European Research Studies Journal
Volume XXVIII, Issue 1, 2025

pp. 288-307

Change Management and Value-Assessment Systems in Built Heritage Assets: A Case Study for Malta, Europe

Submitted 10/11/24, 1st revision 11/12/24, 2nd revision 21/12/24, accepted 15/02/25

Charlene Jo Darmanin[1], Rebecca Dalli Gonzi[2], Reuben Grima[3], Simon Grima[4]

Abstract:

Purpose: *The objective of this study is to examine how changing priorities and values affect heritage preservation within the urban sprawl in Malta.*
Design/Methodology/Approach: *The research method employed included a survey distributed across the different demographics (age, occupation, gender, racial origin, religious affiliation, education, geographical) in Malta.*
Findings: *The results were analysed using Friedman's ranking test and Exploratory Factor Analysis. The preliminary results reported here suggest that the analysis of transformations in value systems, across the last decade, is essential to inform the creation of adequate policies for sustainable management of heritage, and to allow wider public engagement in formulating such policy decisions.*
Practical Implications: *Shifts occurring in urban areas have been impacting the architectural and cultural legacy of different towns and cities in Malta, Europe. Heritage preservation often has to compete with other priorities, ranging from social, cultural, environmental, economic and sustainability concerns. Conventional heritage management practices have traditionally focused on preventing change.*
Originality/Value: *More recent paradigms have recognised the need to incorporate the transformative nature of heritage and people's engagement with it. Heritage as a societal and cultural phenomenon may benefit from heritage management utilising value-assessment systems to achieve a careful equilibrium of values, supporting appropriate decision-making processes to safeguard historic buildings or archaeological sites.*

Keywords: *Social value, cultural assets, urban development, managing change, built heritage.*
JEL codes: *A12, A13.*
Paper type: *Research article.*
Acknowledgements: *The research work disclosed in this publication is funded by the Tertiary Education Scholarships Scheme (Malta).*

[1]*University of Malta, Faculty of Built Environment, Construction and Property Management, ORCID ID: 0009-0004-6816-6303, e-mail: charlene.zammit.08@um.edu.mt;*
[2]*Prof., the same as in 1, ORCID ID: 0000-0003-2183-8331, e-mail: rebecca.e.dalli-gonzi@um.edu.mt;*
[3]*University of Malta, Faculty of Built Environment, Conservation and Built Heritage, ORCID ID: 0000-0002-2866-3434 e-mail: reuben.grima@um.edu.mt;*
[4]*Faculty of Economics, Management and Accountancy, University of Malta, ORCID ID: 0000-0003-1523-5120, simon.grima@um.edu.mt;*

1. Introduction

Malta is an island state in the Mediterranean, comprising the two main islands of Malta and Gozo. It is one of the smallest and most heavily built states in the European Union, with one of the highest population densities. Construction production in the Maltese Islands has grown exponentially in the last two decades; with a quadrupling in construction output from 2000 to 2021, the largest rate of growth in Europe (Eurostat, 2022).

This has partly been driven by the demands for more residential housing for what has been described as an 'unprecedented' increase in population of almost 25 per cent in the last decade, the highest in Europe for that period (Eurostat, 2023; National Statistics Office, 2022). A recent report has projected that the supply for new residential properties will surpass demand by 2025 (Cummings, 2023). This raises the question of whether the overdevelopment is truly driven by the need for housing, or whether it is driven by other factors.

The built environment of the Maltese Islands has changed dramatically in a short time span. The surge in construction has inevitably had extensive ramifications for the country's wealth of built heritage. Malta boasts three UNESCO World Heritage inscriptions and numerous Urban Conservation Areas (UCAs), all within the compact area of 316km^2. Apart from an increase in new-build construction, the rehabilitation of property within UCAs has become more popular due to central government grant schemes, aimed at the preservation and protection of traditional materials and historic fabric. This has led to various construction activities being carried out on, or in close proximity to, the historic built fabric.

The present authors concur with the view that heritage is a 'social and cultural process, rather than a thing', with the management of heritage being a value-based process of identifying, sustaining and using heritage values (Lee, 2022, p. 126; Smith, 2006). Fouseki (2022) develops this into a framework for 'heritage dynamics', where she discusses that, "heritage is subject not only to change, transformation and uncertainty, but also to stagnation and permanence" (Fouseki, 2022, p. 2). The understanding of such dynamic factors, for any society, play a crucial role in the protection of the built heritage in a given social context. However, the values currently being embraced and prioritised in Maltese society are not clearly understood.

The present paper aims to identify these values as an initial phase of investigation, forming part of a larger study that seeks to understand how changing priorities affect the preservation of the historic built fabric against a backdrop of urban sprawl. A significant research gap on the situation in Malta is the dearth of studies on how societal changes influence heritage policies and decision-making processes. Furthermore, it is key to note whether these changes are being managed effectively and the extent to which the public is engaged, or not, with the stewardship of the

historic environment in Malta. This is a Phase 1 study designed to substantiate this inquiry by establishing a baseline for the values that society is embracing during 2024, through self-reported surveys. The study aims to investigate the research gaps through the following two questions:

RQ1. *What are the values being prioritised by a changing society in the built environment?*
RQ2. *How do demographic variables affect the values prioritised in the built environment?*

2. Literature Review

Managing Change and Value Assessment Models:
The world has undergone significant change over recent years. The beginning of the millennium brought various transformations and conflicting tensions not seen since the end of the Second World War (Ceccarelli, 2017), and a post COVID-19 pandemic world that is still unravelling amidst scattered wars and climate crises (Sedera *et al.,* 2024). The resulting impact is evident on urban systems and landscapes, and in turn in architectural design and the protection of built heritage assets (Ceccarelli, 2017).

The Maltese Islands are no stranger to such transformations. The journey to Malta's Independence (1964) witnessed an unprecedented 'building boom' (Thake, 2014, p. 89), driven by reconstruction and growth to meet emerging needs in the wake of the destruction of the Second World War (1939-1945). A flourishing tourism industry committed prime coastal and landscape areas for the construction of new hospitality buildings, reshaping the island and changing the very character the industry attracted (Richards *et al.*, 1969). In the search of an architectural identity to reflect Malta's newly found independence (Thake, 2014), contemporary structures specked a new horizon, irreversibly transforming the island with a fresh wave of urban sprawl, culminating in the recent exponential growth in construction production and unprecedented increases in population in the span of two decades (Eurostat, 2022, 2023; National Statistics Office, 2022).

Urban transformations such as these have inevitably left their mark on the islands' built heritage assets. The management of these changes requires a delicate balance between respecting the past and embracing the future. The 'past is not a frozen concept' - different societies have their own ways to evaluate and define what comprises the past, of valuing and giving meaning to what is still in existence, and of designing the most adequate approach to preserving it (Ceccarelli, 2017, p. 3; Fouseki, 2022).

Apart from divergences across cultures, societies themselves are in constant flux and evolution. This makes the management of change a complex exercise due to its multifaceted nature, encompassing a wide range of considerations and challenges

which change across cultures and time (Ceccarelli, 2017; Fredheim and Khalaf, 2016). The need to balance the preservation of values with contemporary demands often results in tensions and difficult trade-offs to maintain the integrity and authenticity of built heritage assets; these values may often be in conflict with each other (Avrami and Mason, 2019; Fredheim and Khalaf, 2016). Cultural, social, economic, environmental and sustainability practices may prioritise one objective at the cost of another (Fredheim and Khalaf, 2016).

Value-assessment systems in cultural heritage have been developed significantly since the 19th century, with early approaches focused on the monument and on aesthetic values, giving way in recent decades to more inclusive, dynamic and multi-dimensional approaches. Approaches to the protection of heritage too have gone through several transformations. Value-based approaches have been heavily criticised in recent years for favouring the archaic western expert interpretations of heritage (Poulios, 2010; 2014; Walters, 2013), with Fredheim and Khalaf (2016) concluding that such typologies rest on 'incomplete interpretations of what is perceived as heritage' (Fredheim and Khalaf, 2016, p. 471).

Similarly, the concept of authorised heritage discourse (AHD), developed by Laura-Jane Smith, has challenged the widespread belief that heritage can only be properly interpreted and valued by heritage experts, whereas she argues for a more shared definition of cultural significance with the public (Smith, 2006). The 'ivory towers' of disciplinary expertise have increasingly come under scrutiny (Schofield, 2014; Grima, 2016).

Heritage professionals have now recognised that 'solving the puzzle of values' is central to heritage management in order to attain the ultimate aim to serve society (Avrami and Mason, 2019, p. 2; Machado, 2024). The urban setting that built heritage is set in cannot be reduced to simply one of social mechanisms (Veldpaus, 2015). Peters (2020) emphasises how understanding values for a particular context, their history and how they have been shaped, is essential for making effective decision-making processes in heritage (Peters, 2020). She calls for a 'cross-disciplinary, context-dependent and value-driven' contemporary conservation (Peters, 2020, p. 9). UNESCO (2010) calls for the recognition and transition of values in conjunction with a reflection of the changing role of historic areas, to respond to its transformative nature, and to identify new policies, in synergy with socio-economic development, for the sustainable future of the historic urban landscape (UNESCO, 2010).

This was enhanced in the current global call for the protection of heritage through a holistic approach to the urban environment and a strive for sustainable development evident through the New Urban Agenda (United Nations General Assembly, 2016). By incorporating these alternative models with recent global frameworks, this study aligns with calls for democratized heritage management, which considers the dynamic and evolving priorities of diverse societal groups. This calls for a combined

approach to our built environments; a bridging between participatory contributions (bottom-up approach) and legislative framework development (top-down approach). The work presented here is intended to establish a baseline of values prioritised by the Maltese for their built environment, and will eventually be used to inform the development of an informed framework for the management of change in relation to the historic urban landscape.

3. Methodology

The Research Instrument:

A mixed method questionnaire was designed with the aim of determining (1) the society's perceived view of cultural heritage and (2) the values prioritised by the same society, which affect the built environment. Defining the values of contemporary society in Malta set a baseline of their priorities while highlighting the change that these are driving. A pilot study consisting of two focus groups was carried out, to refine the design of the questionnaire. The ten participants in the pilot study were selected from diverse demographics (including different cultural backgrounds, education levels, occupations, generations and gender) to ensure a representative sample was set.

Self-reported surveys with Likert Scales were used as an appropriate means to measure explicit personal values, for a cross-sectional understanding of the subjective views of different members of society (Creswell, 2009; Løvaas, 2022). This work is underpinned by a constructivist approach, which recognises that values are in constant flux, constructed through sense-making processes by society (Løvaas, 2022). The methodology adopted aimed at a deeper insight into the respondents' individual and collective experiences, together with their subsequent actions (Løvaas, 2022).

Ethical considerations were carefully assessed to ensure integrity and participant well-being. The research instrument was approved by the Faculty Research Ethics Committee (FREC) of the Faculty of the Built Environment at the University of Malta, under application BEN-2024-00085. Informed consent was obtained from all participants prior to their participation in the questionnaire survey, with the usual safeguards of of anonymity and confidentiality. At no point were participants asked to submit their name. Questions pertaining to age, location of residency and occupation were described in ranges, zones or broad definitions respectively, to ensure anonymity.

Sampling Procedure:

The sample size for this study considered the Maltese population, including Maltese people currently residing in other countries. A target sample size of 385 respondents was established as a minimum to validate the sample at a confidence level of 95% with a margin of error of 5%, as established by the sample calculator for an unknown population size (Calculator.net, 2008).

Survey questionnaires were prepared in both the English and Maltese language and distributed through (1) online portals posted on various social media platforms (Linked-In, Facebook and email) and utilising a (2) snowball sampling technique. The collection of online surveys has shown significant benefits as a medium for perception surveys, although this risks selection bias due to limited accessibility for non-computer-literate participants (Bethlehem, 2009; Bishop, 1997; Wherrett, 1997). Furthermore, the 'opt-in' nature of the online questionnaire risks a biased sample, with participants choosing to participate on the basis of their interest in the subject (Bethlehem, 2009).

As a mitigation measure, face-to-face surveys accounted for 5.2% of responses, targeting underrepresented demographics, such as the older generation, representing those who are less digitally connected, were approached in public spaces around Malta, and then aided to filling out questionnaires. This approach sought to ensure a demographic representation of the sample which is truer to the current population. Between July 2024 and November 2024, a total of 388 completed surveys were received which met the minimum requirements.

The questionnaire was structured in three sections. The first section, 'The Demographic', related to the demographics of the participants, and based on the National Statistics Office (NSO) Census 2021 questionnaire, for a direct comparison to the results obtained. These included age, gender, education, occupation, 'racial origin' (as defined by NSO), religious affiliation, country of birth, country of residence, duration of residency in the current country, residency in other countries and duration of residency in other countries (National Statistics Office, 2022).

Similarly, the second section, 'The Characteristics of Place of Residence', related to characteristics of place of residence was based on the NSO Census 2021, namely; location of residency growing up, tenure of dwelling of residency growing up, development zoning of dwelling of residency growing up, period of construction of dwelling of residency growing up, current location of residency, current tenure of dwelling of residency, development zoning of current dwelling of residency, period of construction of current dwelling of residency (National Statistics Office, 2022).

The third section, 'Perceptions of Built Heritage' was structured in two parts; the first was a selection of photos aimed at determining the perceived view of heritage, while the second was based on Busch and Wennes' (2012) study on changing values, with the choice of values based on Barton and Grant's (2016) *Health Impacts on the Built Environment – A Health Map for the Local Human Habitat* (Barton and Grant, 2006; Busch and Wennes, 2012).

This paper focuses on the results and analysis from the third segment of the questionnaire, specifically the questions directed at understanding the values being prioritised.

Data Analysis Procedure:

The respondents' data was inputted into IBM SPSS Statistics 29 and subject to statistical analysis, specifically 'exploratory factor analysis', with regression analysis to respond to RQ1. The final number of factors was determined by the data and the author's interpretation of them. The data was further subjected to non-parametric ANOVA tests: Friedman (distribution of ranks) to respond to RQ2.

The Friedman Test was selected as a robust non-parametric statistical method to analyse the ranking of values across respondents. This approach was appropriate given the ordinal nature of the Likert-scale data. Similarly, exploratory factor analysis (EFA) was used to identify latent factors underlying the values prioritized by respondents.

The choice of EFA was justified by its ability to handle complex, multidimensional datasets while simplifying interpretation. Additionally, the reliability of the factors was confirmed using Cronbach's alpha, which yielded values above 0.88, indicating excellent internal consistency. These techniques collectively ensured the robustness and interpretability of the findings.

Factor analysis loaded best on 6 factors and 45 statements, which in combination explained 67.22% of the variance. Some statements were omitted (i.e. statements *Q24J – Which of the following do you consider important for your quality of life? Recreation and Entertainment, Q24K – Which of the following do you consider important for your quality of life? Opportunities of Education, Q24R – Which of the following do you consider important for your quality of life? Sustainable practices, Q24N – Which of the following do you consider important for your quality of life? Social Capital and Networks, Q24O – Which of the following do you consider important for your quality of life? Community Empowerment, Flourishing and Identity, Q25N – Which of the following have become more important for you in the last 10 years? Social Capital and Networks, Q25O – Which of the following have become more important for you in the last 10 years? Community Empowerment, Flourishing and Identity, Q25Q – Which of the following have become more important for you in the last 10 years? Work-Life Balance, Q25R – Which of the following have become more important for you in the last 10 years? Sustainable practices*) since they explained small variance and due to these falling under factors which were defined by one or two variables, meaning that these were generally unreliable and unstable (Tabachnick and Fideli, 2007).

The factors were omitted with scientific utility, with variables that give a low level of association with several factors at the same time neglected in the analysis. Table 1 shows which statements are grouped under each of the six factors.

Table 1. *Factors*[a]

	Factors					
	1	**2**	**3**	**4**	**5**	**6**
Q25G.Which of the following have become more important for you in the last 10 years? **Protection of Cultural Heritage**	0.845					
Q25F.Which of the following have become more important for you in the last 10 years? **Quality of buildings, open spaces and places**	0.832					
Q25H.Which of the following have become more important for you in the last 10 years? **Adequate planning of streets and routes**	0.826					
Q25D.Which of the following have become more important for you in the last 10 years? **Air Quality and Levels of Pollution**	0.699					
Q25E.Which of the following have become more important for you in the last 10 years? **Supply of Water and Distribution of Land**	0.695					
Q25P.Which of the following have become more important for you in the last 10 years? **Physical and/or Mental Well-Being**	0.635					
Q24H.Which of the following do you consider important for your quality of life? **Adequate planning of streets and routes**	0.572					
Q24G.Which of the following do you consider important for your quality of life? **Protection of Cultural Heritage**	0.560					
Q26D.Which of the following have become less difficult for you to prioritise over the last 10 years? **Air Quality and Levels of Pollution**		0.922				
Q26C.Which of the following have become less difficult for you to prioritise over the last 10 years? **Protection of the Natural Habitats and Environments**		0.897				
Q26F.Which of the following have become less difficult for you to prioritise over the last 10 years? **Quality of buildings, open spaces and places**		0.848				
Q26A.Which of the following have become less difficult for you to prioritise over the last 10 years? **Effects and Mitigation of Climate Change**		0.842				
Q26B.Which of the following have become less difficult for you to prioritise over the last 10 years? **Protection of Biodiversity**		0.838				
Q26H.Which of the following have become less difficult for you to prioritise over the last 10 years? **Adequate planning of streets and routes**		0.780				
Q26E.Which of the following have become less difficult for you to prioritise over the last 10 years? **Supply of Water and Distribution of Land**		0.736				
Q26G.Which of the following have become less difficult for you to prioritise over the last 10 years? **Protection of Cultural Heritage**		0.707				
Q26P.Which of the following have become less difficult for you to prioritise over the last 10 years? **Physical and/or Mental Well-Being**		0.705				
Q26Q.Which of the following have become less difficult for you to prioritise over the last 10 years? **Work-Life Balance**		0.653				
Q26R.Which of the following have become less difficult for you to prioritise over the last 10 years? **Sustainable practices**		0.629				

Q25L.Which of the following have become more important for you in the last 10 years? **Financial Wealth Creation**	0.854				
Q25M.Which of the following have become more important for you in the last 10 years? **Economic Market Growth**	0.820				
Q25I.Which of the following have become more important for you in the last 10 years? **Opportunities of Employment**	0.812				
Q24M.Which of the following do you consider important for your quality of life? **Economic Market Growth**	0.767				
Q24L.Which of the following do you consider important for your quality of life? **Financial Wealth Creation**	0.738				
Q25K.Which of the following have become more important for you in the last 10 years? **Opportunities of Education**	0.680				
Q25J.Which of the following have become more important for you in the last 10 years? **Recreation and Entertainment**	0.573				
Q24I.Which of the following do you consider important for your quality of life? **Opportunities of Employment**	0.492				
Q26M.Which of the following have become less difficult for you to prioritise over the last 10 years? **Economic Market Growth**		0.873			
Q26L.Which of the following have become less difficult for you to prioritise over the last 10 years? **Financial Wealth Creation**		0.842			
Q26K.Which of the following have become less difficult for you to prioritise over the last 10 years? **Opportunities of Education**		0.785			
Q26I.Which of the following have become less difficult for you to prioritise over the last 10 years? **Opportunities of Employment**		0.710			
Q26N.Which of the following have become less difficult for you to prioritise over the last 10 years? **Social Capital and Networks**		0.708			
Q26J.Which of the following have become less difficult for you to prioritise over the last 10 years? **Recreation and Entertainment**		0.582			
Q26O.Which of the following have become less difficult for you to prioritise over the last 10 years? **Community Empowerment, Flourishing and Identity**		0.573			
Q24Q.Which of the following do you consider important for your quality of life? **Work-Life Balance**			0.508		
Q24P.Which of the following do you consider important for your quality of life? **Physical and/or Mental Well-Being**			0.491		
Q24F.Which of the following do you consider important for your quality of life? **Quality of buildings, open spaces and places**			0.484		
Q24D.Which of the following do you consider important for your quality of life? **Air Quality and Levels of Pollution**			0.468		
Q24E.Which of the following do you consider important for your quality of life? **Supply of Water and Distribution of Land**			0.464		
Q24A.Which of the following do you consider important for your quality of life? **Effects and Mitigation of Climate Change**					0.845
Q24B.Which of the following do you consider important for your quality of life? **Protection of Biodiversity**					0.831

Q25A.Which of the following have become more important for you in the last 10 years? **Effects and Mitigation of Climate Change**	0.738
Q24C.Which of the following do you consider important for your quality of life? **Protection of the Natural Habitats and Environments**	0.712
Q25B.Which of the following have become more important for you in the last 10 years? **Protection of Biodiversity**	0.677
Q25C.Which of the following have become more important for you in the last 10 years? **Protection of the Natural Habitats and Environments**	0.568

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.[a] a. Rotation converged in 19 iterations.
Source: *Author's calculation.*

Table 2. *Factors extracted and themed.*

Factor 1 | Urban Sustainability	Protection of Cultural Heritage; Quality of buildings, open spaces and places; Adequate planning of streets and routes; Air Quality and Levels of Pollution; Supply of Water and Distribution of Land; Physical and/or Mental; Well-Being; Protection of the Natural Habitats and Environments
Factor 2 | Sustainable Living Standards	Air Quality and Levels of Pollution; Protection of the Natural Habitats and Environments; Quality of buildings, open spaces and places; Effects and Mitigation of Climate Change; Protection of Biodiversity; Adequate planning of streets and routes; Supply of Water and Distribution of Land; Protection of Cultural Heritage; Physical and/or Mental Well-Being; Work-Life Balance; Sustainable practices
Factor 3 | Prosperity	Financial Wealth Creation; Economic Market Growth; Opportunities of Employment; Opportunities of Education; Recreation and Entertainment
Factor 4 | Economic and Social Development	Economic Market Growth; Financial Wealth Creation; Opportunities of Education; Opportunities of Employment; Social Capital Networks; Recreation and Entertainment; Community Empowerment, Flourishing and Identity
Factor 5 | Spatial Well-Being	Work-Life Balance; Physical and/or Mental Well-Being; Adequate planning of streets and routes; Quality of buildings, open spaces and places; Air Quality and Levels of Pollution; Supply of Water and Distribution of Land; Opportunities of Employment
Factor 6 | Safeguarding the Natural Environment	Effects and Mitigation of Climate Change; Protection of Biodiversity; Protection of the Natural Habitats and Environments; Air Quality and Levels of Pollution

Source: *Author's compilation.*

Factor 1, which has now been termed "Urban Sustainability", explained 29.14% of the variance and comprised 8 items. Factor 2, which has now been termed "Sustainable Living Standards" explained 19.61% of the total variance and comprised 10 items. Factor 3, which has now been termed "Prosperity" explained 6.16% of the total variance and comprised 8 items. Factor 4, which has now been termed "Economic and Social Development" explained 4.85% of the total variance and comprised 7 items. Factor 5, which has now been termed "Spatial Well-Being"

explained 4.24% of the total variance and comprised 5 items, and Factor 6, which has now been termed "Safeguarding the Natural Environment" explained 3.23% of the total variance and comprised 6 items (Hair *et al.,* 1998).

The internal consistency reliability of the measures via Cronbach's alpha was assessed when the data showed that a group of items could be grouped into a theme. Cronbach's alpha revealed that the measures of the factors were internally consistent with scale reliability (Cronbach's α = between 0.881–0.945), as shown in Table 3. The items were then combined into a single Likert scale and the mean (M) was computed as a measure of central tendency, while the standard deviation (SD) as a measure of spread (Dalli Gonzi *et al.,* 2019).

Exploratory factor analysis, via principal components extraction with direct oblimin and with Kaiser normalization, was assessed by computing the Cronbach's alpha coefficients. The Kaiser–Meyer–Olkin (KMO) statistic, which measures the sampling adequacy for suitability of applying factor analysis, fell within the acceptable range (above 0.6), with a value of 0.919, describing excellent reliability (Hinton et al., 2014). This further supported continuance of factor analysis and so the analysis proceeded.

Table 3. *Cronbach's alpha values (n = 388)*

Factor	Item	Mean	Minimum	Maximum	Cronbach's Alpha
1	8	4.543	4.387	4.675	0.920
2	11	3.189	2.985	3.410	0.945
3	8	4.166	3.851	4.575	0.894
4	7	2.821	2.603	2.943	0.886
5	5	4.644	4.528	4.758	0.881
6	6	4.429	4.307	4.562	0.896
Computed Model - Resilient and Sustainable Urban Transformation	6	3.860	2.442	1.064	0.586

Source: *Author's calculations.*

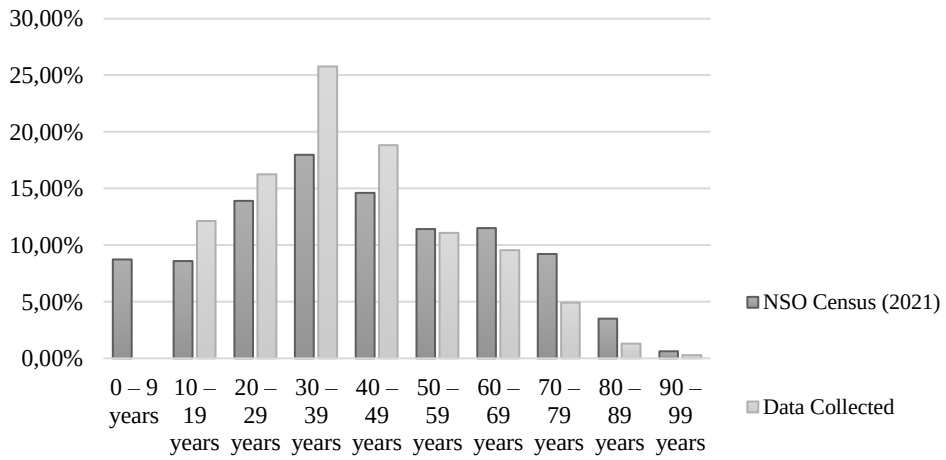
The Cronbach's alpha coefficients of this scale were between 0.856–0.944. Therefore, it may be concluded that this scale is reliable as part of our statistical analysis. These 6 factors and 45 statements were computed and multiple linear regression carried out to determine how this measure varies with demographic factors, namely (Q1) age, (Q2) gender, (Q3) education, (Q4) occupation, (Q5) 'racial origin' (as defined in NSO, 2022), (Q6) religious affiliation, (Q7) country of birth, (Q8) country of residence, (Q9) duration of residency in the current country, (Q10) residency in other countries, (Q11) duration of residency in other countries, (Q12) location of residency growing up, (Q13) type of dwelling of residency growing up (Q14) tenure of dwelling of residency growing up, (Q15) development zoning of dwelling of residency growing up, (Q16) period of construction of dwelling of

residency growing up, (Q17) current location of residency, (Q18) type of current dwelling of residency, (Q19) tenure of current dwelling of residency, (Q20) development zoning of current dwelling of residency, (Q21) period of construction of current dwelling of residency. Friedman Test was then used to determine if there were differences which were statistically significant between the distributions of demographic groups.

4. Research Results and Discussion

Participant Demographics:
The sample comprised of a total of 388 valid responses from participants whose demographics related to age, gender, level of education, 'racial origin' (as defined in NSO, 2022), religious affiliation, country of birth, current locality of residence and current dwelling of residence are shown in the figures and tables below. The sample set was also compared to the data from the NSO Census 2021, to understand whether the sample captured a reflection of the general public in the Maltese Islands.

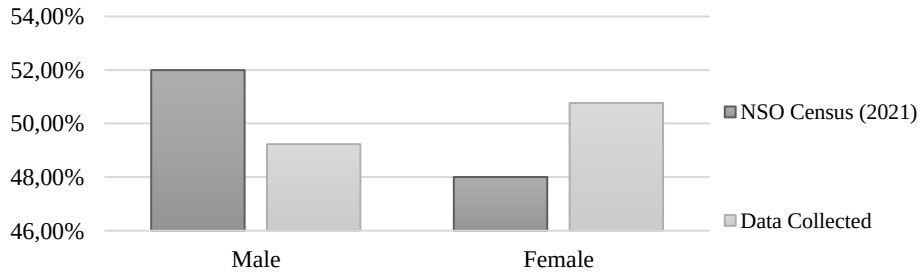
Figure 1. *Participants' age compared to NSO Census (2021) data (authors' compilation).*



Source: *Own study.*

The largest number of respondents are between the ages of 30 – 39 years (25.77%), while the other age groups are well represented in relation to national data. The same can be said for the gender groups. The majority of the participants hold a Masters Level Degree or equivalent (34.79%), followed by a Bachelors Level Degree or equivalent (20.62%). Here, the percentage of contribution of participants with these levels of education is significantly higher than national statistics. Similarly, in terms of occupation, the majority of participants hold a higher managerial, administrative and professional positions (38.1%).

Figure 2. *Participants' gender compares to NSO Census (2021) data (authors' compilation).*



Source: *Own study.*

Table 4. *Participants' level of education compared to NSO Census (2021) data*

Level of Education	NSO Census (2021)	Data Collected
No School or Pre-Primary Level	0.80%	0.00%
Primary Level, Special Schools or Resource Centres	11.61%	2.06%
City and Guild Basic (Part 1)	30.60%	0.26%
Secondary Level, O-Level, SEC, GCE, SSCandP		7.73%
Introductory of Basic Skills Certificate		0.77%
Foundation Certificate		0.00%
First Diploma / Certificate	24.24%	1.29%
Intermediates or A-Levels, Matriculation Certificate, QSI, IB/EB Diploma, Liceo Scientifico / Classico		4.90%
Trade School Qualifications Pre-2000 or City and Guild (Part 3), Journeyman's Certificate Technical Level	8.16%	1.55%
National / Extended / Advanced Vocational Diploma		0.26%
Diploma / International / General Diploma / Certificate		2.84%
Undergraduate Diploma	3.14%	15.46%
Bachelors Level Degree or equivalent	11.79%	20.62%
Masters Level Degree or equivalent, Post-Graduate Degree, Long First Degrees	8.59%	34.79%
Doctoral Degree	1.07%	7.47%

Source: *Authors' compilation.*

The majority of participants identified as Caucasian (89.43%) and as Roman Catholic (83.50%), with the percentage of participation similar to national statistics. The proportion of Maltese nationals among survey respondents was higher than the proportion in the national data (Figure 5).

Figure 3. *'Racial origin' that participants identified with, compared to NSO Census (2021) data (authors' compilation).*

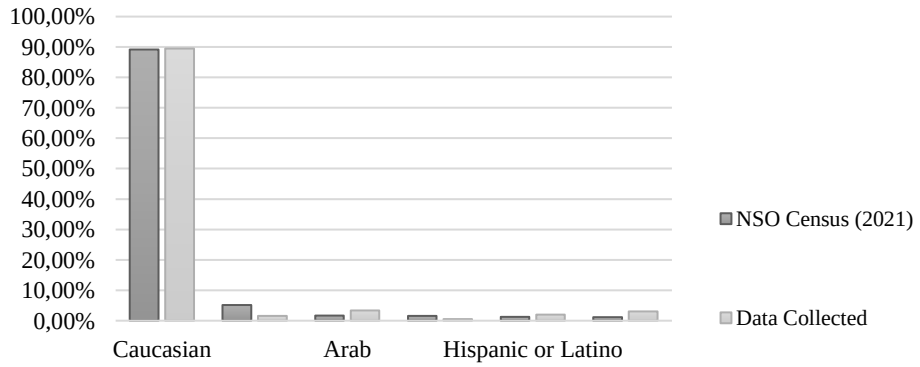


Figure 4. *Participants' religious affiliation compared to NSO Census (2021) data (authors' compilation).*

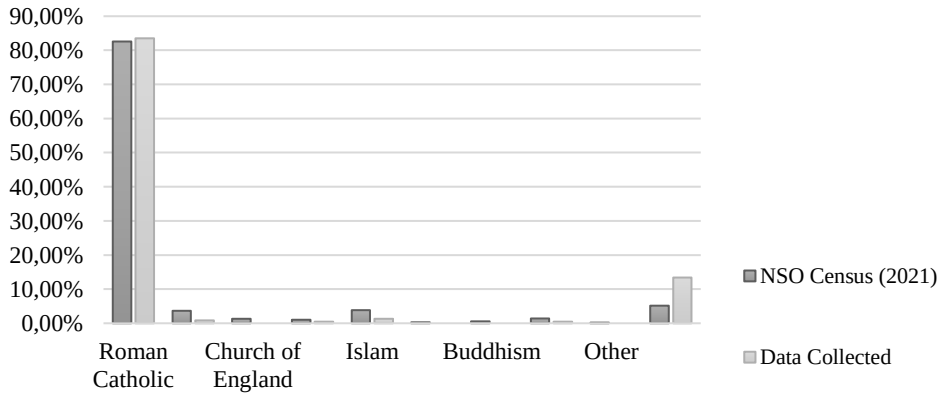


Figure 5. *Participants' country of birth compared to NSO Census (2021) data (authors' compilation).*

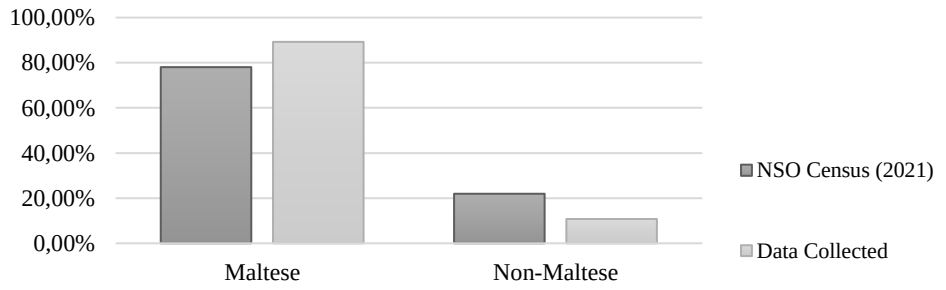


Figure 6. *Participants' current locality of residence compared to NSO Census (2021) data (authors' compilation).*

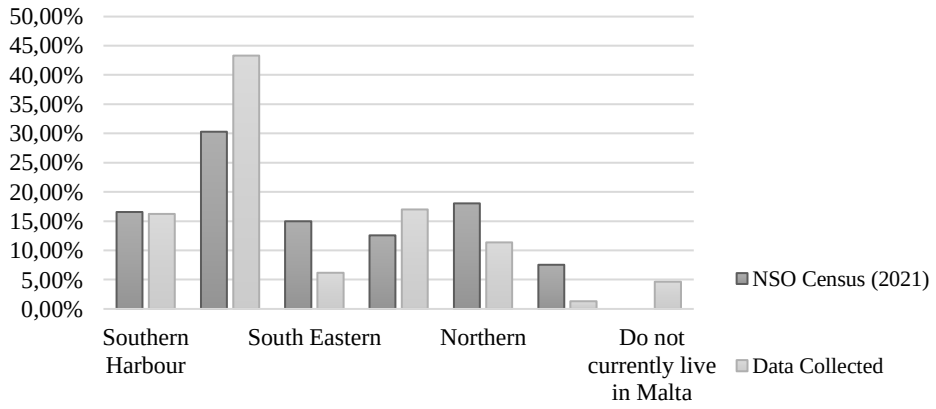


Table 5. *Participants' current dwelling of residence compared to NSO Census (2021) data*

Type of Dwelling	NSO Census (2021)	Data Collected
Terraced House / Townhouse / House of Character	22.71%	33.76%
Semi / Fully Detached House	4.38%	14.18%
Maisonette / Ground floor tenement	23.94%	16.24%
Flat / Apartment / Penthouse	48.36%	34.79%
Suite of rooms forming part of a housing unit		0.26%
Semi / Fully detached farmhouse (unconverted)	0.62%	0.52%
Garage		0.26%

Source: *Authors' compilation.*

With regards to current locality of residence, the most represented participation was from the Northern Harbour (43.30%), also higher than the national statistics proportion. The other areas are generally well represented, except the South Eastern and Gozo/Comino areas, for which the proportion of participants was lower when compared to national statistics. The most represented typology of current dwelling of residence was the flat/apartment/penthouse (34.79%) closely followed by the terraced house/townhouse/house of character (33.76%). While the first was higher than national statistics, the latter was significantly lower. The other types of residential typologies were well represented.

Values prioritised by a changing society:

Here, the values that are being prioritised by society as established (RQ1). The Friedman Test resulted in a level of significance of less than 0.05. This illustrates that the same respondents prioritise different values, Table 4 showing the mean rank.

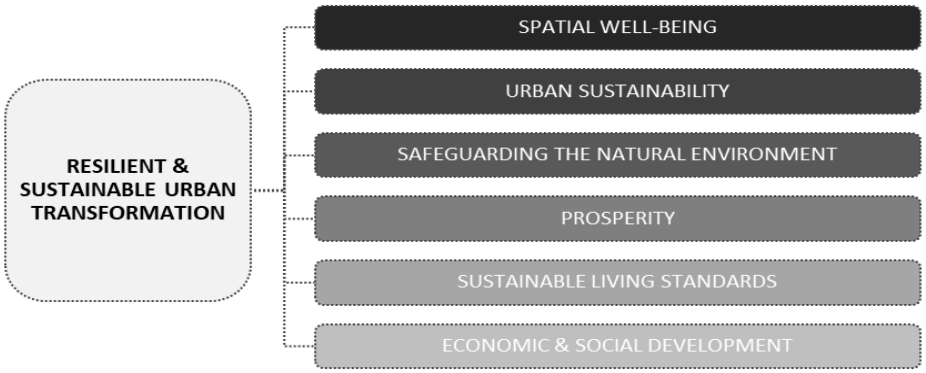
Table 6. *Values Ranking*

Values	Mean Rank
F5 | Spatial Well-Being	5.04
F1 | Urban Sustainability	4.74
F6 | Safeguarding the Natural Environment	4.45
F3 | Prosperity	3.07
F2 | Sustainable Living Standards	2.39
F4 | Economic and Social Development	1.31

Source: *Authors' compilation.*

The hierarchical relationship among themes is illustrated in Figure 7; 'Spatial Well-Being' is the most prioritized value, followed by 'Urban Sustainability' and 'Safeguarding the Natural Environment.' This gives an indication of the values currently prioritised by the society living in Malta. Statistically, data also allowed for the factors to be combined into one factor, this being termed by the author as 'Resilient and Sustainable Urban Transformation'.

Figure 7. *Author's infographic showing ranking of societal priorities, highest to lowest read from the top-downwards. All these factors could be collected into on term 'Resilient and Sustainable Urban Transformation'.*



Relationship between demographic variables and the values prioritised:

The ANOVA test was used to analyse the values prioritised against the demographic variables (RQ2). The computed model measures show a mean of 3.86 and Cronbach Alpha = 0.586, which shows moderate reliability, as shown in Table 3 (Hinton et al., 2014). The multiple regression analysis [$F_{21,366} = 2.209$, $p < 0.01$] and the variables explained 11.2% of the variability in the model, as shown in Table 7.

Table 7. *Model Summary*

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	0.335[a]	0.112	0.062	0.41083

a. Predictors: (Constant), Q21.What is the period of construction of the dwelling you currently reside in?, Q12.Where did you live growing up?, Q19.What is the tenure of the dwelling you currently reside in?, Q5.'Racial Origin' (as defined by NSO), Q2.Gender, Q1.Age, Q13.What type of dwelling did you reside in growing up?, Q15.Was the dwelling you resided in growing up within a designated area or under protection?, Q10.Have you resided in other countries?, Q6.Religious Affiliation, Q8.Country of residence, Q4.Occupation, Q14.What was the tenure of the dwelling you resided in growing up?, Q18.What type of dwelling do you currently reside in?, Q16.What was the period of construction of the dwelling you resided in growing up?, Q7.Country of birth, Q9.How long have you been residing in the current country?, Q3.Education, Q20.Is the dwelling you currently reside in within a designated area or under protection?, Q17.Where do you currently live?, Q11.For how many years have you resided in other countries?

Source: *Author's calculations.*

The computed one-way analysis of variance (ANOVA) was used to show that there are statistically significant differences between the means of the independent (unrelated) groups ($p < 0.01$), as shown in Table 8.

Table 8. *Analysis of variance (ANOVA)[a]*

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
1	*Regression*	*7.828*	*21*	*0.373*	*2.209*	*0.002[b]*
	Residual	*61.774*	*366*	*0.169*		
	Total	*69.602*	*387*			

a. Dependent Variable: Resilient and Sustainable Urban Transformation.

b. Predictors: (Constant), Q21.What is the period of construction of the dwelling you currently reside in?, Q12.Where did you live growing up?, Q19.What is the tenure of the dwelling you currently reside in?, Q5.'Racial Origin' (as defined by NSO), Q2.Gender, Q1.Age, Q13.What type of dwelling did you reside in growing up?, Q15.Was the dwelling you resided in growing up within a designated area or under protection?, Q10.Have you resided in other countries?, Q6.Religious Affiliation, Q8.Country of residence, Q4.Occupation, Q14.What was the tenure of the dwelling you resided in growing up?, Q18.What type of dwelling do you currently reside in?, Q16.What was the period of construction of the dwelling you resided in growing up?, Q7.Country of birth, Q9.How long have you been residing in the current country?, Q3.Education, Q20.Is the dwelling you currently reside in within a designated area or under protection?, Q17.Where do you currently live?, Q11.For how many years have you resided in other countries?

Source: *Author's calculations.*

The regression coefficients yield some significant findings. The gender of the participants has a significant effect on the Resilient and Sustainable Urban Transformation ($\beta=0.216$, $t=4.143$ $\rho<0.001$). Similarly, the tenure of the current

dwelling of residency has a significant negative influence on the on the Resilient and Sustainable Urban Transformation (β= -0.122, t=-2.098 ρ<0.1). All other demographics do not show a significant relationship to on the Resilient and Sustainable Urban Transformation (ρ<0.1, 0.5 or 0.01).

Limitations:
The study, while offering valuable insights and contributions, has a number of limitations which should be acknowledged. The data was derived from self-reported questionnaire responses, as opposed to observed behaviour, and therefore, the results need to be treated with a degree of caution and developed further. Such biases could be address in future studies through the use of stratified random sampling. Expanding the research to include observational methods or longitudinal studies could validate the results from this study. It is important to note that while this study establishes a baseline for values for the second half of 2024, ongoing value mapping exercises are essential to capture changing societal values and priorities over time. Furthermore, expanding the geographic scope beyond the Maltese islands could reveal comparative insights applicable to other countries with similar challenges.

5. Conclusions and Recommendations

This paper sought to analyse the values being prioritised by society for the third and fourth quarter of 2024. These have been grouped in six themes, in order of the priority established by Friedman Ranking Test, as follows; (1) Spatial Well-Being, (2) Urban Sustainability, (3) Safeguarding the Natural Environment, (4) Prosperity, (5) Sustainable Living Standards and (6) Economic and Social Development. These results highlight that a delicate balance of economic, social, and environmental values are currently prioritised by society in Malta. These values have important implications for the management of built heritage in Malta. Rapid urban growth, seemingly driven by population increases and the subsequent housing demand, has created tensions between economic market growth and the preservation of built heritage assets.

Government grants aimed at the rehabilitation and conservation of built heritage promote economic activity and environmental sustainability through the retention of existing fabric and retrofitting practices. However, the increased construction production growth has induced heavy interventions on, or adjacent to, heritage properties, often destroying the surrounding historic urban contexts, compromising on spatial well-being and urban sustainability. Socially, the need for improved living standards, work-life balance, and physical and mental well-being indicates the influence of built environments and open spaces on social wellness. Environmentally, the study underscores the values of safeguarding the natural environment and concerns about climate change, emphasizing the integration of practices for the protection of biodiversity and mitigation strategies to climate change. The prioritization of air quality, water supply, and land distribution reflects a concerted effort to balance urban growth with environmental stewardship.

The prioritisation of values established by this study call for a balanced and holistic approach, echoing global frameworks, such as UNESCO's Historic Urban Landscape (UNESCO, 2010) and the United Nations' New Urban Agenda (United Nations General Assembly, 2016), advocating for the harmonious integration of economic, social, and environmental priorities in heritage management. It is becoming increasingly evident that a transdisciplinary approach to the built environment is required, integrating top-down (policy) and bottom-up approaches (public engagement) for decision making. Managing change across multiple disciplines has now become critical to ensure that our built heritage assets are preserved and incorporated into sustainable development strategies. Only then can we ensure 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987, p. 37).

This paper represents the initial phase of a doctoral study; consequently, the findings serve as a foundation for subsequent investigations. The Department of Construction and Property Management at the Faculty for the Built Environment, University of Malta, Malta, is responsible for the supervision of the doctoral study entitled "Change Management in the Built Heritage Sector: An Implementation Framework in Public Engagement and Decision-Making".

References:

Avrami, E., Mason, R. 2019. Mapping the Issues of Values (E. Avrami, S. MacDonald, R. Mason, and D. Myers, Eds.; pp. 9-33). The Getty Conservation Institute.

Barton, H., Grant, M. 2006. A health map for the local human habitat. The Journal of the Royal Society for the Promotion of Health, 126(6), 252-253. https://doi.org/10.1177/1466424006070466.

Bethlehem, J. 2009. Applied Survey Methods. A Statistical Perspective. John Wiley & Sons.

Bishop, I.D. 1997. Testing perceived landscape colour difference using the Internet. Landscape and Urban Planning, 37, 295-312.

Brundtland, G.H. 1987. Report of the World Commission on Environment and Development: Our Common Future. (United Nations General Assembly No. Document A/42/427.

Busch, T., Wennes, G. 2012. Changing values in the modern public sector: The need for value-based leadership. The International Journal of Leadership in Public Services, 8(4), 201-215. https://doi.org/10.1108/17479881211323599.

Calculator.net. 2008, 2024. Sample Size Calculator. Sample Size Calculator. https://www.calculator.net/sample-size-calculator.html.

Ceccarelli, P. 2017. Past Is Not a Frozen Concept: Considerations about Heritage Conservation in a Fast Changing World. Built Heritage, 1(3), 1-12.

Creswell, J.W. 2009. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rd ed.). SAGE Publications.

Cummings, J. 2023. Supply of new housing stock set to outstrip demand next year, report says. In Times of Malta. https://timesofmalta.com/articles/view/housing-stock-set-outstrip-demand-next-year-report-says.1026499.

Dalli Gonzi, R., Grima, S., Kizilkaya, M., Spiteri, J. 2019. The Dali Model in Risk-Management Practice: The Case of Financial Service Firms. Journal of Risk and Financial Management, 12(169), 15. https://doi.org/10.3390/jrfm12040169.

Eurostat. 2022. Key Figures of European Business. European Union.
Eurostat. 2023. Population and population change statistics. Eurostat. https://ec.europa.eu/eurostat/statistics.
Fouseki, K. 2022. Heritage Dynamics: Understanding and adapting to change in diverse heritage contexts. UCL Press.
Fredheim, L.H., Khalaf, M. 2016. The significance of values: Heritage value typologies re-examined. International Journal of Heritage Studies, 22(6), 466-481. https://doi.org/10.1080/13527258.2016.1171247.
Grima, R. 2016. But Isn't All Archaeology 'Public' Archaeology? Public Archaeology, 15(1), 50-58. https://doi.org/10.1080/14655187.2016.1200350.
Hinton, P., McMurray, I., Brownlow, C. 2014. SPSS Explained (2nd ed.). Routledge.
Lee, S. 2022. Community-centre sustainable heritage management. Reality and challenges in practice. In: K. Fouseki, M. Cassar, G. Dreyfuss, K. Ang Kah Eng (Eds.), Routledge Handbook of Sustainable Heritage (pp. 126-137). Routledge.
Løvaas, B.J. 2022. Values at Work: Mapping the Field Through the Lens of Methodological Approaches (E. Gry, B.J. Løvaas, S. Sirris, A. Wæraas, Eds.; pp. 15-38). Springer Nature. https://doi.org/10.1007/978-3-030-90769-3_2.
Machado, D. 2024. What is Heritage? Law, Heritage, and Value. In: L. Lixinski, L.K. Morisset (Eds.). The Routledge Handbook of Heritage and the Law (pp. 428-441).
National Statistics Office. 2022. Census of Population and Housing 2021: Preliminary Report. National Statistics Office. https://nso.gov.mt/wp-content/uploads/Census-of-population-2021-publication-web.pdf.
Peters, R. 2020. Conservation and engagement: Transforming and being transformed. In Heritage Conservation and Social Engagement. UCL Press.
Poulios, I. 2010. Moving beyond a Values-based Approach to Heritage Conservation. Conservation and Management of Archaeological Sites, 12(2), 170-185.
Poulios, I. 2014. The past in the Present: A Living Heritage Approach - Meterora, Greece.
Richards, J.M., Pevsner, N., Hastings, H. de C., Casson, H., Quentin Hughes, J. 1969. Malta (Foreword). Malta: Past, Present and Future, CXLVI(869), 3-6.
Schofield, J. (Ed.). 2014. Who Needs Experts? Counter-mapping Cultural Heritage. Routledge.
Sedera, R.M.H., Putra, R.Y., Nambinina, M. 2024. Beyond the Pandemic: Unraveling the Social and Behavioral Changes in Post-COVID-19. Asian Journal of Arts and Culture, 24(1), 8. https://doi.org/10.48048/ajac.2024.260537.
Smith, L. 2006. Uses of Heritage. Routledge. https://doi.org/10.4324/9780203602263.
Tabachnick, B., Fideli, L. 2007. Using Multivariate Statistics (5th ed.). Pearson Allyn.
Thake, C. 2014. Architecture in Post-Independence Malta. Past, Present and Future: Vol. XVI (D. Mallia, Ed.; pp. 89-100). Malta Historical Society.
UNESCO. 2010. Recommendation on the Historic Urban Landscape - Preliminary Report.
United Nations General Assembly. 2016. New Urban Agenda. United Nations.
Veldpaus, L. 2015. Historic urban landscape: Framing the integration of urban and heritage planning in multilevel governance. Eindhoven University of Technology.
Walters, N. 2013. From Values to Narrative: A New Foundation for the Conservation of Historic Buildings. Nternational Journal of Heritage Studies, 20(6), 634-650.
Wherrett, J.R. 1997. Natural Landscape Scenic Preference: Predictive modelling and the World Wide Web. Urban, Regional, Environmental Planning and Informatics in Planning in an Era of Transition, 775-794.