

CULTURAL HERITAGE UNDER CONSTRUCTION: EXPLORING STAKEHOLDER PERCEPTIONS OF PREVENTIVE ARCHAEOLOGY IN ROMANIA

Silviu ANGHEL, Alexandra ZBUCHEA, Monica BÎRĂ

Abstract

For over two decades, Romania's fast-growing construction industry made an impact on infrastructure, landscape, and urban areas, contributing to an increase in preventive archeology research activities. The current study aims to explore public perceptions of both archaeology and preventive archeology. It was conducted online, on a convenience sample comprising both professionals within the domain of archeology and heritage safeguarding and research, as well as non-professionals. Its main aim is to shed light on the current situation, given the fact that public perceptions change over time and niche topics such as preventive archaeology pose a specific set of challenges when they have to be publicly addressed by various stakeholders.

Keywords: public perception, archeology, preventive archeology.

Argument

For more than 20 years now, Romania has experienced a fast development in the construction industry, leading to a significant rise in demand for infrastructure, industrial facilities, offices, and commercial buildings as well as residential complexes and buildings. Recent data underlying this phenomenon indicate that in 2021 the construction industry contributed a little over 7% to the country's GDP, this being one of the highest percentages in Europe¹. However, this fast-growing pace does not trigger significant economic development when compared to other states from the European bloc (in terms of annual production value, Romania ranks 15th amongst European countries, when looking at data from the construction industry²). The turnover is also high, at around 50%, coupled with increased investments in 2020. The trend points decisively towards a growing sector for the construction industry, despite the effects of

¹ Statista, "Value of the construction industry as a share of the gross domestic product (GDP) in Europe in 2021, by selected countries". <https://www.statista.com/statistics/1309425/gdp-share-of-the-construction-industry-in-europe-by-selected-countries/> (accessed January 21, 2023).

² Statista, "Annual production value of the construction industry in selected European countries 2020 (in million euros)". <https://www.statista.com/statistics/964804/construction-industry-production-value-by-country/> (accessed January 21, 2023)



the 2008 economic crisis and the slow recovery after COVID-19 disruptions, with investments registering a significant boost of 92% in the real estate sector and 82% in architectural and engineering activities when compared to data from 2010³. This situation is linked with the enhanced economic development that allows more investments in all fields, and, as a consequence, it determines increased funding for development projects, as well as for renovation of older structures, and monuments of all sorts. According to the legislation, all construction processes should follow a thorough archaeological survey, part of preventive archaeology aiming to ensure the preservation of valuable heritage.

Preventive/rescue archeology is meant to ensure that any valuable cultural heritage resources are identified, documented, and potentially preserved. before they are destroyed for a broader social and/or economic benefit. While activities pertaining to preventive archeology serve an essential role in preserving our cultural heritage, it can sometimes be viewed as a barrier to development for several reasons. Infrastructure and realty developers could consider preventive archaeology a delay for their project, an unnecessary cost, and eventually a cause for additional (unjustified) expenses if archeological discoveries result in changes of their initial plans. Preventive archeology is often associated with time and cost constraints that may not seem justified considering the perceived benefits for developers (and sometimes even for communities). The negative view on preventive archaeology might be also linked to miscommunication, limited public awareness, or to misunderstandings. Even amongst professionals in the field, there are voices considering that sometimes, archaeology's emphasis on preserving the traces of the past leads us to overlook its main purpose; In addition, a lack of communication with the public may result in losing the social role that archeology might have otherwise⁴. Another aspect to consider is that increased campaigns of preventive archaeology pose difficulties to specialists in terms of effectively managing the heritage and discoveries⁵.

Preventive archaeology (as it is currently understood in Western European countries) is a practice that developed in Romania, as well as in other Eastern European countries, after the fall of communism. The past few decades have

³ European Commission, "European Construction Sector Observatory. Country profile Romania. January 2022". https://single-market-economy.ec.europa.eu/sectors/construction/observatory/country-fact-sheets/romania_en (accessed February 25, 2023)

⁴ Jaime Almansa-Sánchez, "Paper, Perception and... Facts? Exploring Archaeological Heritage Management in the Mediterranean and the Weight of Public Archaeology." *Ex Novo: Journal of Archaeology* 6 (2021): 7-25.

⁵ Paul Jobin, "Preventive Archaeology Should not be Reified! The Case of the Swiss Motorway Archaeology," in *Recent Developments in Preventive Archaeology in Europe*, eds. Predrag Novaković et al. (Ljubljana University Press, Faculty of Arts, 2016): 109-122.

determined former communist countries to shift from rescue archeology to preventive archaeology. Nevertheless, in these countries, preventive archaeology is tightly related to the idea of rescues and one of the dominant views is that preventive archaeology has strong academic goals⁶. It follows that, in many situations, relevant research and higher education institutions are in charge of this activity, in accordance with their expertise and the public perception mentioned above.

From society's perspective, the significance of large development projects goes beyond the improvements in infrastructure, urbanism, and in living standards they bring. The associated preventive archaeology could unearth valuable artifacts and long-forgotten built heritage. Therefore, preventive archaeology, named rescue archaeology or even development-lead archaeology, brings new knowledge and enriches museums⁷. Sometimes, it contributes to discovering new significant archaeological sites that become later tourist attractions. Also, there are situations in which preventive archaeology is the only available resource for documenting extensive areas, including those containing known heritage sites. If these areas are subjected to infrastructure projects of high relevance (such as dams, for instance), that would lead to the destruction of all remains including the existing heritage. All these situations document complex relationships between archaeology, societal change, and economic development⁸. Therefore, more attention should be given to preventive archaeology not only by the public bodies or archaeologists but also by the general public.

Considering the relevance of preventive archaeology, as well as the mixed feelings that it might generate, the present paper aims to better understand perceptions related to this topic, in Romania. In 2022 we conducted an extensive survey, that gathered the opinions of 379 individuals, laypersons, archaeologists, and other professionals belonging to fields related to archeology and cultural heritage, living in all regions of Romania. The findings are analyzed in this paper, after considering an assessment of the legislation in the field of preventive archaeology, as well as a narrative literature review focused on this topic. The final section includes recommendations for archaeologists and public administration to better promote the concept of preventive archaeology and its relevance.

⁶ Predrag Novaković, Milan Horňák, Maria Pia Guermandi, Harald Stäuble, Pascal Depaepe, and Jean-Paul Demoule. *Recent developments in preventive archaeology in Europe*. (Ljubljana University Press, 2016).

⁷ Jean-Paul Demoule, "Rescue archaeology: a European view." *Annual Review of Anthropology* 41 (2012): 611-626; Watson, Sadie, and Harald Fredheim. "Value from development-led archaeology in the UK: Advancing the narrative to reflect societal changes." *Sustainability* 14, no. 5 (2022): 3053.

⁸ Isto Huvila, Costis Dallas, Marina Toumpouri, and Delia Ní Chíobháin Enqvist. "Archaeological Practices and Societal Challenges." *Open Archaeology* 8, no. 1 (2022): 296-305.



Preventive archaeology. A synthetic literature review

Guermandi observes that “archaeology has changed profoundly in the space of a few decades and has been transformed, in practice but not in the academic-institutional perception, from a discipline of pure research to a set of activities at the service of the community, performed by professionals and coordinated by public bodies”⁹. She also notices that communication is vital for stakeholders and the wider public to understand the relevance of (preventive) archaeology and to combat a possible distorted public perception.

Another key aspect to consider is how society, including the scientific community, perceives, values, and uses the outcomes related to (preventive) archaeology. Large-scale archaeological surveys focused on substantial development and infrastructural projects have sometimes changed our understanding of the past furthering knowledge and comprehension. New settlements have been discovered, chronologies have been adjusted, and perspectives on life in various times and places have been adjusted. Still, the transfer of knowledge between archaeologists involved in these surveys, and historians has been slow. This might be linked to the relatively slow process of publishing findings, as well as the fact that restoration processes of the artifacts tend to be lengthy and don't enjoy high visibility. In some instances, even the quality of the analysis of these archaeological surveys and the access to them are debated among professionals. An important aspect related to preventive archaeology is the fate of the artifacts discovered during excavations and the associated knowledge. Preventive archaeology tends to be considered a data-driven process, with low attention given to the quality of the interpretation of results¹⁰.

There are, in fact, two views related to the role and processes associated with preventive archaeology. One, dominant in Western, more liberal countries, considers that rescue archaeology is in fact “developer-led archaeology” - a commercial service offered to developers to assist them as “clients” in the wider framework of a development project¹¹. The opposite view, which characterizes also Romanian legislation as signaled before, departs from the assumption

⁹ Maria Pia Guermandi. “Twenty years after Malta: taking stock,” in *Twenty years after Malta: preventive archaeology in Europe and in Italy*, eds. Maria Pia Guermandi, and Kai Salas Rossenbach: 3-12.

¹⁰ Predrag Novaković, Milan Horňák, Maria Pia Guermandi, Harald Stäuble, Pascal Depaepe, and Jean-Paul Demoule. *Recent developments in preventive archaeology in Europe* (Ljubljana University Press, 2016).

¹¹ Jean-Paul Demoule, “Preventive archaeology: Scientific research or commercial activity.” *Recent developments in preventive archaeology in Europe: Proceedings of the 22nd EAA Meeting in Vilnius*, eds. Predrag Novaković et al. (Ljubljana University Press, Faculty of Arts, Lubljana, 2016): 9-19.

that the interests of “developers” are often in contradiction with objectives that communities and society at large are formulating in relation to heritage and heritage preservation. This perspective considers that developers are primarily concerned with quickly obtaining the required permits on the future construction terrain, “freed from archaeological heritage” at minimal cost, rather than seeking the highest quality archaeological research. Therefore, the state has to supervise and make sure that the interests linked with heritage and, consequently, communities are protected before the private interests of certain investors.

In this complex framework, professionals consider some common standards and practices¹². Nevertheless, gaps between preventive and academic archaeology can be observed, with variations among different countries. Differences arise not only from motivations and reasons behind research but also from objective conditions in which research is conducted. In the case of preventive archaeology, there are more external factors at play. One could consider that academic research benefits from a friendlier environment, while preventive archaeology is marginalized within a large development project. In some countries, there are even two types of professionals in culture/archaeology¹³, while in others the same archaeologists, who are members of relevant research bodies and higher education institutions, are involved in both types of campaigns.

Recently, several studies examining the state of preventive archaeology in Europe have been conducted¹⁴. They all highlight the diverse landscape of approaches to preventive archaeology across different countries. Especially in the Eastern part of Europe, the dynamics were high, and changes in the way heritage is perceived and protected went in parallel with processes of democratization and introducing capitalist perspectives on the economy and the way markets function.

¹² Predrag Novaković, “Methodological challenges in ‘hostile environments’ of preventive archaeology,” in *Proceedings of the International Conference: Methodology and Archaeometry*, ed. Ina Miloglav (vol. 5, 2019): 9-23.

¹³ *Ibidem*, 14-15.

¹⁴ J.P. Demoule, “The crisis—economic, ideological, and archaeological,” *Archaeology and the Global Economic Crisis: Multiple Impacts, Possible Solutions*, eds. N. Schlanger, and K. Aitchison (Tervuren: Culture Lab Editions, 2010): 13-17; Maria Pia Guermandi, and Kai Salas Rossenbach, eds., *Twenty years after Malta: preventive archaeology in Europe and in Italy* (Istituto per i beni artistici culturali e naturali Regione Emilia Romagna, 2013); Milan Horňák Novaković, Maria Pia Guermandi, Harald Stäuble, Pascal Depaepe, and Jean-Paul Demoule Predrag, eds., *Recent developments in preventive archaeology in Europe. Proceedings of the 22nd EAA Meeting in Vilnius, 2016* (Ljubljana University Press, 2016); Staša Babić, Raimund Karl, Monika Milosavljević, Koji Mizoguchi, Carsten Paludan-Müller, Tim Murray, John Robb, Nathan Schlanger, and Alessandro Vanzetti, “What is ‘European archaeology’? What should it be?,” *European Journal of Archaeology* 20, no. 1 (2017): 4-35.



New financial flows, new organizations, and new practices have generated various disruptions and challenging issues related to trust and responsibility.

In the specific case of Romania, preventive archaeology took a boost due to large infrastructure projects implemented in all regions. These efforts might have been facilitated by an accurate database comprising the archaeological sites, but despite the efforts, a comprehensive and dependable mapping process is yet to be established¹⁵. Also, preventive archaeology could contribute to developing and checking such a database, provided that suitable procedures are formulated and put into practice to this end. Fodorean shows that up to 2019 a new archaeological site has been identified for each 3,5 km. of highway. This figure shows that there is a genuine need for more archaeological excavations. Furthermore, Fodorean underlines the need for a higher number of archaeologists, since Romania reports some of the lowest ratios in the EU in terms of the number of archaeologists in relation to its population, as well as per surface¹⁶.

In addition, recent studies also reveal that most of the archaeological research in Romania is preventive archaeology¹⁷. This evolution is linked not only to a rise of investments in constructions (and thus in archaeological research projects) but also to higher standards and funding required in archaeology, in general. In Romania preventive archaeology is aligned with the principle that the “polluter pays”: in this case, the investor is the polluter¹⁸. Certain political pressures have also been identified, as well as the general exclusion of archaeological sites from landscape planning¹⁹. The feasibility-study phase of infrastructure projects also tends not to consider properly the archaeological dimension of the project²⁰. This results probably not only in a lack of funding but also in a problematic perspective of local decision factors related to the relevance of archaeological

¹⁵ Florin-Gheorghe Fodorean, “How Much Do We Actually Know? A Comparison of the Organization of Preventive Archaeology in Romania and in Europe, 2000–15.” *Public Archaeology* 16, no. 2 (2017): 110-123.

¹⁶ *Ibidem*, 115.

¹⁷ Oberländer-Târnoaveanu, Irina, “Preventive Archaeological Research In Romania—Legal Aspects And Results Dissemination,” *European Preventive Archaeology*, ed. Katalin Bozóki-Ernyey (National Office of Cultural Heritage, Hungary – Council of Europe, 2004), 168-180.

¹⁸ Andrei Măgureanu, and Despina Măgureanu. “Preventive Archaeology in Romania Between Negotiation and Myth: some thoughts,” In *Recent developments in preventive archaeology in Europe: Proceedings of the 22nd EAA Meeting in Vilnius*, eds. Predrag Novaković et al. (Ljubljana University Press, Faculty of Arts, 2016), 257-272.

¹⁹ *Ibidem*, 264.

²⁰ Mihaela Simion, “Motorways and Archaeology: What does it mean to be a contractual archaeologist in Romania,” *Recent developments in preventive archaeology in Europe: Proceedings of the 22nd EAA Meeting in Vilnius*, eds. Predrag Novaković et al. (Ljubljana University Press, Faculty of Arts, Ljubljana, 2016): 277.

heritage. This framework offers increasingly more challenges to archaeologists and even developers since the number and variety of (large) development and infrastructure projects are continuously increasing in Romania. Colțeanu observes that the large infrastructure projects in Romania generally avoid archaeological sites listed in the national registry, the extent of archaeological areas where finds are situated on examined construction sites is relatively low, and although the allocated time for archaeological research across construction sites segments varies, it tends to be short²¹. For correct calculation of costs and time necessary for research, he recommends intrusive diagnosis. The last aspect we mention is that Romanian archaeologists seem to consider that preventive archaeology is seen as an obstacle by investors, as well as by the public bodies, and not as an opportunity for knowledge and development.²²

Increasingly larger infrastructure and development projects lead to additional difficulties for archaeologists and a more flexible approach is needed²³. One observes a growing commercialization of preventive archaeology, with some negative outcomes including on the archaeologists themselves who, despite this evolution, seem to defend a *status quo*²⁴. Watson argues for a more reflexive approach to recording and interpreting the archaeological findings, which would expand the knowledge and access to it, as well as for introducing more theory-driven research agendas even in preventive archaeological projects²⁵.

Having in mind the previous framework and processes, several questions arise: what is the public's perception of preventive archaeology, and to what extent this perception might influence this field? Is it a positive perception due to its contribution to protecting and valorizing the cultural heritage, to safeguarding a community's identity and history for future generations? Is it a negative perception where preventive archaeology is seen as an obstacle to development and progress, a perspective derived from valuing the immediate economic benefits of infrastructure and development investments? Or is it an indifferent one, related to a lack of awareness of the concept and its relevance? Large-scale research has been conducted across Europe, in nine countries, under the EU-

²¹ Petre Colțeanu, "Grand infrastructural projects and preventive archaeology in Romania," *Studia Antiqua et Archaeologica* 21, no. 1 (2015): 87-97.

²² Mihaela Simion, "Motorways and Archaeology: What does it mean to be a contractual archaeologist in Romania," *Recent developments in preventive archaeology in Europe: Proceedings of the 22nd EAA Meeting in Vilnius*, eds. Predrag Novaković et al. (Ljubljana University Press, Faculty of Arts, 2016), 271-280.

²³ Sadie Watson, "Whither archaeologists? Continuing challenges to field practice." *Antiquity* 93, no. 372 (2019): 1643-1652.

²⁴ *Ibidem*, 3.

²⁵ *Ibidem*, 4-5.



funded NEARCH project to better understand this aspect²⁶. This study revealed that most Europeans prioritize researching heritage over continuing constructions when vestiges are uncovered. A quarter of the Europeans responding to the survey consider archaeology a profession, rather than an academic field – which might be linked to a certain visibility of preventive archaeology. The same survey showed that half of the respondents believe that archaeology must not only study but also protect cultural heritage.²⁷

A section of the above-mentioned study was dedicated to preventive archaeology. Only 10% of respondents were confident that they understand this concept, while almost two-thirds declared they do not know what preventive archaeology is, with somewhat higher figures for French, Italians, and Poles²⁸. Once the concept was explained, 92% of the respondents considered that it was useful. The importance placed on preventive archaeology is probably the factor that determined more than half of the respondents to consider that the state is responsible for this. Also, almost a third of respondents consider that archaeological heritage should be preserved.

Methodology

The main aim of the current investigation is to map the perceptions of preventive archaeology, both among the general public and the specialists in archaeology and heritage. Understanding these perceptions might contribute to better communication on this topic and spot the sensitive aspects related to organizing preventive archaeology. We developed a cross-sectional survey, allowing us to capture a current snapshot of Romanians' attitudes and behaviors. Given the dynamics of preventive archaeology and its constant development aligned with the pace of infrastructure and building development, the perceptions of the public might vary in the future.

Considering the context of the research and its explorative aims, we opted for a convenience sample. This induced certain biases derived from the sample structure. Also, since the survey has been distributed mainly on social media, it did not reach the entire population. Most respondents probably are more interested

²⁶ Kornelia Kajda, Amala Marx, Holly Wright, Julian Richards, Arkadiusz Marciniak, Kai Salas Rossenbach, Michal Pawleta et al. "Archaeology, heritage, and social value: Public perspectives on European archaeology." *European Journal of Archaeology* 21, no. 1 (2018): 96-117.

²⁷ Amala Marx, Federico Nurra, and Kai Salas Rossenbach. "Europeans & Archaeology: A survey on the European perception of archaeology and archaeological heritage," *NE-ARCH* (2017). Retrieved from https://hal.science/hal-01581864/file/NEARCH_Europeans_and_Archaeology.pdf

²⁸ *Ibidem*, 38-42, 55-56.

in the topic than the general public and they might think they are more informed. Results might not be generalizable beyond the sample.

The questionnaire includes two sections. The first one measures the perceptions of archaeology in general, while the second one is focused on preventive archaeology. The two composite scales are presented in Table 1.

Table 1. Scales and dimensions measured: Archeology scale and Preventive archeology scale

Dimension	Measurement
Archeology scale*	
Utility	the general usefulness of archeology for contemporary society
Understanding	Archaeology contributes to the understanding of the origins and evolution of humanity, civilizations, etc.
Protection of heritage	Archaeology contributes to the protection of cultural heritage.
Sustainable development	Archaeology contributes to the sustainable development of an area, local or national economy.
Preventive archaeology scale**	
Familiarity	Are you familiar with the phrase „preventive archaeology“?
Investments	Preventive archeology supports economic investment rather than heritage preservation.
Compliance	Many real estate investments do not take into account the correct implementation of preventive archaeological excavations, despite the legal requirements in the field.
Priority	Construction of roads and buildings should be delayed when archaeological remains are found nearby.
Safeguarding	Too few efforts have been made in Romania to save and preserve the archaeological evidence.

* measured with a Likert scale measuring the attitudes from “not at all” (1) to “to a very large degree” (5)

** measured with a Likert scale measuring the agreement from “total disagreement” (1) to “total agreement” (5)

Analysis of findings

Sample

The total valid sample is composed of 379 respondents. Almost 41% are women. This contradicts the usual structure of online convenience sampling which leans towards a predominantly feminine demographic. This suggests that archaeology might be of more interest to men. Two-thirds of the respondents are aged from 35 to 60 years. 85% of the respondents have university degrees with a very good representation of graduates making 55% of the sample. Another sensitive issue of convenience online surveys is the low representation of people with lower education, but the high percentage of graduate students (holding at least a master’s degree) suggests that the interest in archaeology is higher among the most educated. More than 63% of the respondents have no formal studies in



history and/or archaeology. The sample includes respondents from all regions of Romania, but Moldova & Bucovina tend to be less represented while respondents from Bucharest and its metropolitan area compose the largest cluster.

Within the sample, there are two types of respondents. One main cluster comprises “lay” respondents – the general public, while the other one consists of archaeologists, historians, professionals/employees associated with the field of archaeology as well as students in the field – the heritage professionals. The first cluster is comprised of three sub-groups, considering their economic and occupational roles. Group 1 is formed by employees and workers (individuals who are employed by various organizations for wages or salaries that are lower when compared with members of group 2). Group 2 consists of entrepreneurs, self-employed, and other various professionals with more autonomy over their work that may not fit neatly into traditional employee roles (farmers, managers, artists, etc.). Group 3 is formed by unemployed, students, homeworkers, and retired. This occupational stratification will also be retained while analyzing the findings, to determine if there are significant differences among the groups.

Taking into consideration their professional background, we will analyze the two clusters separately and compare them both in terms of perceptions of archaeology and preventive archaeology. Therefore, in Table 2 we present the detailed structure of the two samples.

Table 2. Structure* of the respondent sample

Characteristics		General public	Heritage professionals
Gender	Women	36%	54%
	Men	64%	46%
Age	18-24 years	7%	7%
	25-34 years	19%	18%
	35-44 years	31%	23%
	45-59 years	34%	49%
	60+ years	9%	3%
Studies	Secondary education	1%	-
	Undergraduate studies	35%	13%
	Graduate studies	64%	87%
Training in archaeology	No formal studies	84%	10%
	Formal studies	16%	90%
Residency	Bucharest and the metropolitan area	37%	38%
	Muntenia, Oltenia, Dobrogea	21%	24%
	Moldova, Bucovina	13%	18%
	Ardeal, Maramures, Crisana, Banat	29%	20%

* The data shows the percentage of respondents in each main cluster

Cluster 1, the general public, consists of 274 respondents, while Cluster 2, the heritage professionals, comprises 105 respondents. Interestingly, the general public is better represented by men, while the heritage professionals who answered the survey are in majority women. We also observe that the survey (i.e. its topic) is not so attractive for the youngest and oldest members of the audience, both among the general public and the professionals in the field. Also, the survey did not reach/catch the attention of persons with no university degree. As it was expected, most professionals in heritage have MA and PhD degrees since probably work in research centers, universities, museums, or archaeological institutes. We also observe that all regions are rather well represented in both clusters. One final remark would be that Bucharest and Transylvania + Banat are somewhat better represented in the general public cluster – this might be related to the higher level of investments in infrastructure and development in these regions. Therefore, in these regions, people could be more exposed to preventive archaeology.

Findings

The archaeology scale comprises four dimensions. The mean values obtained for the two main clusters are presented below, in Figure 1.

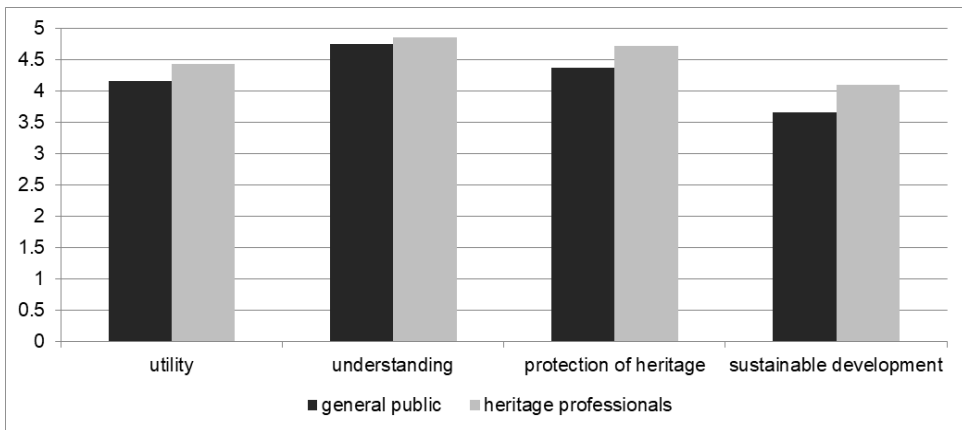


Figure 1. Archaeology scale and its dimensions

All respondents, both lay persons and professionals have a high esteem for archaeology, especially considering its contribution to understanding history. Its practical value, as a contributor to sustainable development, is the least appreciated among the variables considered, but it is still at high values for both clusters. Heritage professionals give higher grades for all dimensions but we need to check if this difference is statistically significant. The overall value of the Archaeology scale is 4.24 for the general public and 4.53 for heritage professionals.

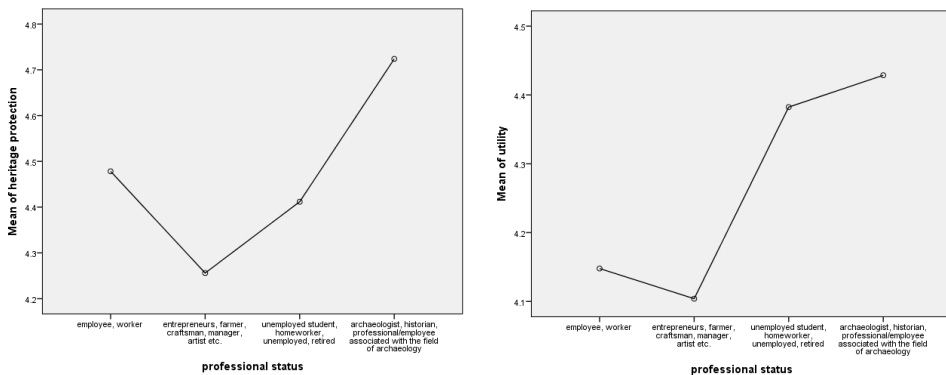
Further, we will present the perspective on archaeology considering all four professional status groups, three associated with the general public and one related to heritage professionals. ANOVA test allows us to see if the differences observed are significant from a statistical point of view (see Table 3).

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
utility * professional status	Between Groups	(Combined)	7.689	3	2.563	3.043	.029
	Within Groups		315.879	375	.842		
	Total		323.567	378			
understanding * professional status	Between Groups	(Combined)	1.586	3	.529	2.033	.109
	Within Groups		97.527	375	.260		
	Total		99.113	378			
heritage protection * professional status	Between Groups	(Combined)	12.608	3	4.203	5.800	.001
	Within Groups		271.729	375	.725		
	Total		284.338	378			
sustainable development * professional status	Between Groups	(Combined)	15.905	3	5.302	3.833	.010
	Within Groups		518.628	375	1.383		
	Total		534.533	378			

Table 3. ANOVA test

The ANOVA test shows that except for the contribution to the understanding of the origins and evolution of humanity, for all the other three items, there are significant differences between groups. The PostHoc tests indicate what differences are significant – the results are presented in Figure 2.



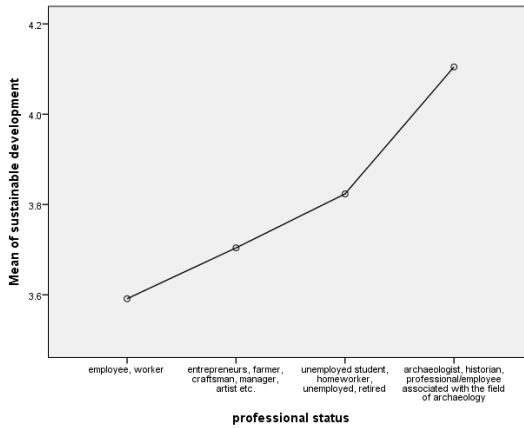


Figure 2. Means plots between utility/ protection of heritage/ sustainable development and professional status

In evaluating all three items (the general utility of archaeology, its role in protecting the heritage, and its contribution to sustainable development) statistically significant differences are observed between the heritage professionals and the first two groups. No significant differences have been registered between the group of those with no occupation and the other occupational groups considered. This might be related to the heterogeneity of this group.

The next step is to perform a similar analysis in the case of the preventive archaeology scale that includes five dimensions. The mean values obtained for the two main clusters are presented in Figure 3.

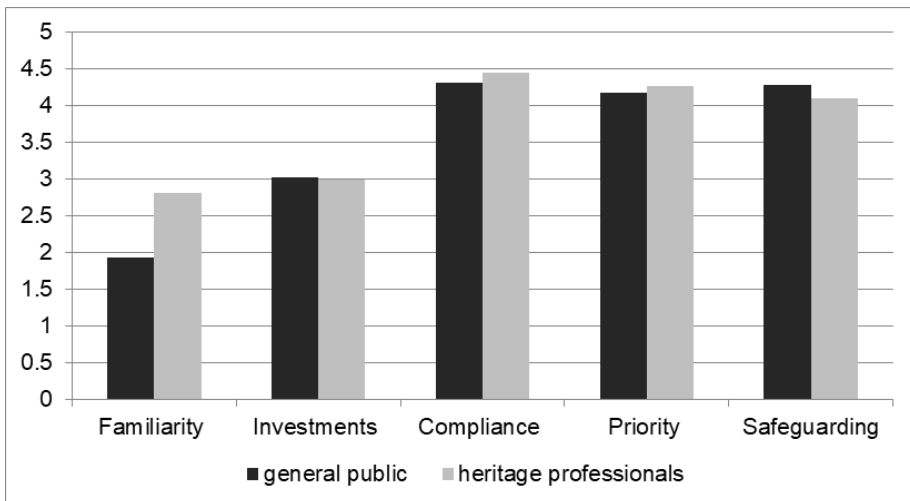


Figure 3. Preventive archaeology scale and its dimensions



We observe a higher homogeneity between the two clusters, except for the first item – familiarity. The mean for the degree of familiarity with the concept of preventive archaeology is relatively low for both clusters, with the general public displaying even a lower figure. It does not necessarily follow that archaeologists are not aware of the significance of preventive archaeology – probably the other professionals in the sample (for instance historians, people working in museums, etc.) are not so familiar with this term. Interestingly, the professionals in the field of heritage believe more than the general public that in Romania some efforts to save and preserve the archaeological evidence have been undertaken. The Preventive archaeology scale is 3.36 in the case of the general public and 3.72 for heritage professionals.

Also, for a better understanding of the perspectives of the various occupational groups investigated, we performed ANOVA tests for all four groups. The only statistically significant difference was registered in the case of Familiarity – documented between heritage professionals and all the other three occupational groups, as presented in Figure 4.

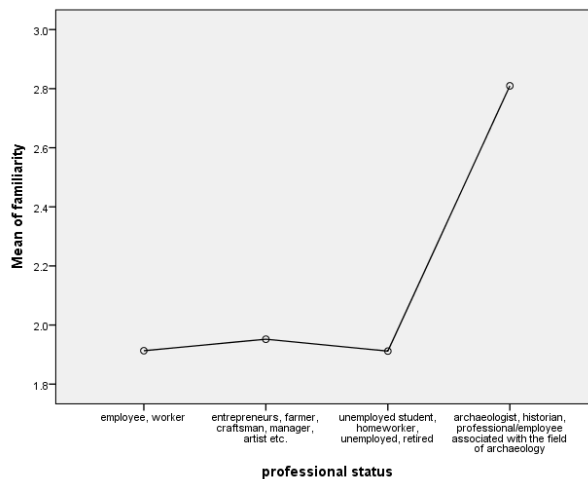


Figure 4. Means plot familiarity and professional status

To better understand the situation we also performed a T-test to see if there are statistically significant differences between men and women in evaluating different components of the Preventive archaeology scale. The test shows significant differences in the case of Familiarity and Priority. In the case of Familiarity, gender influences the opinions of respondents considering the priority of archaeology to investments. Women ($M = 2.05$, $SD = 0.885$) are to a lesser degree than men ($M = 2.26$, $SD = 0.861$) familiarized with the concept of preventive archaeology – the T-test score $t(377) = -2.398$, $p = .017$. In the case of Priority, women

($M = 4.42$, $SD = 0.973$) consider to a wider degree than men ($M = 4.06$, $SD = 1.168$) that "Construction of roads and buildings should be delayed when archaeological remains are found nearby", with a T-test score $t(377) = 3.165$, $p = .002$.

Neither the level of studies nor the previous training in archaeology influences the opinions and perceptions of the respondents. In terms of age, the only statistically significant difference is in the case of Compliance, between the extremes (as visible in Figure 5). The respondents over 45 years tend to consider to a broader degree than the youngest respondents that "Many real estate investments do not take into account the correct implementation of preventive archaeological excavations, despite the legal requirements in the field".

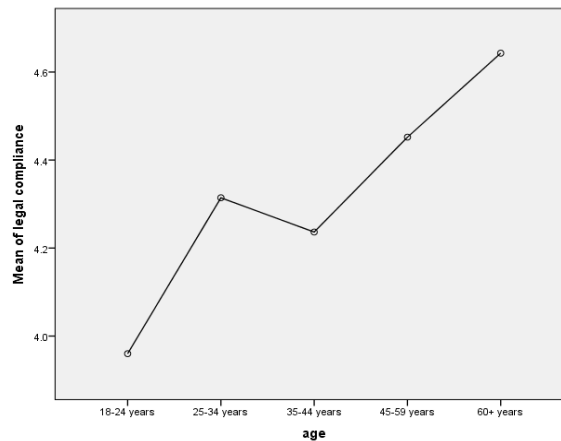


Figure 5. Means plot Compliance and Age

The last check we performed aimed to identify statistically significant differences considering the opinions of respondents residents in various regions of Romania. No significant difference was calculated, although respondents from Ardeal, Maramureş, Crişana, and Banat declare to a wider degree than those from Bucharest and its metropolitan area that they are familiar with the concept of preventive archaeology. Also, people from Bucharest believe to a broader degree than all the other respondents that heritage has Priority before construction. Respondents from South and Eastern Romania believe more than those from Bucharest and its metropolitan area that preventive archaeology supports more economic development than heritage protection. Also, respondents from Transylvania and Banat tend to consider to a wider degree than those from Moldova and Bucovina that many investors do not comply with the legal requirements related to preventive archaeology. Nevertheless, as mentioned before, all these differences are not statistically significant.

For a more refined understanding, we also performed several Univariate Analyses of Variance, in SPSS, for the items associated with the Preventive archaeology scale and considering the Professional status. The results confirm that in the case of Familiarity with the concept of preventive archaeology, Safeguarding, as well as Legal Compliance, age, residency, and gender have no significant relevance inside professional clusters, especially in the case of professionals of heritage which tend to display the greatest homogeneity. In the case of Investment, the statistical results show similar evaluations, but the residency has some influence (not significant) on the opinions of heritage professionals, as shown in Figure 6.

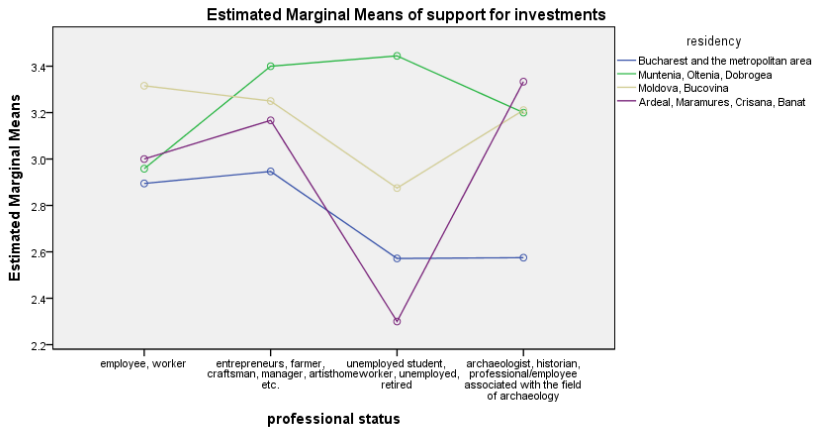


Figure 6. Means plot for Investments, residency*professional status

In the case of Priority, the Univariate Analysis of Variance confirmed that gender is relevant across all professional status clusters, as depicted in Figure 7. Residency and age have no significant relevance inside professional clusters related to Heritage Priority.

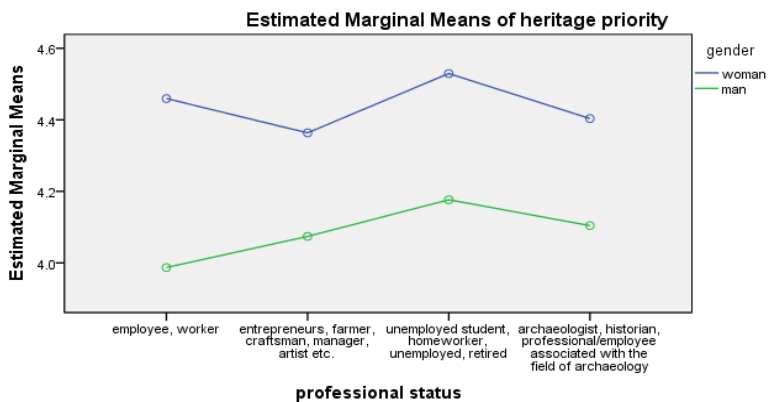


Figure 7. Means plot for Priority, gender*professional status

Conclusions and discussions

Preventive archaeology, as mandated by legislation, serves the purpose of identifying, documenting, and preserving valuable cultural heritage resources before their potential destruction due to development activities. Its primary goal is to strike a balance between development and heritage preservation, being part of the cultural resources management strategies at the national level.

Although it can be restrictive, preventive archaeology is designed to support sustainable development, but it is sometimes viewed with hostility and as an obstacle to development by various segments of the public. Especially developers and investors perceive delays and additional costs which sometimes are unnecessary. Some stakeholders, including professionals in the field, may believe that the emphasis on heritage preservation overlooks the wider societal and economic context.

Nevertheless, preventive archaeology acts as a bridge between heritage preservation and economic progress, highlighting the need for understanding and collaboration among various stakeholders. It should draw more attention not only from public bodies and archaeologists but also from the general public. Awareness and understanding of the importance of preventive archaeology can contribute to a more balanced perspective on its role in development projects. There is a need for effective communication, awareness, and collaboration to address the challenges and maximize the benefits of this practice.

There is a limited body of knowledge on preventive archaeology; therefore the present study is a useful contribution. There is solid evidence indicating that the general European public is not familiar with the concept of preventive archaeology; however, once it becomes acquainted with it, they regard it as very relevant. Nevertheless, the literature explores the nuanced challenges and perspectives surrounding preventive archaeology, ranging from understanding to public support, within the context of heritage preservation and development presenting some difficulties. Especially in Romania, where public bodies and investors seem not to consider archaeological heritage important, dealing with it rather as a legal obligation if it emerges from relatively poorly financed and time-constrained archeological surveys. The literature review also highlights that communication is vital to combat potentially distorted public perception and ensure understanding.

The findings of the research on public perceptions linked to archeology conducted online a convenience sample composed of 379 respondents reveal that participants, including both individuals without specialized knowledge and professionals in the domain of archeology and heritage preservation, hold



archaeology in high regard. Its role in understanding history is particularly valued. At the opposite end, the utilitarian aspect of archaeology, as a contributor to sustainable development, receives the lowest level of appreciation among the evaluated variables. The differences between groups are significant, as shown by the ANOVA test.

When it comes to perceptions of preventive archeology, five dimensions were investigated: familiarity with the concept (familiarity), the relation with investments and infrastructure (investments), the perceived level of compliance with regulations (compliance), the perceived priority when compared to other aims related to infrastructure and realty development (priority), its relevance for safeguarding heritage (safeguarding). Findings point to a high homogeneity between the two clusters (professionals and non-professionals), for all five tested items, except for being familiarized with the concept (that is explained by the group profile). Nevertheless, there are several significant variations when looking into demographic variables, such as gender and age. It results that women are more inclined than men to consider that construction of roads and buildings should be delayed when archaeological remains are found nearby. In terms of age, the only statistically significant difference revolves around perceptions related to the willingness of developers to respect legal provisions when it comes to their obligations towards archeological heritage: people over 45 are to a broader extent inclined to believe that developers don't fulfill their obligations, than younger respondents. Further research correlating the level of trust in businesses and institutions with the above results may provide a broader image.

Assessing the way preventive archaeology is regulated and perceived in Romania helps in formulating messages directed to the general public to shape positive perceptions and to further the understanding of what is at stake when public authorities, research bodies, businesses, and the general audience collaborate toward safeguarding data and heritage items while advancing infrastructure projects. We recommend awareness campaigns, especially among the general public, regarding the utility of archaeology as well as its contribution to sustainable development. All categories of the public should be also more informed on the concept and role of preventive archaeology. It would be also interesting to have a focused investigation on the perception of investors and developers regarding preventive archaeology. This would allow probably for improvements in the regulatory framework, but also tailored communication and training programs for the benefit both of the heritage and local development.

List of illustrations

- Table 1. Scales and dimensions measured: Archeology scale and Preventive archeology scale
Table 2. Structure* of the respondent sample
Table 3. ANOVA test
Figure 1. Archaeology scale and its dimensions
Figure 2. Means plots between utility / protection of heritage / sustainable development and professional status
Figure 3. Preventive archaeology scale and its dimensions
Figure 4. Means plot familiarity and professional status
Figure 5. Means plot Compliance and Age

Rezumat

În ultimele două decenii industria construcțiilor din România a avut un impact semnificativ asupra lucrărilor de infrastructură mare, a peisajului general și a zonelor urbane, contribuind, ca o consecință secundară și la creșterea activităților de cercetare prin intermediul arheologiei preventive. Studiul de față își propune să exploreze percepțiile publicului atât asupra arheologiei, cât și asupra arheologiei preventive, și a fost realizat online, pe un eșantion de conveniență cuprinzând profesioniști din domeniul arheologiei și domenii conexe, cât și persoane ale căror profesii nu implică astfel de activități. Scopul principal al studiului este de a contribui la o mai bună cunoaștere a situației actuale, având în vedere faptul că percepțiile publicului se schimbă în timp, iar subiectele de nișă, cum este și arheologia preventivă, prezintă un set specific de provocări atunci când devin subiectul comunicării publice.

Cuvinte cheie: percepție publică, arheologie, arheologie preventivă

Silviu ANGHEL, University of Bucharest, Romania.

E-mail: silviuangel2011@yahoo.com

Alexandra ZBUCHEA, National University of Political Studies and Public Administration, Bucharest, Romania.

E-mail: alexandra.zbucnea@facultateademangement.ro

Monica BÎRĂ, National University of Political Studies and Public Administration, Bucharest, Romania.

E-mail: monica.bira@comunicare.ro