

[https://doi.org/10.52326/jes.utm.2023.30\(2\).11](https://doi.org/10.52326/jes.utm.2023.30(2).11)

UDC 332.6:72(479.22+458.2)



COMPUTING HERITAGE VALUES: A CASE FOR GEORGIA AND MALTA

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Received: 03. 24. 2023

Accepted: 05. 03. 2023

Abstract. Value criteria and dimensions of heritage are two aspects on which the heritage value is calculated. The Heritage Value Calculation is effectively a computation whereby the heritage value for given site is established. This method was applied to two seminal contemporary architectural case studies, namely, the Palace of Rituals (Georgia) and the Manikata Church (Malta). The heritage value computed for each provides insight into their essential features whilst allowing a comparison of the sites – Georgia and Malta are spiritually linked through the same religious faith. Although the Palace of Rituals scored slightly higher in the dimensions of materiality, function, and spirit and memory, the Manikata Church obtained considerably higher scores for design, location and context, and traditions and techniques, thus ending up with a higher overall final heritage value score.

Keywords: *Palace of Ceremonies, Wedding Palace, Palace of Rituals, Manikata Church, heritage values.*

Rezumat. Criteriile de valoare și dimensiuni sunt două aspecte pe baza cărora se calculează valoarea patrimoniului. Calculul valorii patrimoniului este un calcul efectiv prin care se stabilește valoarea patrimoniului pentru un anumit sit. Această metodă a fost aplicată la două studii de caz arhitecturale contemporane fundamentale, anume - Palatul Ritualurilor (Georgia) și Biserica Manikata (Malta). Valoarea patrimoniului, calculată pentru fiecare obiect, oferă o idee despre principalele caracteristici esențiale, și în același timp permite comparația site-urilor – Georgia și Malta, care sunt legate spiritual prin aceeași credință religioasă. În timp ce Palatul Ritualurilor a obținut un scor mai mare la parametrii de materialitate, funcționalitate, spiritualitate și memorabilitate, Biserica Manikata a obținut un scor semnificativ mai mare la expresivitatea arhitecturală, locație și context, precum și prin tradiții și procedee, obținând astfel în general un punctaj mai mare în evaluarea patrimoniului.

Cuvinte cheie: *Palatul Ceremoniilor, Palatul Nunții, Palatul Ritualurilor, Biserica Manikata, valori ale patrimoniului.*

1. Introduction

A recent study developed a heritage value calculation based on multicriteria mathematical analysis [1]. It takes into account a number of dimensions of heritage – design,

materiality, function, location and context, traditions and techniques, and spirit and memory – with respect to the following heritage value criteria: form and physicality, socio-cultural, economic and use, and informational. These dimensions and criteria are used to compute the final heritage value of a given cultural site. Similar to the analysis undertaken in [2], the aim of this paper is to apply this formula to compute the heritage value of the Palace of Rituals and the Manikata Church, two iconic contemporary buildings of outstanding architectural importance rooted in the spirit of place, located in Georgia and Malta, the main island of the of the Maltese archipelago, respectively (Figure 1). Although in a geographical sense these two buildings are situated in different locations on the globe – Georgia, the mythological land of the Golden Fleece, occupying part of the eastern coast of the Black Sea whilst Maltese archipelago, the island of Gozo is the mythical Ogygia, lies nearly at the center of the Mediterranean Sea – both nations were among the first to be exposed to Christianity, the former by the apostles Andrew and Simon [3, 4] and, recalling *The Acts of the Apostles* 28, 1-11 [5], the latter by the apostle Paul.

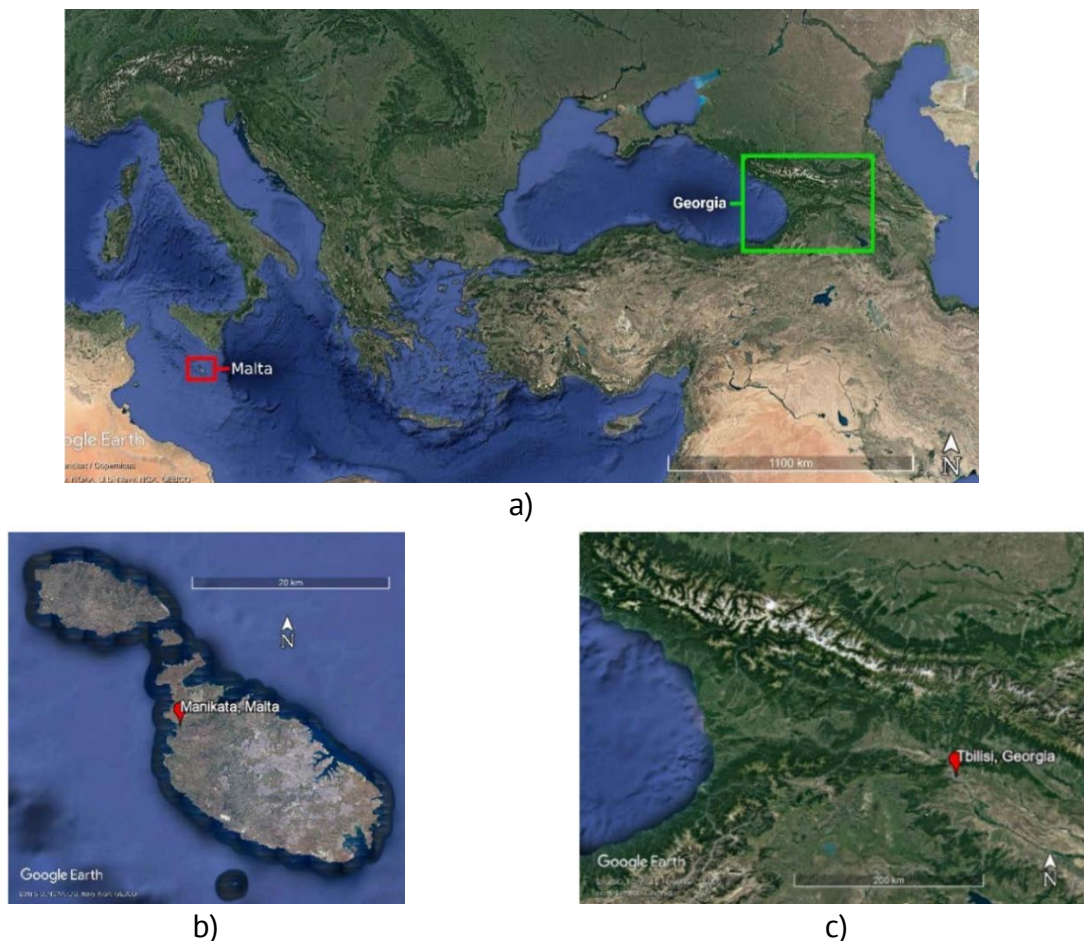


Figure 1. Site location (online version is in colour): a) the Mediterranean Sea and the Black Sea showing the location of Malta and its dependencies, and Georgia; b) Manikata, Malta; and c) Tbilisi, Georgia (© Google Earth).

2. Theoretical background

Based on the evaluation of leading publications studied by Mason [6], Yung and Chan [7], de la Torre [8], Doğan [9], Chen and Li [10] and Olukoya [11], 24 heritage value typologies were identified which formed the baseline for assessing a given heritage site through the Heritage Value Calculation [1]. These typologies – classified into four categories (N): (i) form

and physicality, (ii) socio-cultural, (iii) economic and use, and (iv) informational value – are tabulated against six heritage dimensions (K) – design, materiality, function, location and context, tradition and techniques, and spirit and memory – forming a heritage value grid whereby all the dimensions of heritage and heritage values carry equal weighting. For a given heritage site, the final heritage value, F, is defined by:

$$F = \frac{1}{K} \sum_{k=1}^K y_k$$

where y_k , the outer average of a given heritage dimension, is defined by:

$$y_k = \frac{1}{N} \sum_{i=1}^N z_i^k$$

where z_i^k , the average within the value category of each dimension, defined by:

$$z_i^k = \frac{1}{M_i} \sum_{j=1}^{M_i} x_{ij}$$

and where $M_1 = 7$, $M_2 = 7$, $M_3 = 4$, $M_4 = 6$, which respectively corresponds to (i) form and physicality, (ii) socio-cultural, (iii) economic and use, and (iv) informational values.

3. Materials and Methods

The Palace of Rituals, also referred to as the Palace of Ceremonies or the Wedding Palace, was erected in 1984 as a wedding venue (Figure 2).



a)

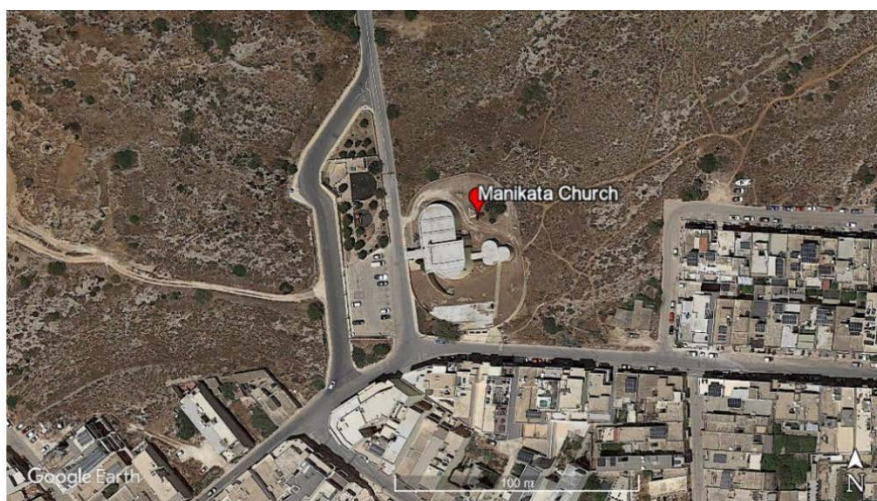


b)

Figure 2. The Palace of Rituals (online version is in colour): a) site location map (© Google Earth); and b) view from the south-west (© Roman Geber / CCBY-SA 4.0).

It is one of 90 case studies Chaubin considers representative of Brezhnev-era architecture [12, p. 268-269]. Its design, the work of Georgian architect Victor Djorbenadze (1925–1999) and his assistant Vazha Orbeladze (1941–2022), is reminiscent of Georgian ecclesiastical architecture through an architectural language akin to the German avant-garde expressionism of the early twentieth century [13]. In the words of Djorbenadze, it is a “cathedral” [14, p. 14]; its plan is an abstraction of a drawing retrieved from a gynaecological book in Djorbenadze’s mother library. Recalling Bostanashvili [15], the Palace of Ceremonies restored “the forgotten meaning of the city as a spiritual link between the heavens and the underworld, and integrates the symbolic with the functional. It is a place where the ritual of marriage ... is celebrated” [16, p. 462]. Famous individuals and members of the general public have tied the knot in this building. The place, often visited by celebrities, was purchased in 2002 and used as a private residence until it was leased to a private events company in 2013. It currently serves, once again, as a venue for weddings and other social functions.

The Manikata Church was completed a decade prior to the Palace of Rituals according to the 1962 design by Maltese architect Richard England (Figure 3).



a)



b)

Figure 3. The Manikata Church (online version is in colour): a) site location map (© Google Earth); and b) view from the west (© credit to the Archdiocese of Malta – Ian Noel Pace).

Although inspired by modernist traditions, it is grounded in the geocultural context of the site and thus, in terms of its style, it complies with critical regionalism. The form is an abstraction of the traditional corbelled masonry hut common in rural Malta known as a girna [17]. Its configuration evokes the Megalithic temples of the Maltese archipelago, which predate the pyramids of Egypt by a millennium [17] and were listed as UNESCO World Heritage sites of outstanding universal value in 1980 [18]. Aware of the major reforms set in motion by the Second Vatican Council and the innovative church of Notre-Dame du Haut executed to the design of the Franco-Swiss architect Le Corbusier in 1955, England's design departed from the Baroque-inspired churches which dominate the landscape of Malta, embracing instead the local cultural and natural environs. The church is an embodiment of the "successful cohesion of human spirituality within the peacefulness of its natural environment" [19]. Together with a number of other parish churches, it was scheduled in 2011 as a Grade 1 monument [20].

4. Results and Discussion

A binary valuation was applied to the Heritage Value Calculation [1] – that is, if a dimension of heritage fits one of the criteria, a value of 1 is allocated, otherwise 0 is assigned. The resultant heritage value criteria scores for both case studies are given in Table 1 and their combined heritage value grids are given in Table 2 and Table 3.

Table 1

Binary scoring of heritage value: design, materiality and function

Dimensions of Heritage	Heritage Value Criteria							
	Form and Physicality		Socio-Cultural		Economic and Use		Informational	
	PR*	MC**	PR*	MC**	PR*	MC**	PR*	MC**
Design	1	1	1	1	0	1	0	0
	1	1	0	1	1	1	1	1
	0	0	0	1	1	1	0	
	0	1	0	0	1	0	0	0
	1	1	0	0			1	1
	1	1	1	1			0	0
	1	1	1	1				
z_i^1	0.714	0.857	0.429	0.714	0.75	0.75	0.333	0.333
Materiality	1	1	0	0	0	0	1	0
	1	1	0	0	0	0	1	1
	0	0	0	0	0	0	0	0
	1	0	0	0	0	0	0	0
	0	0	0	0			1	1
	0	1	0	0			0	0
	1	1	0	0				
z_i^2	0.571	0.571	0.000	0.000	0.000	0.000	0.500	0.333
Function	0	0	1	1	1	1	1	1
	0	0	1	1	0	0	0	0
	0	0	1	1	0	0	0	0
	0	0	1	1	1	0	0	0
	0	0	1	1	1	0	0	0

Continuation Table 1

	1	0	1	1			0	0
	0	0	1	1			0	0
	1	1	1	1				
z_i^3	0.286	0.143	1.000	1.000	0.500	0.250	0.167	0.167

* Palace of Rituals, ** Manikata Church

The Heritage Value Calculation allocates the final value of a heritage site in a multifaceted way, where aspects such as the informational value resulting from the function of the building has as much weighting as aspects such as design aesthetics. In the design dimension, the Manikata Church scored higher overall in comparison to the Palace of Rituals. It scored slightly higher in the category of form and physicality and considerably higher in the socio-cultural value category, scoring five out of the seven value benchmarks in this category compared to the Palace of Rituals, which scored only three out of seven. Both sites obtained equal scores in the economic and use and informational value categories.

In terms of the materiality dimension, the Palace of Rituals obtained an overall higher score. Both sites obtained similar scores in the form and physicality value category, as well as scoring zero in the socio-cultural and economic and use categories of this dimension. The Palace of Rituals received a higher rating for informational values, scoring three out of the six value benchmarks in the informational category, compared to the Manikata Church's two out of six value benchmarks.

The Palace of Rituals scored higher overall than the Manikata Church in the dimension of function, with higher scores in the subdimensions of form and physicality, and economic and use; the two sites received comparable scores in the remaining categories. In terms of location and context, the Manikata Church scored considerably higher overall, scoring three out of the seven value benchmarks in the form and physicality category whilst the Palace of Rituals obtained a zero. It also scored higher in the socio-cultural and informational value categories; however, both sites obtained scores of one in the economic and use category.

Table 2

Binary scoring of heritage value: location, traditions and memory

Dimensions of Heritage	Heritage Value Criteria							
	Form and Physicality		Socio-Cultural		Economic and Use		Informational	
	PR*	MC**	PR*	MC**	PR*	MC**	PR*	MC**
Location and Context	0	1	0	1	1	1	0	1
	0	0	1	1	1	1	0	0
	0	1	1	1	1	1	0	1
	0	1	0	0	1	1	0	0
	0	0	0	0			0	1
	0	0	0	0			1	1
	0	0	0	0				
z_i^4	0.000	0.429	0.286	0.429	1.000	1.000	0.167	0.667
Traditions and Techniques	0	0	1	1	0	0	0	0
	1	1	1	1	0	0	1	1
	0	0	0	0	0	0	0	0

		Continuation Table 2							
		0	1	0	0	1	0	0	0
		0	1	0	0			1	1
		0	1	1	1			0	0
		1	1	1	1				
	z_i^5	0.286	0.714	0.571	0.571	0.250	0.000	0.333	0.333
		1	1	1	1	0	0	1	1
		1	1	1	1	0	0	0	0
		0	0	1	1	0	0	0	0
	Spirit and Memory	0	1	1	1	1	0	0	0
		1	1	0	0			0	0
		1	1	1	1			0	0
		1	1	1	1				
	z_i^6	0.714	0.857	0.857	0.857	0.250	0.000	0.167	0.167

* Palace of Rituals, ** Manikata Church

In the dimension of traditions and techniques, once again the Manikata Church scored higher overall. The Palace of Rituals scored slightly higher in the economic and use category – one out of the four value benchmarks – whilst the Manikata Church was allocated a zero for this category. However, in the form and physicality category, the church obtained a considerably higher value: five out of the seven value benchmarks in comparison to two out of seven for the palace. Both were weighted equally in the socio-cultural and informational value categories.

In terms of the spirit and memory dimension, the Palace of Rituals scored slightly higher, although comparably to the Manikata Church. The latter obtained a slightly higher score for the form and physicality category, with six out of seven value benchmarks, compared to five out of seven for the palace. In the economic and use category, the Palace of Rituals scored one of the four value benchmarks whereas the Manikata Church obtained a zero. In the socio-cultural and informational categories, both sites obtained equal scoring. The final heritage value (F) for the Palace of Rituals was 0.422, and that for the Manikata Church was 0.464 (see Table 3).

Table 3

		Heritage value grid						
Case study	Dimensions of Heritage	Heritage Value Criteria				y_k	F	
		Form and Physicality	Socio-Cultural	Economic and Use	Informational			
Palace of Rituals	Design	0.714	0.429	0.75	0.333	0.557	0.422	
	Materiality	0.571	0.000	0.000	0.500	0.268		
	Function	0.286	1.000	0.500	0.167	0.488		
	Location and Context	0.000	0.286	1.000	0.167	0.363		
	Traditions and Techniques	0.286	0.571	0.250	0.333	0.360		
	Spirit and Memory	0.714	0.857	0.250	0.167	0.497		

Continuation Table 3

Manikata Church	Design	0.857	0.714	0.750	0.333	0.664
	Materiality	0.571	0.000	0.000	0.333	0.226
	Function	0.143	1.000	0.250	0.167	0.390
	Location and Context	0.429	0.429	1.000	0.667	0.631
	Traditions and Techniques	0.714	0.571	0.000	0.333	0.405
	Spirit and Memory	0.857	0.857	0.000	0.167	0.470
						0.464

5. Conclusions

The Heritage Value Calculation provides a relative value to determine the heritage value of a specific site in comparison with another or number of others, preferably of identical typology. Applying a binary scoring system to the sites under study resulted in final heritage values (F) of 0.422 and 0.464 for the Palace of Rituals and the Manikata Church, respectively. Although the former scored slightly higher in the materiality, function, and spirit and memory dimensions, the latter obtained a considerably higher scoring in the dimensions of design, location and context, and traditions and techniques, thus giving it a higher overall final value. One may argue that the scores obtained for both buildings were relatively comparable and similar in value. In the proposed binary scoring system, where $0 < F < 1$, even a minor difference in the final value indicates a notable difference in heritage value. Moreover, the quantifiable results would have been more accurate if a non-binary valuation had been undertaken.

Acknowledgements. This article is based on a presentation by the author at the XIth edition of the International Conference 'Current problems in urban planning and architecture', held on 15-17 November 2022 at the Faculty of Urbanism and Architecture, Technical University of Moldova, Chisinau, marking the 50th anniversary of the faculty's foundation. The author would like to thank Nadine Zammit for her critical input with respect the interpretation of the findings. Furthermore, credit is due to Roman Geber and the Archdiocese of Malta – Ian Noel Pace, authors of Figure 2 (bottom) and Figure 3 (bottom), respectively.

Conflicts of Interest: The author declares no conflict of interest.

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Citation: Bianco, L. Computing heritage values: a case for Georgia and Malta. *Journal of Engineering Science* 2023, 30 (2), pp. 126-134. [https://doi.org/10.52326/jes.utm.2023.30\(2\).11](https://doi.org/10.52326/jes.utm.2023.30(2).11).

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