

The preferences of residents and tourists for cultural and architectural heritage in a rural landscape: The case of Zlatna Greda, Croatia

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Abstract

Rural areas of the Republic of Croatia are experiencing abandonment, which is especially intensive in the eastern part of the country. This paper aims to provide insights into places with specific spatial and functional characteristics, pustara settlements, within the rural landscape of the Baranja region, presenting their cultural and architectural heritage that needs comprehensive protection and conversion. The redevelopment potential, as well as the negative significance of abandonment of these sites, indicates the need for identifying the characteristics of these settlements: the tangible value of its built facilities and open spaces, its movable cultural heritage, as well as its intangible values. The main objectives were to determine desirable tangible and intangible pustara values by investigating place attachment among former pustara residents, and to provide information on domestic tourists' preferences in visiting these settlements. The results indicate a common preference among former pustara residents and tourists for its architectural heritage: e.g. its settlement as a spatial unit and its parks. Additionally, tourists expressed preferences for recreational and entertainment facilities. Common interests, as well as highly expressed needs among former inhabitants and tourists, present the basis for establishing new functions and redevelopment plans.

Keywords: cultural and architectural heritage, pustara settlement, place attachment, tourist motivation, adaptive reuse, Baranja rural landscape, Croatia

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1. Introduction

The state of small settlements in predominantly agricultural landscapes represents an important issue of the sustainability of the landscape. Recent international documents have emphasised the maintenance of viability and vitality in rural settlements (EU Action for Smart Villages, 2017; Cork Declaration, 2016).

In the research arena, the dynamics of the occurrence and disappearance of the functions of rural areas were monitored through regional-level studies, and the results revealed two trends. Rural areas that are more resilient, more adaptive and where changes in the economy of the village do not result in drastic modifications and the disappearance of the villages, reflect diversification of functions, population growth, the phenomenon of second homes, and the urban-rural weekly rhythm dynamics. In this scenario, urban people in their free time seek contact with the natural landscape, traditional culture and a healthier life. On the other hand, a continuous decrease in activity and in the number of people shows a negative trend resulting in disappearing settlements, the

aging of the population, a decline in social networks, changes in the supply and services of the village, as well as a decline in the physical structure (Lasanta et al., 2017; Lasanta, Nadal-Romero and Arnáez, 2015). Land abandonment represents one of the major land-use changes in Europe since the turn of the 19th century, mostly in extreme geographic environments (such as mountains and semi-arid areas), and more recently in agricultural landscapes as well (Alcantara et al., 2013; Lasanta et al., 2017; Lasanta, Nadal-Romero and Arnáez, 2015; Pedrolí, Antrop and Pinto Correia, 2013).

Among Eastern European countries, Pointereau et al. (2008) have pointed out that farmland abandonment is especially due to the impact of historical changes and economic factors, claiming that the transition to free-market economies is the main driver of farmland abandonment. Pedrolí, Antrop and Pinto Correia (2013) also claim that the two main drivers for landscape change are the market policy agenda and the sustainability policy agenda. According to a recent global economic analysis, Croatia is a high-income country with a “steady growth momentum” (WBG, 2017)

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and belongs to the group of countries that rely on external funding. Declining rural populations in Croatia have been a continuing trend from the late 1990s, while the degree of urbanisation shows a positive trend (Eurostat, 2016). Our study area is situated in this national socio-economic and environmental context, in the eastern part of the country.

Croatia signed and adopted the European Landscape Convention (ELC, Council of Europe, 2000) in 2003, which defines landscape as an area perceived by people, whose character is the result of the action and interaction of natural and/or human factors (Article 1a). This broad concept of landscape embraces not only the natural elements but also the people (Philips, 2015). The question is: What do we perceive in landscapes and what can we “read” from interactions with it? As Greider and Garkovich (1994) elaborate, landscapes are symbolic environments that extend beyond aesthetics and scenery, localities in which we inscribe our beliefs and values and then again define ourselves with regard to place and space. The phenomenon of perceiving landscape differently has already been presented in several studies on perceiving the rural environment as wilderness and nature (Buijs, 2009; Buijs et al., 2012). The cultural construct of natural elements and the landscape reveals the need for assessing landscape perception with regard to local history, different stakeholders, groups and interests.

Therefore, the present study will interpret nature and natural elements as open space within the dichotomy of human-made space that tourists tend to visit during a vacation for bonding with nature. The term “rural landscape” mainly referring to landscape as defined in ELC, will be used in terms of visual perception, taking in the notion that most Europeans perceive landscape as containing a human or cultural element (Council of Europe, 2000). As seen in the study by Jacobsen and Tommervik (2016), there can be two reasons for essential tourist activities: sightseeing; and an intention to study the values and motives attached to the physical assets of the abandoned settlement or landscape.

The focus of this research is on the potential benefits of tourism for specific settlements in the eastern part of Croatia, *pustara settlements* that are gradually being abandoned. A *pustara settlement* is a planned agricultural settlement, built at the turn of the 19th century, and situated in Osijek-Baranja County in the eastern part of Croatia. These settlements differ from traditional Slavonian villages in terms of their spatial organisation, the appearance of the built environment, infrastructure and the existing facilities. The nearly 50 families that lived in the *pustara settlement* had better living conditions than those in

traditional villages (Bošnjak, Stober and Brkanić, 2015). Settlements contained administrative buildings, residential buildings for workers, public and industrial buildings, and, according to plans, areas for recreation and green infrastructure organised mostly across an orthogonal street line (see Figs. 1a and 1b). The network of *pustara settlements* was interconnected by a narrow-gauge railway. These settlements form a significant physical element in the rural landscape, and they carry great architectural, spatial, historical and cultural values. The population that holds the culture and memory of the settlements has since long located away from the settlements, but retains their memory by organising and gathering in informal associations. The overall negative trend is a common feature of every *pustara settlement*. If measures are not taken for their protection and re-use, they will disappear.

Such redevelopment potential, as well as the negative significance of abandonment of *pustaras*, indicates the need for identifying the characteristics of these settlements: the value of built facilities and open spaces (immovable cultural heritage); movable cultural heritage; and intangible cultural heritage (Act on the Protection and Preservation of Cultural Heritage, 2017). Using investigations of place attachment among former *pustara* residents, the objective of this research is to determine preferences for the type of heritage rooted in the social, cultural and environmental attributes of these communities, so that elements of the tangible and intangible heritage of the settlement can be identified and protected. A second objective of this project is to provide information on tourists’ reasons for visiting a *pustara settlement*, as well as their motivations and preferences for travelling: such information can lead to the planning of diverse services for tourists at these sites.

Our research questions were as follows:

- i. Can place attachment among former *pustara* residents be identified?
- ii. Are there any *pustara* constitutive characteristics and parts that can be identified to be of common interest to former inhabitants and tourists? And
- iii. What kind of tourist motivations can be found among tourists visiting a *pustara settlement*?

The results of two empirical studies are presented here. The first one was conducted with former residents gathered by a non-governmental organisation to speak about their memories of *pustara settlements*; and the second one was conducted with tourists in the Zlatna Greda, an example of a revitalised *pustara settlement* in Baranja, Croatia. The main



Fig. 1: Scheme of the *pustara Mirkovac* (a) and an aerial view of the *pustara Mirkovac* (b)
Sources: a) authors’ drawing; b) HAVC Filming in Croatia

focus is on the former residents' and visitors' perceptions and preferences for a *pustara settlement's* constitutive elements and its formerly identified values (Bošnjak, Brkanić and Stober, 2015). The study aims to highlight the importance of research on different stakeholders' preferences, which can influence the future development of the place and consequently its space representation, its landscape.

2. Theoretical background

2.1 Place attachment

The term “place attachment” is a concept in environmental psychology that generally explores links between people and places. According to Giuliani (2003), an affective bond with places was first mentioned by Fried in 1963. The scope of research on this topic has been explored by numerous scientists from different fields (e.g. Altman and Low, 1992; García-Martín, Plieninger and Bieling, 2018; Giuliani, 2003; Gross and Brown, 2008; Huber and Arnberger, 2015; Lu, Lin and Yeh, 2018; Manzo and Perkins, 2006; Prayag and Del Chiappa, 2016; Ramkissoon, Smith and Weiler, 2013; Scannell and Gifford, 2010; Stefaniak, Bilewicz and Lewicka, 2017), and hence it can be defined as highly interdisciplinary. Altman and Low (1992) conducted a study in which they established different research frames rooted in different disciplines. They also considered attachment to a variety of places (e.g. homes, neighbourhoods, plazas, landscapes) and at all life stages (e.g. childhood, middle years and later years). Manzo and Perkins (2006) stated that negative emotions could provide a good understanding of place attachment. Further, Scannell and Gifford (2010) defined place attachment as a three-dimensional person–process–place framework to be used in theoretical and practical domains.

On the contrary, Lu, Lin and Yeh (2018) categorised the characteristics of place attachment under three other dimensions: personal context, community context and environment context. In addition, our literature review has shown two important factors describing the term “place attachment”: place dependence and place identity (Gross and Brown, 2008; Huber and Arnberger, 2015; Prayag and Ryan, 2012; Ramkissoon, Smith and Weiler, 2013). According to Prayag and Ryan (2012) and Ramkissoon, Smith and Weiler (2013), for example, place identity has the strongest impact on the term place attachment. Lu, Lin and Yeh (2018) found that personal context is the best criterion for place attachment. In contrast, García-Martín, Plieninger and Bieling (2018) learned that place attachment is linked to a desire to participate in making decisions about the local landscape. Within the last two decades, there has been an increasing number of studies on place attachment, with many of them using questionnaires to collect data and produce new knowledge (García-Martín, Plieninger and Bieling, 2018; Huber and Arnberger, 2015; Lu, Lin and Yeh, 2018; Prayag and Ryan, 2012; Stefaniak, Bilewicz and Lewicka, 2017). Over the last few years, there has also been an increase in research on place attachment related to tourism (Gross and Brown, 2008; Lu, Lin and Yeh, 2018; Prayag and Del Chiappa, 2016; Prayag and Ryan, 2012; Ram, Björk and Weidenfeld, 2016; Ramkissoon, Smith and Weiler, 2013; Yuksel, Yuksel and Bilim, 2010). Moreover, they (e.g. Gross and Brown, 2008; Prayag and Del Chiappa, 2016; Yuksel, Yuksel and Bilim, 2010) have used structural equation modelling to analyse data collected from questionnaires, which is the same approach used in research on place attachment.

The link between the term “place attachment” and time was researched over the last decade in studies such as Hernandez et al. (2007), Smaldone (2006), Smaldone, Harris and Sanyal (2005), which investigated the correlation between time and place attachment in the context of time spent in a specific place. These studies confirmed that people who stayed longer in a certain place or had made several visits to the same place, are more attached to the place. Hernandez et al. (2007) found that place attachment evolves before place identity. The life stages of involved stakeholders are also connected to place attachment (Smaldone, 2006); that is, every period in people's lives can be associated with a particular place. In research by Kyle, Mowen and Tarrant (2004), it was suggested that adding energy to a place by performing hard labour or intense activities in the place, forms stronger bonds between people and places. The main wellhead of data and understanding of place attachment in the context of time were questionnaires, followed by statistical analysis (Hernandez et al., 2007; Smaldone, 2006; Smaldone, Harris and Sanyal, 2005).

2.2 Tourist motivation and heritage

Information on tourist travelling preferences, especially reasons for travelling and desirable destinations, may be useful when predicting the tourist potential of a specific location. During the first two decades of the twenty-first century, tourist motivation was widely studied in general by Antón, Camarero and Laguna-García (2014), Farmaki (2012), Lee (2015) and Pratminingsih, Rudatin and Rimenta (2014). Poria, Butler and Airey (2004) and Poria, Reichel and Biran (2006) studied tourist motivation with regard to heritage. Antón, Camarero and Laguna-García (2014) and Pratminingsih, Rudatin and Rimenta (2014) examined the effects of previous experiences and influences of destination image and motivation on tourists' revisit intention, correlated with satisfaction. Lee (2015) obtained results about tourist motivation in closed spaces, specifically in an old railway station converted into a restaurant. This study, also based on questionnaires and descriptive statistical analysis, showed that nostalgia was the key link between personal emotions and memorable experiences. Farmaki (2012) examined rural tourist motivation to further enhance understanding of rural tourism by utilising unstructured interviews.

In addition, Farmaki (2012) divided tourists into three groups: (i) purpose of travel, (ii) interests and (iii) the level of interaction with the rural environment, and discovered that no tourists, whether domestic or foreign, visited a rural area for its authenticity or traditionalism. Instead, the main reason for visiting a rural area was to interact with nature or wilderness, or for its “rural idyll” (Buijs, 2009). Poria, Butler and Airey (2003, 2004) and Poria, Reichel and Biran (2006) investigated tourist motivation with regard to heritage sites. Their studies were based on statistical analysis using data collected from surveys. The first study (Poria, Butler and Airey, 2003) showed that motivation, behaviour and perception are all factors connected to the development of the image of the site. In other words, people with emotional links to a site will revisit the site. In their next study, Poria, Butler and Airey (2004) investigated the reasons for tourist intentions to visit places with heritage attributes. The reasons were divided into three groups on the basis of motivation: (i) heritage experience; (ii) learning history; and (iii) recreational experience. They found that tourists' perceptions of a heritage place's characteristics are more important than the actual characteristics of the site. They also found that tourists like to learn about their own heritage. In

a following study, Poria, Reichel and Biran (2006) discovered an interconnection among tourists, heritage and visiting sites. They split tourist motivation according to specifics into three groups: (i) willingness to feel connected to the history presented; (ii) willingness to learn; and (iii) motivation not linked to the historic attributes of the destination. People show more interest in a visiting a site if they can recognise the site as being a part of their own heritage.

The literature on landscape perceptions among tourists shows two models based on preference for prototypes and preference for differences (Fyhri et al., 2009). This aspect is fundamental to the case study of *pustara settlements* as they present a unique spatial representation. The aim of this study is to explore the main preferences of former residents and to attempt to link expressed values with the physical representation of the settlement.

3. Study area

3.1 The regional context of the *pustara settlements*

Baranja is a geographical territory in eastern Croatia that covers an area of 30,000 hectares. The area lies between the river bodies of the Danube and the Drava River. It is

characterised by lowland, and land use is predominantly agriculture (48% of the total area). The area is a part of the Danube-Drava-Mura UNESCO biosphere reserve as well as the Balkan Green Belt¹ and NATURA 2000². Some 40,262 residents (CBS, 2017) are distributed in one town and eight small municipalities. Demo-geographic changes in the Baranja rural area have become intense over time, and these were attributed to the border position of the region, its multi-ethnic population, its macro location and the geographic phenomena of the Danube and the Drava that change this space with their water bodies.

Presently, the Baranja area has experienced intensive polarisation of the space around the infrastructure corridor in the north-south direction. Locations in traffic-friendly places over time became the centres of an increasingly strong exchange of goods and services and places of major and numerous functions. Almost half of the total population of Osijek Baranja County (40.52%) is concentrated in the central part of geographic “triangle,” along with the main road and the railway infrastructure (CBS, 2017; see Fig. 2). The rest of the “triangle” has experienced “sociodemographic depression” (Lončar-Vicković and Stober, 2010; Šašlin, 2005). The *pustara settlements* are found in the remaining area.

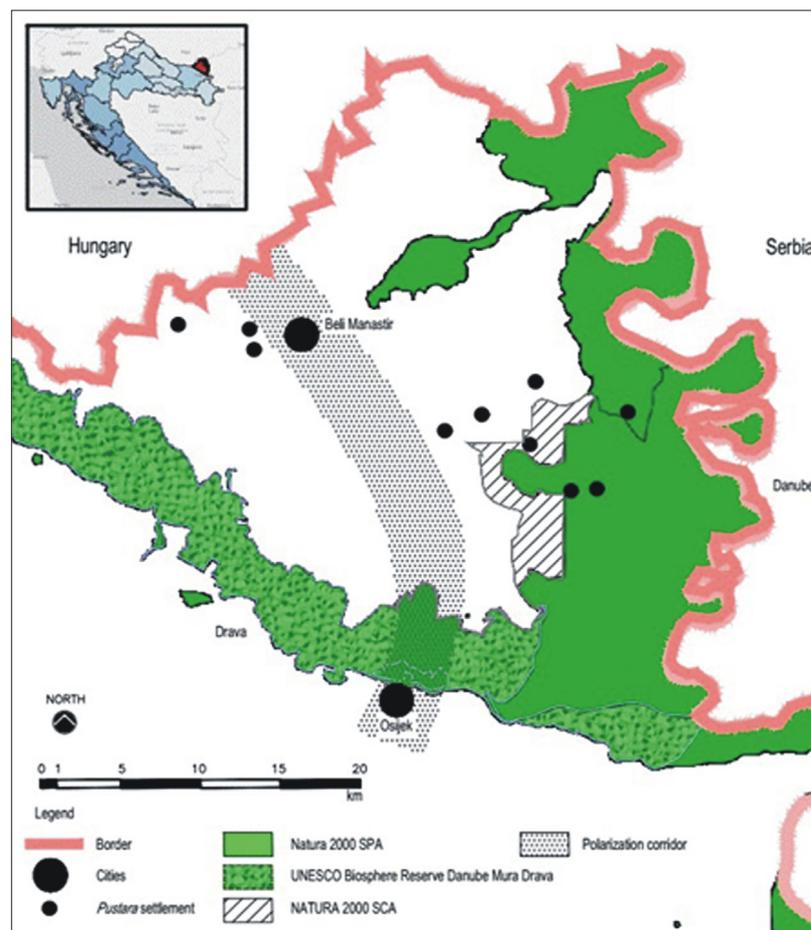


Fig. 2: Map of Baranja Region in Eastern Croatia (top left) with the *Pustara Settlements Network*
Source: Map Guide of The Osijek Baranja County, authors' adaptation

¹ The Balkan Green Belt is the southern part of the European Green Belt that includes nature conservation activities in the territories from northern Europe to the Black Sea in the south. This is also the area of the former Iron Curtain, which forms a corridor of habitats for an exceptional diversity of species, ancient forests and swamps, traditionally cultivated landscapes, wild mountain ranges and riverscapes (EURONATUR, 2018) (www.euronatur.org, last accessed June 14, 2018).

² NATURA 2000 is the ecological network of protected areas in the EU and the largest coordinated network of conservation areas in the world (MZOIP, 2018). (<http://www.mzoip.hr/hr/priroda/ekoloska-mreza-natura-2000.html>, last accessed June 14, 2018).

3.2 Case study: Zlatna Greda

Zlatna Greda is located close to the eastern Croatia-Serbia border near the Danube River. According to the last census 2011 (CBS, 2017), only five people permanently live in Zlatna Greda, which represents one of some 70 locations specified as *pustara settlements*. A good revitalisation practice can be seen in the new usage of the administrative building in Zlatna Greda, used by the Eco Centre. The building has been restored following the orders of the conservation service led by the Ministry of Culture of Croatia, suitably converted and equipped so that it represents a potential core for the future restoration and revitalisation of the entire complex. The area of the whole *pustara settlement* (see Fig. 3a) was declared a protected cultural good of the Republic of Croatia in 2011. An association for protecting nature and the environment – “Green Osijek” – has, since 2003, developed programs in Zlatna Greda for preserving natural resources and the traditions of the Middle Danube area. They organise educational visits to nature parks according to the principles of eco-tourism. Activities are centralised in the completely revitalised administrative building: the House in Nature Zlatna Greda.

The ground floor of the old administrative building has been reconstructed to house a restaurant as well as a conference hall, while the loft of the building contains accommodation facilities. In the park surrounding the building, there is an adrenaline park and a children's playground (see Fig. 3b). The re-purposed administrative building is a healthy core for future renewal and revitalisation of the entire complex.

In the year 2016, Zlatna Greda had approximately 6,000 tourists. Up to September 2017, there were 2,800 tourists who were registered for any one of the activities (staying overnight, using the adrenaline park, as guests in the restaurants, etc.) and 4,000 tourists that only used the open spaces: walkers, cyclists, etc. (Dinko Pešić, Eco Centre Zlatna Greda, personal communication, September 5, 2017).

4. Methods

Previous research has highlighted the need for preservation of the material testimonies of *pustara settlements*, as well as the intangible heritage left behind by former residents (e.g. Bošnjak, Stober and Brkanić, 2015). Detailed interviews also pointed to a strong collective memory connected to the past social life in the settlement. In this paper, we discuss place attachment to *pustara settlements* among former residents, in order to argue for the preservation of these settlements and to identify valuable elements of the location

to be preserved in the development plans. Place attachment is a measure of the psychological bonds that people form with places (Huber and Arnberger, 2015; Kaltenborn, 1998; Kyle, Mowen and Tarrant, 2004; Williams and Vaske, 2003). Tourist motivation is defined as the reason to visit an in situ representation of heritage sites with a distinctive perception of it (Poria, Butler and Airey, 2004). Tourist motivation is used as a tool for determining tourist preferences in visiting *pustara settlements* and those *pustara* characteristics that appeal to them. These data can serve as input information when selecting suitable tourist services for these spaces.

The data collected for the project and the analytical procedures used, can be summarised as follows: categorical data are represented by absolute and relative frequencies; for numerical data, the median and the interquartile range are used; the normality of distributions of numeric variables was tested using the Shapiro-Wilk test; differences between numeric variables of the two independent groups were tested using the Mann-Whitney U test, and among three and more groups using the Kruskal-Wallis test. All p values are two-sided, with level of significance set at $\alpha = 0.05$. For statistical analysis, the statistical program MedCalc Statistical Software version 14.12.0 (MedCalc Software bvba, Ostend, Belgium; <http://www.medcalc.org>; 2014) was used.

4.1 Data collection

Research was conducted using two studies:

1. among former *pustara* residents, and
2. among *pustara* tourists.

The first study included two non-governmental groups: “*Pustara roots*” (in Croatian: *Korijeni pustare*) and “*Pustara residents*” (in Croatian: *Pustaraši*), established in 2012 and 2013 ($n = 57$ respondents). A questionnaire survey was carried out using a network link that was available on the social network of the non-governmental groups from March 2015 to August 2016. The small number of respondents can be explained by the fact that the respondents present a specific group with narrow interests. The second study was conducted on site in Zlatna Greda, from June 2016 to June 2017. Structured questionnaires were used and distributed in printed form by hand to *pustara* tourists ($n = 124$ respondents).

4.2 Questionnaire survey

Two different questionnaires in the Croatian language were provided, one for former *pustara* residents and the other for *pustara* visitors. The first questionnaire asked former



Fig. 3: a) Aerial view of Zlatna Greda, b) Photograph of the administration building with the adrenaline park
Sources: a) HAVC Filming in Croatia; b) Eco Centre Zlatna Greda, with permission

pustara residents for socio-demographic data, as well as information related to their life spent in the *pustara* (when, how long, working or not, etc.). Additionally, questions were asked about their preferences for the heritage type linked to *pustara*, and place attachment. Place attachment was measured by 13 items that revealed place identity, place dependence and family legacy identity (according to Kil et al., 2012; Williams and Vaske, 2003): responses were scored on a five-point Likert scale, where 1 represented “Strongly disagree” and 5 represented “Strongly agree.” Open questions on associations with the *pustara*, as well as additional comments provided the basis for a qualitative analysis on memory holdings rooted in the social, cultural, and environmental attributes of their former community.

The second questionnaire was based on previous research about the links among tourists, heritage and reasons for visiting heritage sites. Tourist motivation was measured by 17 items for three sub-dimensions: heritage/emotional experience; recreational experience; and cultural/educational experience (according to Poria, Butler and Airey, 2004). Responses were coded on a five-point Likert scale where 1 represented “Strongly disagree” and 5 represented “Strongly agree.” Open-ended questions provided qualitative data on tourists’ knowledge about the *pustara* and their preferences about the interests of the *pustara settlement*. The questionnaire asked for socio-demographic data as well.

4.2.1 Sample 1 – Pustara settlements residents

The gender and age distributions of the sample showed that 57% of the respondents were female and about 61% of respondents were 45 years and older (Tab. 1). Almost 90% of respondents had lived in the *pustara settlement*, although only 28.1% of them were born there. Over one half of the respondents (51%) had spent only their childhood in the

Variable		N	%
Gender	Male	24	42.9
	Female	32	57.1
	Total	56	
Age	Less than 45	22	38.6
	45 and more	35	61.4
	Total	57	
Continues to live in <i>pustara</i>	Yes	6	10.5
	No	51	89.5
	Total	57	
Time spent at <i>pustara</i>	< 5 years	2	4.1
	5–10 years	8	16.3
	11–15 years	9	18.4
	> 15 years	30	61.2
	Total	49	
Life period spent in <i>pustara</i>	Childhood	25	51.0
	Childhood and adulthood	6	12.2
	Only adulthood	18	36.8
	Total	49	
Worked in <i>pustara</i>	Yes	30	54.5
	No	25	45.5
	Total	55	

Tab. 1: Characteristics of respondents (former residents – survey 1). Source: authors’ survey

pustara settlement (under 18 years of age), while more than 36% of them lived there only as an adult. Only one tenth of respondents spent a major part of their life in the *pustara settlement* (their childhood and most part of their adult life) and 55% of all respondents worked in the *pustara*. More than half of them lived in the *pustara settlement* for more than 15 years while only one tenth of respondents continued to live there.

4.2.2 Sample 2 – Visitors to Zlatna Greda *pustara settlement*

The tourist group sample contained a relatively equal gender distribution, as 55% of the respondents were female. About 79% of respondents were younger than 45 years (see Tab. 2). The sample contains predominantly domestic residents: four of five respondents live in Osijek-Baranja County. There were four foreign tourists whose responses were retained in the sample because they are citizens of the Republic of Serbia, and they live a short distance from the *pustara settlements*; in a way, the *pustara settlements* are also a part of their heritage. Most of the respondents (90.2%) came to the *pustara settlement* for a purpose, but only 63.5% of them had previous information on *pustara settlements*. Among those respondents who did not have any previous knowledge about the *pustara*, 73.8% of them live in nearby areas.

5. Results

5.1 Place attachment and heritage preferences

All former residents (n = 57) showed a rather high level of attachment toward the *pustara settlement* (Tab. 3) and three factors were confirmed based on previous research (place identity: Cronbach α = 0.986; place dependence: Cronbach α = 0.714; family legacy identity: Cronbach α = 0.940).

Variable		N	%
Gender	Male	55	45.1
	Female	67	54.9
	Total	122	
Age	less than 25	19	15.5
	25 - 34 years	45	36.6
	35 - 44 years	34	27.6
	45 - 54 years	9	7.3
	55 - 64 years	10	8.1
	65 and more	6	4.9
	Total	123	
Place of residence	Osijek Baranja County	88	80.0
	Croatia	18	16.4
	Europe	4	3.6
	Total	110	
Pustara was a trip destination	Yes	110	90.2
	No	12	9.8
	Total	122	
Knowledge of <i>pustara</i>	Yes	73	63.5
	No	42	36.5
	Total	115	

Tab. 2: Characteristics of respondents (tourists – survey 2) Source: authors’ survey

Place attachment item	Mean	SD	Median IQR
<i>Pustara settlement</i> is special to me.	4.26	1.395	5 (4–5)
I feel that the <i>pustara settlement</i> is a part of me.	4.14	1.493	5 (4–5)
I am very attached to the <i>pustara settlement</i> .	4.05	1.444	5 (4–5)
<i>Pustara settlement</i> holds a lot of meaning for me.	4.04	1.488	5 (4–5)
I identify strongly with the <i>pustara settlement</i> .	3.96	1.488	5 (3–5)
No other place can be compared with the <i>pustara settlement</i> .	3.95	1.274	4 (3–5)
<i>Pustara settlement</i> is the best place to be in.	3.70	1.401	4 (3–5)
<i>Pustara settlement</i> is the best place for doing what I like.	3.65	1.408	4 (3–5)
I prefer spending time in <i>pustara</i> to spending time at any other place.	3.44	1.363	4 (3–5)
<i>Pustara settlement</i> is a special place for my family.	4.18	1.351	5 (4–5)
Many important family memories are tied to the <i>pustara settlement</i> .	4.30	1.239	5 (4–5)
My family's history is strongly tied to the <i>pustara settlement</i> .	4.14	1.246	5 (4–5)
<i>Pustara settlement</i> contributes to the character of my family.	4.04	1.267	5 (4.5–5)

Tab. 3: Descriptive statistics: Mean and median for place attachment items (response scale: 1 = “Strongly disagree” and 5 = “Strongly agree”; [n = 57]). Source: authors' survey

Statistically, a significant difference was confirmed only for one association, factor dependence on the *pustara* and working in the *pustara* (Mann–Whitney U test $p < 0.01$). The group of respondents that worked in the *pustara* expressed higher responses for items related to the dimension of dependence linked to *pustara*, while others rated items with scores closer to the median. Some other expected relations were confirmed as significant, although without statistical significance. Male respondents rated all place attachment items higher than did female respondents, and more years of living spent in the *pustara* was a predictor for higher ratings for all items (Tab. 4).

These results demonstrate the overall strong place attachment of former residents and the strongest median ratings for the sub-dimension of family legacy identity (Tab. 4).

5.2 Former residents' preferences related to *pustara* heritage

The analysis of the former residents' preferences related to *pustara* heritage showed that 45 (79%) respondents expressed the need for protecting the entire settlement. The need for the protection of landscape elements within the settlement was confirmed by 19 (33%) respondents (see Fig. 4). Results of the survey highlight the need for research on not only documents and letters by 44 (77%) and photographs and films by 41 (72%) respondents, but also on other tangible heritage. Regarding intangible heritage, 47 (82.5%) respondents emphasised the need for protection of customs, rituals, and ceremonies, 44 (77.2%) oral traditions and stories, and 30 (52.6%) knowledge and

skills. All respondents considered the need to establish a museum related to *pustara settlements*: 46 (80.7%) of them chose the *pustara settlement* as the ideal location for the museum, while only 6 (10.5%) considered the City of Osijek as a better option.

5.3 Tourists' travel preferences

To determine the target group of *pustara* tourists, a comparison of travel preferences was made between Croatian residents and *pustara* visitors. Croatian residents prefer travels that include visits to relatives and friends (35.6%), vacation at the seaside (21.1%), and city breaks, excursions, culture, and entertainment (13.1%). On the other hand, among the listed options, *pustara* visitors chose mostly city breaks, excursions, culture, and entertainment (17.0%), followed by vacation at the seaside (15.7%), gastronomy and enology (14.9%), and recreational activities (13.3%) (see Fig. 5). When compared to results from a representative sample, this study sample differed greatly. *Pustara* visitors expressed their reasons for travelling as being mostly related to sports and recreational activities, events, festivals and gastronomy and enology, than the average. The most obvious difference is in the reason visit to relatives or friends, which was rather low among *pustara* visitors and quite high for the representative Croatian sample.

5.4 Tourist motivation in visiting *pustara* settlement

To address the research problem, it was necessary to investigate the relationship between tourists' general motivation for travel and motivation for visiting the *pustara*

Sub-dimensions of place attachment	Median (IQR)				Total	P*
	Number of years of living in the <i>pustara</i> settlement					
	< 5	5–10	11–15	> 15		
Place identity	3.9 (2.9–3.9)	4 (2–5)	5 (4.4–5)	5 (4.6–5)	5 (4–5)	0.20
Place dependence	3.2 (2.3–3.5)	3.3 (2.5–4.1)	3.8 (3–4.2)	4.1 (3.2–4.3)	3.8 (3.1–4.2)	0.33
Family legacy identity	4 (2.8–4.1)	4.3 (3.6–5)	4.3 (3.7–5)	4.9 (4–5)	4.5 (3.8–5)	0.56

Tab. 4: Median rates for sub-dimensions related to the number of years of living in the *pustara* (* Kruskal–Wallis test) Source: authors' survey

settlement. The results of the research on motivation to travel provided insights into the group of tourists that generally travel and seek excursions, culture, entertainment, and sports and recreational activities.

The mean ratings for motivation items presented the following results: most of the respondents came to Zlatna Greda because they wanted to spend the day outdoors, have fun, and relax, and very few came incidentally. They did not visit the location because (a) it was a part of their heritage, (b) they felt that the *pustara settlement* had to be visited, or (c) the entry was free. The motivation to visit because of ‘the historic story of the settlement’ was also low; however, the motivation was high in wanting to know more about the place and the character of the area (see Tab. 5). Among the respondents, 63.5% of them had prior information about the *pustara settlement*, while the rest of

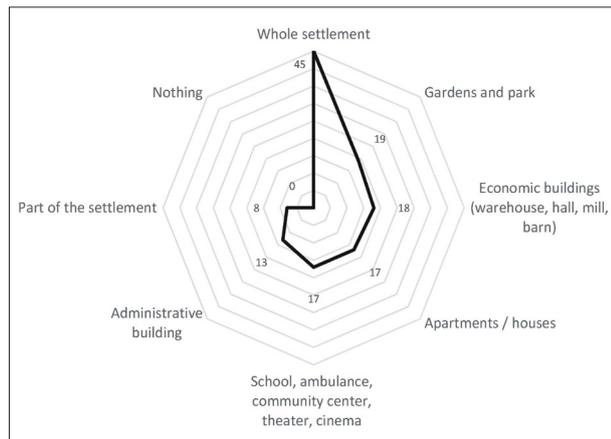


Fig. 4: Former *pustara* residents’ attitudes toward *pustara* heritage (Survey question: What kind of *pustara*’s immovable cultural heritage should be protected? Select up to three responses) Source: authors’ survey

them did not know anything about the settlement before their visit. The respondents showed the highest motivation for the dimension of recreational experience and lowest for heritage/emotional experience, as all three dimensions listed here were confirmed according to previous research (heritage/emotional experience: Cronbach $\alpha = 0.884$; cultural/educational experience: Cronbach Alpha $\alpha = 0.856$; recreational experience: Cronbach Alpha $\alpha = 0.448$).

Respondent age, level of former information on *pustara settlements* and the intention to visit *pustara* were variables that showed differences between groups. Items for the heritage / emotional experience (Kruskal–Wallis test, $p = 0.01$), as well as for cultural / educational

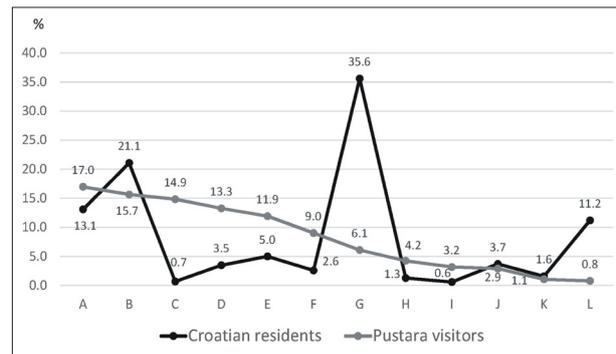


Fig. 5: Comparison of the reasons for travelling between Croatian citizens and *pustara settlement* visitors
 A – city breaks, excursions, culture, entertainment;
 B – vacation by the sea; C – gastronomy and enology;
 D –recreational activities; E – events and festivals; F – sport activities; G – visiting relatives and friends; H – education, seminars (unprofessional); I – shopping; J – "wellness" and health programs; K – religions reasons; L – others
 Sources: Project TADS 2013 (The Institute for Tourism) and authors’ adaptation

Place attachment item	Mean	SD	Median IQR
Feel a sense of belonging to the <i>pustara settlement</i>	2.50	1.370	3 (1–3)
Part of your heritage	2.06	1.264	1.5 (1–3)
Feel emotionally involved	2.76	1.358	3 (1.25–4)
Experience former rural spaces	3.69	1.199	4 (3–5)
Obligation to visit the <i>pustara settlement</i>	2.36	1.252	2 (1–3)
Feel it is important to visit the <i>pustara settlement</i>	2.75	1.247	3 (2–3)
Feel that one must visit the <i>pustara settlement</i>	3.14	1.264	2 (2–4)
Appeal of its rural characteristics	3.52	1.265	4 (3–5)
It is a famous regional site that one must visit at least once in a life	3.72	1.322	4 (3–5)
Learn about the <i>pustara settlement</i>	3.62	1.298	4 (3–5)
The <i>pustara settlement</i> ’s historic background	3.05	1.447	3 (2–4)
The natural environment of the <i>pustara settlement</i>	3.56	1.315	4 (3–5)
Spend a day outdoors	4.80	0.459	5 (5–5)
On the way to another site	1.88	1.247	1 (1–3)
No entrance fee	2.98	1.522	3 (1–4)
For some entertainment	4.46	0.769	5 (4–5)
For relaxation	4.69	0.558	5 (4–5)

Tab. 5 Descriptive statistics: Mean and median for tourist motivation items (response scale: 1 = “Strongly disagree” and 5 = “Strongly agree”). [n = 124] Source: authors’ survey

experience (Kruskal–Wallis test, $p = 0.008$), were ranked higher among respondents aged 65 and older, while the same group expressed significantly lower ratings for recreational experience (Kruskal–Wallis test, $p = 0.003$). Respondents who had previous knowledge about the term *pustara* evaluated heritage/emotional experience (Mann–Whitney U test, $p = 0.02$) with higher scores, as well as for the cultural/educational experience (Mann–Whitney U test, $p = 0.01$), compared to those who had no previous information on *pustara settlement*. Those respondents who came to Zlatna Greda for a specific purpose significantly differed by expressing lower grades for motivation linked to the recreational experience, compared to those who accidentally visited the site (Mann–Whitney U test, $p = 0.001$).

5.5 Pustara visitors' preferences related to pustara's heritage

To identify parts of *pustara* heritage that are most interesting for visitors, we asked the latter to rate selected *pustara* features and contents from 1 to 8, where 8 represented "Most interesting" and 1 "Least interesting." Visitors responded as follows. The most interesting heritage content of the *pustara* is the whole settlement, gardens and park, followed by customs, rituals, and ceremonies. Craftsmen tools, agricultural, industrial and everyday tools and machines are the least interesting feature. Tourists also stated that they would like to find out more about the *pustara settlements*: about their genesis, development, history, traditions, culture and economic potential. Regarding the question about the need for the establishment of *pustara* museums, 79.8% of the respondents answered positively, but only 57.6% of them felt that the museum should be on one of the *pustara settlements* (Fig. 6).

6. Discussion

The purpose of the research was not to test new approaches to "memory studies" or tourist motivation, but rather to define dominant narratives in a settlement with specific functions, and physical evidence with the help of existing approaches. *Pustara settlements* are special man-made physical and social constructions in the Baranja region, created from the second half of the 19th century. Legacies are still strongly present in the place and in the memories of former residents. Our main questions were about former *pustara* residents' preferences about heritage types, the strength of their place attachment

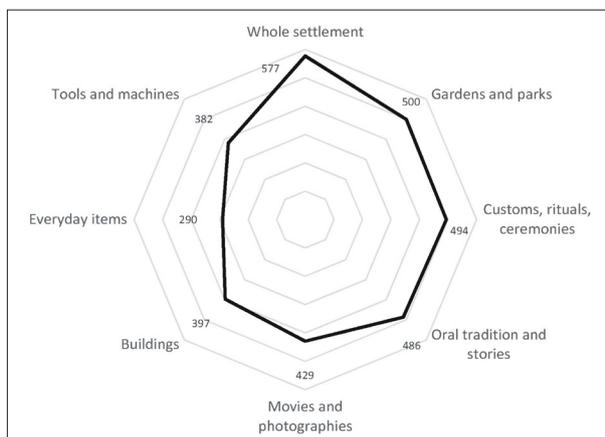


Fig. 6: Pustara visitors' preferences related to pustara heritage. Source: authors' survey

to the *pustara settlement*, the differences between the reasons for travelling among Croatian tourists in general and tourists who visit *pustara settlement*, tourist motivations for visiting the *pustara settlement*, and whether these settlements have potential in terms of heritage.

Past research on place attachment, starting with Altman and Low (1992), identified various sub-dimensions of place attachment, with place identity and place dependence as the strongest. Kil et al. (2012) added the sub-dimension of family legacy identity, and we added it to our research project. The specific functional and spatial settings of the *pustara settlement* as well as social relations with it, produced strong place attachment among respondents as measured by items according to Kil et al. (2012) and Williams and Vaske (2003). The results indicated that family legacy identity was the strongest sub-dimension in place attachment among former residents, highlighting the special set of social relations that existed.

Results of statistical analysis confirmed the previous findings of Hernandez et al. (2007), Kyle, Mowen and Tarrant (2004) and Smaldone (2006), according to whom age and time spent in the location make a difference. Residents who have spent most of their lives in a *pustara settlement* have stronger place attachment, a result that is comparable to Hernandez et al. (2007) and Smaldone (2006). Also, there are similarities with the research of Kyle, Mowen and Tarrant (2004), in which it was shown that activity or energy spent in the place makes a difference. The respondents who worked in the *pustara settlement* showed higher scores for place attachment.

While researching place attachment of former *pustara* residents, we also explored their opinions on heritage. The former residents were chosen as a target group for the time they spent in the *pustara settlement* and for their knowledge about the area. The survey questions included all three categories of heritage according to the Act on the Protection of Cultural Property (in Croatian: Zakon o zaštiti i očuvanju kulturnih dobara, 2017), which includes immobile cultural goods, movable cultural goods and intangible cultural goods. In the first category (immobile cultural goods), the respondents emphasised the importance of protecting the entire settlement (79%), after which they choose parks and gardens and certain elements of the built environment, including industrial buildings, housing and public buildings in similar proportions (17–18%). They believed that the most important elements of movable cultural heritage are documents and letters (77%), while the most important non-material ones are customs, rituals and ceremonies (82.5%). We infer that most of the respondents wanted to protect customs, rituals, and ceremonies because of their distinctive place attachment to the site, especially because of the strongest sub-dimension of family legacy. In conclusion, for the former *pustara* residents, the unique aspects of *pustara* heritage are the customs, rituals and ceremonies, followed by the whole settlement and documents and letters. In comparison to this respondent group, the visitors to the *pustara settlement* considered the whole settlement as the most important element of its heritage, followed by gardens and parks, then customs, rituals and ceremonies, followed by oral tradition and stories.

Visitors highlight the need to protect the entire settlement although only part of the buildings have been renovated (administrative and economic buildings), and most of the settlement is in its original, semi-derelict state. These provoke other questions because visitors are not sufficiently

familiar with the observed space. These results can be related to the study that Poria, Butler and Airey conducted in 2004, wherein they found that tourist perceptions of heritage site characteristics is more important than the site characteristics themselves. *Pustara* visitors, as well as tourists from the Poria, Butler and Airey (2004) study, wanted to learn more about their own heritage. *Pustara* visitors expressed interest in the genesis, history, traditions, development and economic potential of *pustara settlements*. The information tourists want to know about the *pustara* can provide directions for choosing the new contents in these locations.

The results of the second survey showed similarities with previously conducted research. Tourists confirmed their motivations in the three dimensions revealed by Poria, Butler, and Airey (2004). Results also show that tourists do not identify themselves with the *pustara settlement*, but they recognise its value and importance. The tourists who participated in this survey, as well as the participants in the research conducted by Farmaki (2012), did not come to the rural space for the authenticity and traditions of that space. While in the Farmaki survey, tourists visited rural areas for interacting with the natural landscape and culture, tourists in our research visited the *pustara* because of its natural environment and for entertainment and relaxation. Further, research on tourist motivation has shown that tourists visiting the *pustara settlement* have a lesser sense of belonging to these rural spaces, just as the respondents in the research carried out by Poria, Butler and Airey in 2003. In part, these results may be attributed to the fact that about 36% of tourists did not have any previous knowledge of the *pustara settlement*, despite the fact that almost three of four (73%) lived nearby. This information, as well as the fact that respondents who knew what the term *pustara* meant and evaluated heritage / emotional experience highly, suggests that knowledge about the local rural space and heritage should be popularised further through the education system.

With respect to the reasons tourists provided for visiting the *pustara settlement* Zlatna Greda, we found out that primarily they wanted to spend a day out, relax and have fun. They also wanted to explore and learn more about the rural heritage site. The least attractive reason for visiting *pustara settlements* was because they just stopped by on their way to another place.

To draw conclusions from this research, data on the touristic habits of the *pustara settlements'* visitors and those of the general population of Croatia, are important. According to CBS (2017), Croatian citizens mostly visit their relatives and spend summer at the seaside. The observed group of respondents who visited the *pustara settlement* came for city breaks, excursions, culture and entertainment, followed by vacation on sea gastronomy and oenology, and recreational activities. The differences in the attitudes of *pustara* visitors compared to the state average is highest for city breaks, excursions, culture, entertainment; gastronomy and enology; recreational activities; events and festivals and sports activities. These categories of tourism reveal new content that could attract the interest of new groups of tourists.

Regarding the need for the establishment of *pustara* museums, all former *pustara* residents' responses were in the affirmative. All former residents think that a *pustara* settlement museum is needed, and about 80% of them think that any one of the *pustara settlements* is an ideal location for the museum. About 79% of *pustara* visitors also believe that a museum is needed, and about 57% of them feel that

it should be located in any one of the *pustara settlements*. It is interesting that tourists consider the need for protecting *pustara settlements* and establishing a museum, even though their motivation to visit was not for its rural and heritage characteristics but for the recreational content offered by a settlement like Zlatna Greda. From their visit, the tourists have realised that the *pustara settlement* is a valuable element of rural heritage and have expressed their desire to protect such areas, probably based on how different it is from the traditional Slavonian and Baranja villages.

From this research on place attachment and the results from Lee (2015), wherein he stated that nostalgia was the key link between personal emotions and memorable experiences, it can be concluded that the former inhabitants of the *pustara settlement* would represent potential tourists of the renovated *pustara settlements* with a strong motivations to visit these places. A successfully revitalised location of *pustara settlements* with educational and recreational facilities, presents possible future tourists and special interest groups with a desirable destination (who enjoy city breaks, excursions, culture, entertainment, gastronomy, enology, recreational and sports activities, events and festivals, etc.).

The questionnaire on tourist motivation, if well adjusted, can serve as a tool to indicate possible land use and services. The findings suggest that for tourists, these places can be as meaningful as for residents. Places of specific heritage and character can provide motives to create new content to strengthen settlement networks in a rural landscape.

The limitation of the first survey was the low number of respondents. Future studies would gain by including a greater number of former residents. Further studies should explore the change in place attachment among generations of former residents and their children, to examine whether attitudes change with the preferences of the next generation. The former residents expressed their preference for tangible as well as intangible heritage, but the wholeness of the settlement is rated as the most valuable characteristic.

The second study was also limited by the rather low number of respondents. In future research, it is necessary to increase the number of respondents and research has to be carried out at several different locations in order to include different groups of respondents whose opinions would be more representative. Given the results of this research, it is necessary to elaborate on the term the whole settlement in greater detail, or this ambiguity could be corrected if we provide an explanation of certain terms in future questionnaires.

7. Conclusion

There is an international movement to keep threatened landscapes alive, and the new focus is on settlement networks and the viability of settlement functions. The abandonment of small settlements and the disappearance of functions in agricultural regions represent a process that weakens the cultural landscape. This research project has revealed a range of dynamic processes that can be depicted as impacts of observed changes. The process of polarisation of people and goods in the infrastructure corridor is identified in the eastern part of Croatia, in the Baranja region, while other spaces are going through processes of depopulation and loss of settlement viability. Settlements with specific material and social heritage draw our attention. Narratives about the *pustara settlements* highlight the non-rural character of these settlements formed in rural landscapes. Material

heritage – roads, buildings, alleys set in a specific orthogonal settlement scheme – create specific visual and spatial islands in the rural landscape of Eastern Croatia. The questions of how to present and preserve this phenomenon are the stimuli for this research.

We identified key stakeholders with high levels of interest in these locations: former residents with strong place attachment; and tourists with motivations linked to heritage, culture and recreation in the new educational and recreational centres in one of the settlements. The results using the stakeholders' questionnaires indicate that both parties recognise the *pustara settlement* as a valuable element of the rural heritage and express their desire to protect these areas. For both, former residents and visitors, the protection of the whole settlement as well as its cultural and historical legacy, is very important. The fact that *pustara* visitors suggest that knowledge about the local rural space and heritage should be more popularised in the education system is also indicative. The information about what tourists want to know about the *pustara settlements* can provide guidance on choosing new content in these locations. For this process, information about travel preferences can also be useful, especially because the travelling preferences of *pustara* visitors differ from the national data on tourist motivation. *Pustara* visitors mostly take city breaks, excursions related to culture, entertainment, gastronomy and enology, and travel because of different events, festivals, and recreational and sports activities. Also, the former inhabitants of the *pustara settlements* can represent potential tourists of the renovated *pustara settlements* with a strong tourist motivation to visit these places. To sum up, the research results indicate the need for establishing comprehensive protection of the cultural-historical areas of *pustara settlements* that include tangible and intangible heritage, while maintaining the wholeness of the site.

Further research is needed that would require increasing the sample of former *pustara* residents, with the aim of investigating changing place attachment to *pustara* with time. If the memories of and interests in *pustara settlements* are fading with time and are weakening with the new generation, interests in preserving the place are to be questioned. As this research included only tourists in one *pustara settlement*, this limitation should be eliminated by including visuals or field trips to other settlements to enable broader conclusions for the *pustara settlements* in general.

Values of place are based not only on social constructions but also on physical reality, material evidence, and on concrete landscape characteristics for tourists as well as for local populations. In summary, this research confirms previous theories in the fields of place attachment and tourists' motivations with the aim of identifying more precise values in the broader scope of heritage. It can also have practical implications in showing how meanings can be used in bringing decisions about new uses and facilities to threatened rural landscapes. These results can also be used in further studies within the disciplines of architecture, spatial and rural planning, tourism management and heritage studies, as well as in multidisciplinary research.

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