends of the World in Sources*, Acta Archaeologica Pultuskiensia vol. IV, Pułtusk 2013, 213-222.

Nocita, M. 2021. TRAME antiche e moderne per un nuovo tessuto europeo, in: G. Chiarilli (ed.), Roma vocazione all'accoglienza e senso di comunita dalla storia al contamporaneo, Palombi editori, Roma.

Ognjević, T. 2013. Archaeological heritage and modern spectacle as cultural entrepreneurship experiment, *Archaeology and Science* 9, 149-154.

Plemić, B. and Rabotić, B. 2018. Uloga interpretacije u promociji arheološkog nasleđa Srbije, In: M. Stanišić (ed.), Kultura, nasleđe i razvoj turizma, SITCON (Singidunum International Tourism Conference) 2018, Univerzitet Singidunum, Beograd, 123-130.

Reisinger, Y. and Steiner, C. 2006. Reconceptualising Interpretation: The Role of Tour Guides in Authentic Tourism, *Current Issues in Services* 9(6), 481-498.

Schadla-Hall, T. 1999. Editorial: Public Archaeology, *European Journal of Archaeology* 2(2), 147-158.

Simpson, F. and Williams, H. 2008. Evaluating community archaeology in the UK. Public, *Archaeology* 7(2), 69–90.

Smardz, K. and Smith, S. (eds.) 2000. *The Archaeology Education Handbook: Sharing the Past with Kids*, CA: AltaMira Press, Walnut Creek.

Спасић-Ђурић, Д. 2015. Виминацијум. Главни град римске провинције Горње Мезије, Народни музеј Пожаревац, Пожаревац.

Thomas, S. 2017. Community archaeology, In: G. Moshenska (ed.), *Key Concepts in Public Archaeology*, University College London Press, London, 14-30.

UNESCO 2013. *Managing Cultural World Heritage, UN-ESCO – World Heritage Centre*, Paris. https://whc.unesco.org/document/125839 (Accessed: 10.03.2022).