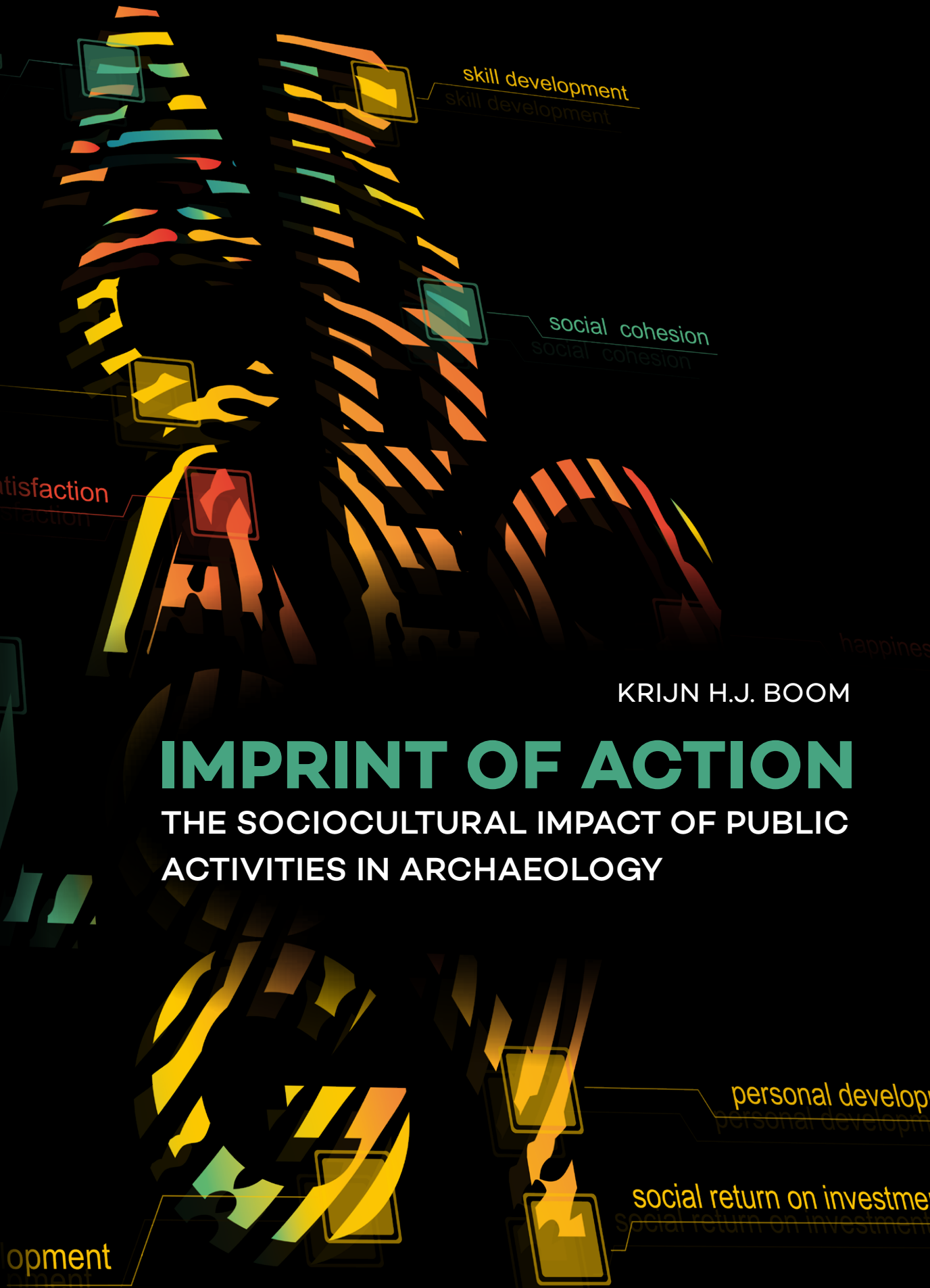

KRIJN H.J. BOOM

IMPRINT OF ACTION

THE SOCIOCULTURAL IMPACT OF PUBLIC ACTIVITIES IN ARCHAEOLOGY

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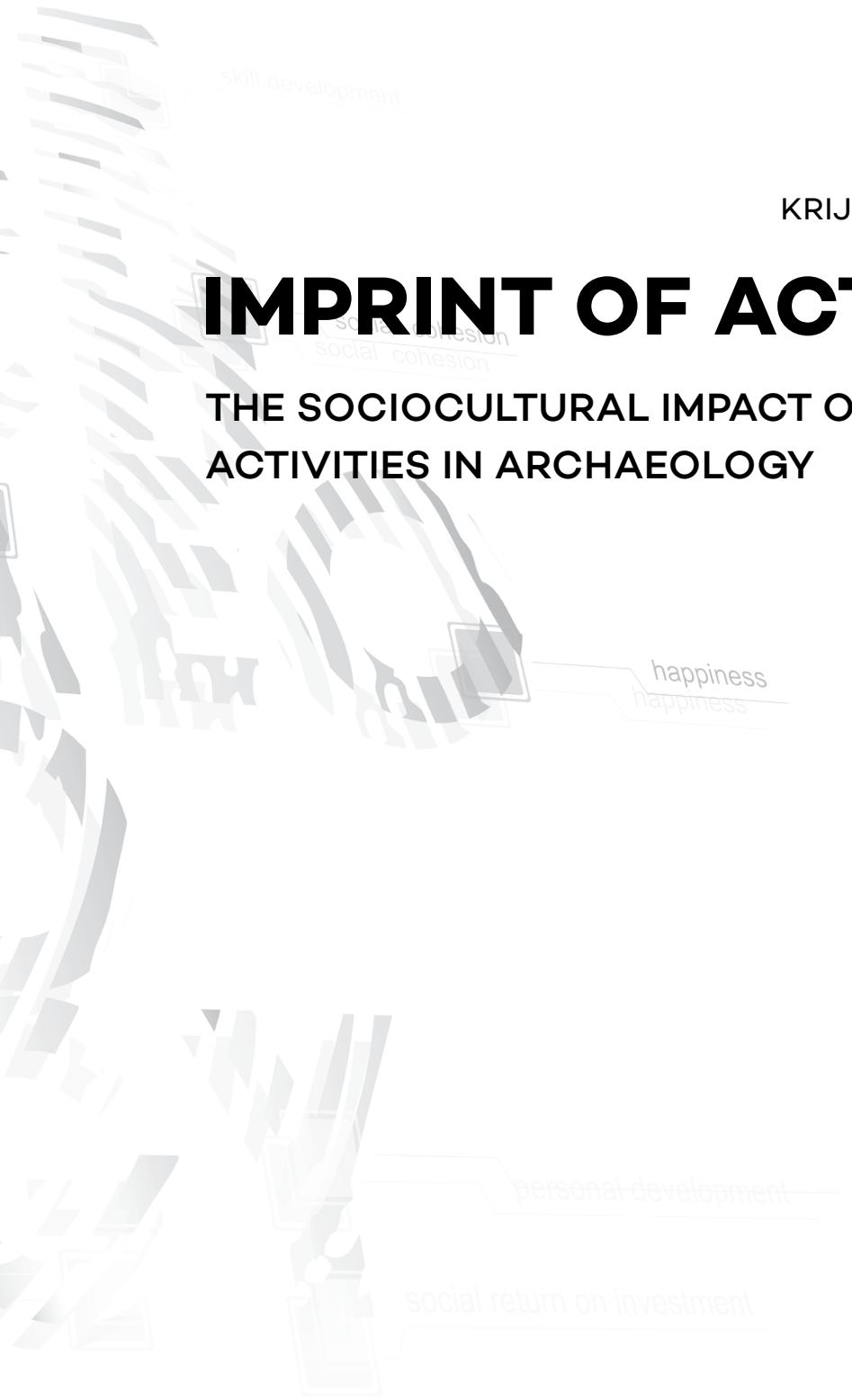

Published by Sidestone Press, Leiden
www.sidestone.com

Imprint: Sidestone Press Dissertations

Lay-out & cover design: Sidestone Press
Illustration cover: The Imprint of Action, Krijn H.J. Boom

ISBN 978-90-8890-699-2 (softcover)
ISBN 978-90-8890-700-5 (hardcover)
ISBN 978-90-8890-701-2 (PDF e-book)

The research leading to this dissertation forms part of the European NEARCH project (2013-2018), which received funding from the European Commission under the Culture Programme (EAC/S19/2018) framework. This publication reflects the views only of the author.

Contents

1. Introduction **9**
1.1 The value of cultural heritage and archaeology 10
1.2 Theoretical framework 12
1.3 Methodological framework 14
1.4 Research objectives and deliverables 15
1.5 Contents of this thesis 16

2. Theoretical and methodological framework **19**
2.1 Introduction 19
2.1.1 The concept of cultural heritage 20
2.1.2 Value assessment and value typology 21
2.1.3 Societal value of cultural heritage 26
2.1.3.1 Societal value of cultural heritage in cultural heritagemanagement 26
2.1.3.2 Societal value of cultural heritage in EU policy 29
2.1.4 Value of participation in archaeology 31
2.2 Sociocultural impact as a theoretical framework 34
2.2.1 Introduction 34
2.2.2 Impact versus value 35
2.2.3 Sociocultural impact in cultural heritage 36
2.3 Sociocultural impact as a methodological framework 42
2.3.1 Introduction 42
2.3.2 Online and face-to-face surveys 42
2.3.3 From goals to indicators to survey questions 43
2.3.3.1 Defining goals 44
2.3.3.2 Identifying indicators and developing and executing a methodology for collecting data 44
2.3.4 Analysis and interpretation of the results 45

3. Case study: DOMunder **47**
3.1 Introduction 47
3.2 Research goals for this case study 47
3.3 About DOMunder 48
3.3.1 History of the Domplein Square 48
3.3.2 The creation of DOMunder 50

3.4 The surveys 51
3.4.1 Introduction 51
3.4.2 Methodology 52
3.4.2.1 Visitor survey 52
3.4.2.2 Resident survey 56
3.4.2.3 Volunteer survey 59
3.5 Results 60
3.5.1 Visitor survey 60
3.5.1.1 Demographics 60
3.5.1.2 Local image and identity 62
3.5.1.3 Personal development 64
3.5.1.4 Social Cohesion 70
3.5.1.5 Community Empowerment and self-determination 71
3.5.1.6 Imagination and vision 73
3.5.1.7 Health and well-being 74
3.5.2 Resident survey 77
3.5.2.1 Demographics 77
3.5.2.2 Impact of living close to DOMunder 77
3.5.2.3 Sociocultural role of the Domplein Square compared to DOMunder 82
3.5.3 Volunteer survey 84
3.5.3.1 Demographics 84
3.5.3.2 Investment 85
3.5.3.3 Impact 87
3.6 Wrapping up results 90
3.6.1 Research goals 90
3.6.2 Activity goals 94

4. Case study: You(R) Archaeology 95
4.1 Introduction 95
4.2 Research goals for this case study 95
4.3 About the You(R) Archaeology contest 96
4.4 The surveys 98
4.4.1 Introduction 98
4.4.2 Methodology 98
4.5 Results 102
4.5.1 Demographics 102
4.5.2 Local image and identity 103
4.5.3 Personal development 104
4.5.4 Social cohesion 112
4.5.5 Community empowerment and self-determination 114
4.5.6 Imagination and vision 115
4.5.7 Health and Well-being 115
4.6 Wrapping up results 119
4.6.1 Research goals 119
4.6.2 Activity goals 121

5. Case study: Invisible Monuments **123**
5.1 Introduction 123
5.2 Research goals for this case study 123
5.3 About the Invisible Monuments, Digital Memory event 124
5.4 The surveys 126
5.4.1 Introduction 126
5.4.2 Methodology 127
5.5 Results 130
5.5.1 Demographics 130
5.5.2 Local image and identity 133
5.5.3 Personal development 135
5.5.4 Social cohesion 142
5.5.5 Community empowerment and self-determination 142
5.5.6 Imagination and vision 144
5.5.7 Health and Well-being 145
5.6 Wrapping up results 149
5.6.1 Research goals 149
5.6.2 Activity goals 150

6. Discussion **153**
6.1 Introduction 153
6.2 Comparing the case studies 154
6.2.1 Comparing activity goals 154
6.2.2 Comparing results of the surveys 154
6.2.2.1 Demographics 154
6.2.2.2 Local image and identity 156
6.2.2.3 Personal development 159
6.2.2.4 Social cohesion 167
6.2.2.5 Community empowerment and self-determination 168
6.2.2.6 Health and well-being 169
6.2.2.7 Closing remarks 172
6.2.3 Recommendations – a 'step-by-step' guideline 173
6.2.4 Cost Benefit of the case studies 174
6.3 Sustainable Development 175
6.3.1 Introduction 175
6.3.2 Emergence of the concept (within cultural heritage management) 175
6.3.3 Adding to the triple bottom line: culture as a fourth pillar 177
6.3.4 Wrap-up 180

7. Conclusion **181**

Acknowledgements **185**

References **187**

List of figures **201**

List of tables **207**

Appendices **209**
Appendix A1a: The DOMunder visitor survey (English) 209
Appendix A1b: The DOMunder visitor survey (Dutch) 214
Appendix A2a: The DOMunder resident survey (English) 220
Appendix A2b: The DOMunder resident survey (Dutch) 221
Appendix A3: The DOMunder volunteer survey (Dutch) 222
Appendix B1: The You(R) Archaeology participant survey 225
Appendix C1: The Invisible Monuments visitor survey 227

Summary **231**

Samenvatting **235**

Curriculum Vitae **239**

1

Introduction

Imprint of Action studies the sociocultural impact of public activities in archaeology. It does this through the analysis of survey data from three case studies – 'DOMunder', 'You(R) Archaeology', and 'Invisible Monuments'. The analysis and interpretation of case study data is based on a newly created methodological framework which finds its roots in the broader culture and arts sector. Imprint of Action is the first large-scale study on the exclusive subject of sociocultural impact in the archaeological field and, as such, is explorative in nature; it provides unique insights in the workings of interaction and participation in archaeological events, and answers calls for the open sharing of such research data.

This research takes place within the European NEARCH research project, in which the Faculty of Archaeology of Leiden University is a partner. A follow-up of the European ACE-project[1], which aimed to promote contemporary archaeology at a European wide level, by emphasizing its cultural, scientific, and economic dimensions, and its diverse interest for the wider public, the NEARCH project aims to "explore the various dimensions of public participation in contemporary archaeology and bring to the field, which is strongly influenced by economic and social developments in society, new ways of working and collaborating".[2] The NEARCH project is financed by the European Commission through the 'Culture programme' framework. The focus within the project lies heavily on the interaction with and the involvement of (local) communities and larger audiences, and on *new ways* of engaging with these. As a result, case studies within the project have a societal and interactive nature; two of these are used within this research, the You(R) Archaeology case study (chapter 4) and the Invisible Monuments case study (chapter 5). By incorporating two NEARCH case studies, this study forms part of the projects' deliverables in that it provides insights into the activity effects and outcomes. Furthermore, by connecting sociocultural impact research with Sustainable Development (see later), it also provides a theoretical analysis for one of the major research topics within the NEARCH project; 'Archaeology in a changing economy: towards sustainability'.

In order to contextualize the research, this introduction chapter will begin with a section on the value of cultural heritage and archaeology (1.1). This section explains

1 See http://e-archaeology.org/doing-archaeology/projects/ace-archaeology-in-contemporary-europe-professional-practices-and-public-outreach/

2 See http://www.nearch.eu

how the public values cultural heritage and archaeology and how this valuation is captured as a process. Furthermore, it describes how, in the cultural heritage management sphere, a shift can be observed away from expert and academic values towards more societal values, and how this relates to, and is dependent on, a similar shift in international developments, as well as development policies.

The second section (1.2), will deal with the theory behind the analysis of sociocultural impact. It will explain how values and impact are often used synchronically, but are, in fact, two distinct concepts which are intrinsically connected. It will also discuss the history and applicability of sociocultural impact analysis in the cultural heritage sector and how inspiration from the broader culture and arts field resulted in the creation of a methodological framework for the current research.

This methodological framework is elaborated on in section 1.3. An existing framework from the arts sector in the United Kingdom, developed by François Matarasso (1997), is used as a basis for the methodological basis of Impact of Action, combined with inspiration from studies similar to this one, but smaller in scale and focused on either a specific benefit, or audience. Combining the aforementioned aspects led to the formation of a list of sociocultural research subjects, or 'headers', and the identification of several indicators which were translated into survey questions.

Section four will summarize the research question and objectives. These are partly based on the objectives and deliverables of the European NEARCH research project[3], in which this study is situated, and partly based on the previously mentioned lack of data needed to increase our understanding of the sociocultural impact of archaeology.

A brief survey of the contents of this thesis, is presented in section 1.5.

1.1 The value of cultural heritage and archaeology

Cultural heritage can be defined as a broad concept consisting of a variety of ways in which people deal with their past, including past event, folklore, physical objects, mythology, literary associations, and places (Ashworth *et al.* 2007). As the way people interact with their past changes over time, so does the concept of cultural heritage, hence no unambiguous nor absolute definition of cultural heritage exists (Skeates 2000). In this research, the definition for cultural heritage as mentioned in the Faro Convention (Council of Europe 2005) is used, which states that "Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time".

Currently, the main interest in the value of cultural heritage lies in its growing role in today's society (Cultural Heritage Counts for Europe Consortium 2015; Blessi *et al.* 2014; Ander *et al.* 2013). The importance of cultural heritage, which includes archaeology, is recognized as serving an important role in European societal development (Council of the European Union 2014a). There has been a shift away from the predominant economic paradigm towards an emphasis on the sociological aspect of cultural heritage and its impact on society (Scott 2006). This is part of a

3 http://www.nearch.eu

growing pressure on governments to deal with sociological aspects which are mainly based on rapid social change; social cohesion, citizenship, and connectedness are but a few spearheads politicians use to emphasize the importance of the building of a collective trust (Scott 2006). The Council of Europe's Faro Convention, for example, sees cultural heritage as "a reflection and expression of [peoples] constantly evolving values, beliefs, knowledge, and traditions" (Council of Europe 2005). In a recent communication from the European Commission to the European Council titled 'Council conclusions on cultural heritage as strategic resource for a sustainable Europe' the societal importance of cultural heritage is emphasized. The document "presents a holistic approach to cultural heritage and recognizes it as a resource for enhancing the social capital in Europe" (Cultural Heritage Counts for Europe Consortium 2015, 52), and can be seen as the European Union's reply to the Faro Convention (Florjanowicz 2015). However, this broad and embedded view was not yet considered in the 1960's and 1970's, when archaeological heritage management became an established practice through the creation of various legal and advising documents. Archaeological heritage was, fueled by the narrow view of the 1964 Venice Charter, considered to be strictly a group of significant heritage objects with their own intrinsic historic and aesthetic values. In this time, conservation was primarily focused on the preservation of physical remains through interventions and legal protection (De la Torre 2013), and awareness raising (McGimsey 1997); the authentic nature of heritage material was considered to reside in its material (Viñas 2011). Some decades ago, as a result of many discussions on the innate character of heritage and its constituent values, it has become apparent that archaeological heritage conservation was not an isolated practice, but a matter of societal importance. The Australian ICOMOS Burra charter, for example, stresses the importance of social values attached to cultural heritage and the ICOMOS Nara document[4] acknowledges and pushes the importance of cultural diversity in relation to cultural heritage authenticity (ICOMOS 1988 and ICOMOS 1994, respectively). Both these and other charters and texts lead to a better understanding of the various values involved in archaeological heritage management and thus, of its importance for society.

The exact societal relevance of archaeological heritage, while generally accepted and stressed as important, is hard to grasp and demonstrate, and as a result forms an interesting. The importance of archaeological heritage for society is best understood through a concept called the values-based approach (Lafrenz Samuels 2008, Van der Linde 2012), in which a statement of significance is made based on the various values stakeholders' attribution to an archaeological site. This assessment is an important tool in making informed decisions on the conservation and investment planning of an archaeological site (Mason 2002). We now understand that because of the subjective nature of archaeological heritage, which is "dynamic, and related to the aims and goals of actors in the wider social context" (Van der Linde 2012, 33), values are always attributed, multiple, mutable, incommensurable, and often in conflict (de la Torre 2013, 155). However, based on the recognition that access to cultural heritage is considered a human right, we can also view cultural heritage as 'inclusive' (Fairclough 2009); a notion included in the objectives of this PhD research. Randal Mason (2002) provides

4 The Nara Conference on Authenticity was held in Nara, Japan, from 1-5 November, 1994

us with a comprehensive insight into the types of values attributed to archaeological heritage by the various stakeholders involved. He divides these values in economic and sociocultural; this typology will be used in the current study, with the latter value as the main focus area.

This dissertation investigates the sociocultural impact through public activities in archaeology as they provide a perfect setting, being organized to connect the public with archaeological heritage. In doing so, they encourage participation and interaction, which engenders sociocultural impacts, seen in for instance education (Lewis 2014), skill development (Henson 2012), and critical thinking (Rubertone 2007). Both the concept of Public Archaeology and Community Archaeology revolve around public participation but the former is broader, including all layers of the public and provides sociocultural aspects such as social involvement, pride, and health, while the latter describes the intersection of exclusively (local) communities and archaeology and provides aspects such as community empowerment and social inclusion (Nevell 2013). Important to note, however, is the fact that many public involvement activities are open to, and often visited by, people from different layers of society, and can even be targeted to a specific audience in the hopes of generating certain interest – values are not exclusive to one group of visitors. Following this line of reasoning, public activities form a potentially perfect melting pot of the societal values mentioned above and as such are a relevant and valuable opportunity to analyze sociocultural impact.

1.2 Theoretical framework

Understanding how and why these values are attributed to archaeological heritage is essential in gaining an understanding of the relation between people and heritage. However, this relation does not only flow from people to heritage. On the contrary, interacting with archaeological heritage also has the potential to create an *impact* in people's lives. Where values are "morals, principles, or other ideas that serve as guides to action (individual and collective)" (Mason 2002, 7), impact can be understood as "those effects that go beyond the artefacts and the enactment of the event and have a continuing influence upon, and directly touch, people's lives"; it is a "dynamic concept which pre-supposes a relationship of cause and effect. It can be measured through the evaluation of the outcomes of particular actions, be they an initiative, a set of initiatives forming a policy, or a set of policies forming a strategy" (Landry *et al.* 1993). This means that both value and impact describe the interaction between people and heritage, but have two distinct vantage points. They do, however, influence one another because they are two sides of the same 'coin' (Bollo 2013). Indeed, value and impact are intricately connected (Cultural Heritage Counts for Europe Consortium 2015, figure 1.1).

However, Pendlebury *et al.,* note that impact is not generated automatically, it can only be created when it is actively pursued (2014). In their study on built cultural heritage in the United Kingdom as a force for social inclusion, they note that cultural heritage should be seen as an "opportunity space in which social regeneration occurs" (Pendlebury *et al.* 2004, 12). This presupposes that heritage is a conduit, which has the potential to create impact and that clear objectives and definitions have to be in place for this impact to occur (Pendlebury *et al.* 2004). Therefore, Impact of Action

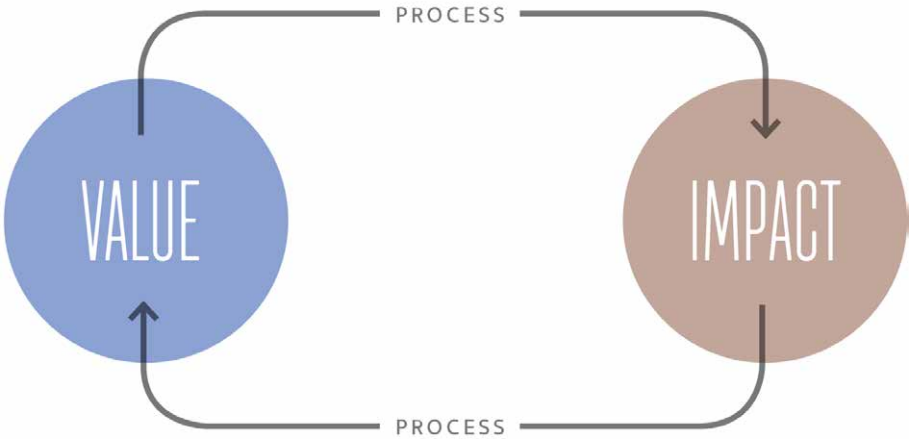

Figure 1.1: The relationship between value and impact as sides of the same 'coin'. Source: Cultural Heritage Counts for Europe Consortium 2015, 53.

studies the sociocultural impact of public activities in archaeology; the notion formulated by Pendlebury *et al.* forms an important hypothesis against which research outcomes can be tested.

The heritage sector is increasingly being held accountable for the spending of public funds and is pressured by local governments, international policies, and funding institutions to contribute to societal issues. Answering these challenges from a heritage perspective might be challenging, but I would argue that it is this shifting perspective that creates a platform for the sector to show its impact on society. This is in-line with Chatterjee *et al.'s* (2009), observation that the heritage sector can potentially contribute to mental and general health care. It also links to the goals and objectives of the NEARCH project, which aims "to highlight the societal component of archaeology, considered as the expression of a wider community rather than a restricted academic domain" and wants to "foster archaeology as a means to socially involve citizens and develop a sense of European citizenship" (NEARCH 2013).

It is argued that cultural heritage impacts four domains; culture, society, environment, and economy; the overlap of these domains is synergized in the concept of Sustainable Development (Cultural Heritage Counts for Europe Consortium 2015). The focus of this study lies in the former two aspects, as these provide a link to the growing pressure from governments to deal with rapid social change (Scott 2006), and their increasing expectations for the heritage field to help tackle these societal shifts. Indeed, some studies have already proven that cultural and archaeological heritage can be utilized as a 'sociocultural tool'. Pendlebury *et al.*'s study shows that cultural heritage can be used to enhance social inclusion (Pendlebury *et al.* 2004), while Fujiwara (2014) and Van den Dries *et al.* (2015) show that cultural heritage boosts community participation. Furthermore, studies have shown that cultural heritage contributes to Quality of Life (Maeer *et al.* 2016; Clayton *et al.* 2014), and Well-being (Blessi *et al.* 2014; Fujiwara *et al.* 2014; Ander *et al.* 2013, 2011; Fujiwara 2013; New Economics Foundation 2009). According to McLoughlin *et al.* (2006), the significance of cultural heritage's social value can be studied, expressed,

and proven by impact studies. These can show the advantages, but also the disadvantages of interacting with a particular heritage site, and outcomes can be extrapolated for future endeavors (McLoughlin *et al.* 2006).

The difficulty of studying sociocultural impact is that these intangible benefits are hard to express. This is different from, for instance, maintenance costs, which are much easier to assess (McLoughlin *et al.* 2006). Tested methodologies such as Stated and Revealed Preference Techniques, Contingent Valuation, and Travel Cost Analysis merely capture the economic value and benefit of cultural heritage, but in general fail to incorporate intangible benefits into the equation (Burtenshaw 2014).

To overcome the issues mentioned above, a new framework was created for this research. It is based on the work of François Matarasso, who studied the social impact of the arts sector in the United Kingdom (1997). In his study, titled '*Use or Ornament? The social impact of participation in the arts',* Matarasso showed that arts can contribute to social policy objectives (Reeves 2002). His work as still cited today (Crossick and Kaszynska 2016; Cultural Heritage Counts for Europe Consortium 2015; Taylor *et al.* 2015) and is relevant for this research because it deals with much of the issues described previously. Matarasso used Generic Social Learning outcomes for the creation of an indicator bank, which consists of a list of 50 social impact indicators, based under 6 different so-called headings; Personal development, Social cohesion, Community empowerment and self-determination, Local image and identity, Imagination and vision, and Health and well-being (Matarasso 1997). These headers and indicators are used as a template for this research, but are translated to connect with the goals and contexts of the three case studies, a step necessary for an accurate analysis (Bollo 2013); no template exists that can be consistently used across all situations (Reeves 2002).

1.3 Methodological framework

To pursue the research objective of Impact of Action, it was decided to create a cumulative and commensurable dataset based on Matarasso's work discussed above. In general, impact assessments within the cultural heritage field use a combination of methodologies in order to gather both quantitative and qualitative data (Bollo 2013), what Mason (2002) calls a 'toolbox approach'. While some researchers use a set methodology with 'hard' indicators, such as Social Return on Investment, or Cost-Benefit-Analysis, this research makes use of both online and face-to-face surveys to gather data. A combination of the two approaches allows for the use of specific advantages. Most notable advantages for online surveys are greater speed and lower costs (Duffy *et al.* 2005), and a more visual, flexible, and interactive workflow (Taylor 2000); interviewees of face-to-face surveys tend to answer more directly and clearly, they are less inclined to answer 'don't know' or 'neither/not sure' (Duffy *et al.* 2005).

For the creation of a methodological framework, the procedural steps put forward by Bollo (2013) were followed;

1. Defining goals, outcomes, and targets;
2. Identifying indicators;
3. Developing and executing a methodology for collecting data;
4. Interpreting;
5. Improving planning and evaluation.

As impact should be measured against the aims and goals of an activity or institution (Bollo 2013), defining case study goals and targets is the first step in the creation process. As stated, three case studies are included, and for each research goals and activity goals are posed. The former is based on the overall research goals of this study; the latter are goals set by the initiators of the case study activities; for DOMunder, this is Foundation Domplein 2013, for the You(R) Archaeology case study this is the Instituti per I Beni Artistici Culturali e Naturali (IBC), and for the Invisible Monuments case study this is the Aristotle University of Thessaloniki; the latter two are partners of the NEARCH project. As a second step, both sets of goals are combined in order to create a list of applicable indicators, based on the previously discussed framework of sociocultural impact created by François Matarasso (1997). Based on the North East Regional Museums Hub Tool[5], these indicators are then translated, via a 5-tier process, via the broader, theoretical first tier, step by step, into case specific survey questions (figure 1.2). After this process, the survey questions were included in the specific surveys and reviewed by the activity initiators.

The questionnaires included open and closed questions and had both a qualitative and quantitative focus. Open questions were included to provide interviewees with the opportunity to annotate some answers, thereby providing qualitative comments for quantitative questions. Closed questions were used for demographic data and for questions only having a select number of relevant answers. These answers were mostly based on a 5-point Likert-scale – a very common tool in sociological studies and surveys which uses a graded scale for answers (Likert 1932).

The surveys of the three case studies provided different, yet comparable, sets of data which were analysed with various techniques, such as bar charts, weighted averages, and statistical tests, in their corresponding chapters; the discussion chapter includes a section in which the case study data is compared and extrapolated.

1.4 Research objectives and deliverables

The objectives described below are based on the research question of this thesis; **what are both the depth and breadth of the sociocultural impact of public activities in archaeology?**

The main research objective is to show both aspects of the sociocultural impact of public activities in archaeology, and to discuss their implications for the field. This objective suits and follows the contemporary shift in EU policy and governance to emphasize the subjective and more qualitative aspects of society in order to create a better understanding of its current and future functioning (European Commission 2009; 2010). It also follows the discourse change in the cultural heritage field and its goals to better study the societal values and impacts in order to validate public expenditure and to show the value of cultural heritage. Furthermore, by creating a commensurable dataset on the sociocultural impact of archaeology, this research addresses the acute need for more data, which is as yet lacking (Crossick and Kaszynska 2016; Cultural Heritage Counts for Europe Consortium 2015; Burtenshaw 2014, 2013; Van den Dries 2014; Nevell 2013; Heritage Lottery Fund 2010; Labadi 2008; Selwood 2002).

5 http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources

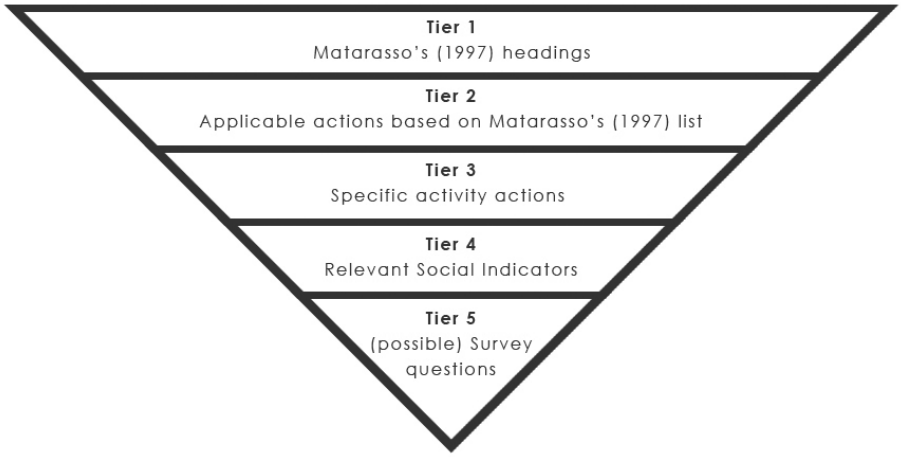

Figure 1.2: Translating Matarasso's headings to relevant indicators, and finally into case specific survey questions. Scheme after the North East Regional Museums Hub Tool (source: http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources).

Because there currently is insufficient understanding of how to measure and interpret sociocultural impact, and this study is the first to analyze sociocultural impact in archaeology on a commensurable scale, this research is explorative in nature and as such, results are indicative rather than absolute. However, by providing both case study data based on a unique framework, and commenting on the practicalities of performing impact research, this dissertation provides the heritage sector, politicians, and fellow researchers not only with a comprehensive insight into sociocultural impact measurement in the cultural heritage sector, but also with a practical tool for future research.

1.5 Contents of this thesis

Chapter two covers both the theoretical and the methodological frameworks on which this research is build. It provides an extensive discussion on the valuation process of cultural heritage and how a shift can be noted away from historic towards more societal values, in both the heritage management, and European policy fields. The chapter covers the workings of sociocultural impact in cultural heritage and these are connected to project's goals and contexts. The former topics lead to the creation of a framework, providing this research with an operational foundation.

In chapter three, the first out of the three case studies is discussed. Called 'DOMunder', this case study deals with a unique visitor experience in the Netherlands and analyses the sociocultural impact of that activity for three different audiences; visitors of the DOMunder activity, residents living close by, and volunteers working at DOMunder as tour guides. This case study functioned as a pilot project while the NEARCH projects were still under construction; both methodologies and practical approach were tested in the field. Results will show that sociocultural impact among these audiences varies, and that this might be dependent on the context of the activity, as well as the reasons for visiting or participating.

Chapter four covers the You(R) Archaeology case study. This case study is based on the creative contest held in 2016, which was part of the NEARCH project. The contest invited European citizens to provide their own creative ideas about archaeology and what inspires them by submitting artworks such as photographs, paintings and drawings, and videos. Participants were questioned in order to gain insight into the sociocultural impact their participation in this activity engendered. While in this case only one stakeholder group was present (the participants), differences in impact can still be noted which seems dependent on a variety of factors, including age and time investment.

Chapter five covers the third case study; Invisible Monuments. This activity was held in 2016 in Thessaloniki, Greece, and revolved around hidden or obstructed monuments being made 'visible' for the public in order for them to both appreciate these historical artefacts and turn them into places of living memory. By combining digital social media and mobile phone technology to raise public awareness, and combining this with a walking trail, visitors were provided with a unique public activity and experience. Both tourists and residents of Thessaloniki joined this activity; results show that by providing a local context and setting, visitors feel more connected to local archaeology. It also reveals a connection between how strongly people are impacted in their knowledge, and the positive impact on personal emotions, such as happiness and usefulness.

Chapter six covers the discussion. It is divided into three sections; the first section provides a comparison between the three case studies and discusses both the similarities and dissimilarities in corresponding data. It also connects case study outcomes with data derived from literature studies and similar case studies in order to better understand both the outcomes and their implications. It then discusses how sociocultural impact can be housed under the concepts of Quality of Life and Subjective Well-being, both gaining importance in cultural heritage management and in European policy making, especially in relation to social and economic development. The last section discusses how sociocultural impact, through the fields of Quality of Life and Subjective Well-being, contributes to Sustainable Development.

The final chapter (seven) summarizes the relevant conclusions which can be drawn from this study and which are valuable to future research and policy making.

2

Theoretical and methodological framework

2.1 Introduction

The value of cultural and archaeological heritage has been discussed and analyzed over the past decades by scholars and heritage institutions (Cultural Heritage Counts for Europe Consortium 2015). While initially the value of cultural heritage was linked more strongly to its intrinsic aspect, and the preservation of monuments and artefacts was prioritized, we now see that the societal value of cultural heritage becomes increasingly important (Cultural Heritage Counts for Europe Consortium 2015). The focus on a more inclusive society, and the increasing recognition of culture's valuable contribution, can be observed through guidelines and conventions put forward by UNESCO and ICOMOS, such as the Faro and Intangible Heritage conventions (Council of Europe, 2005; UNESCO 2003, respectively). This evolution is also occurring for archaeological heritage as it is inherently part of cultural heritage. However, for archaeology – especially in Europe – the shift towards a stronger societal appreciation cannot as yet be discerned in policy documents, such as the Valletta Convention, which are still more geared towards physical preservation. Furthermore, financial capital is still scarce in the archaeological field and much of the archaeological research in Europe is pressured by time constraints due to economic development, leaving little room for the exploration of values other than economic or intrinsic. Nonetheless, there is an opportunity for the field to prove and validate its societal relevance and thus connect to the overarching shift in values occurring in the cultural heritage field. This opportunity lies in the increasing requests from local and national governments, and international institutional bodies, to utilize culture and cultural heritage in order to answer to sociological issues and challenges, mainly those based on rapid social change such as the increasing individualization of society. The belief that cultural heritage can contribute to a large number of societal issues, such as social cohesion, Well-being, education, inclusiveness, and health, is now acknowledged by various legal and political institutions, including the European Union (Council of the European Union 2014a (Council of the European Union 2014b). Furthermore, the heritage field is actively lobbying to include culture as a fourth pillar of Sustainable Development, with the ultimate goal being that culture would be acknowledged and incorporated in the UN agenda's.

As a way to prove and validate the contribution of cultural heritage to these societal challenges and to capitalize on its added benefit, research into the economic and sociocultural impact of cultural heritage has also increased during the last decades, with an increasing emphasis on the latter aspect. However, research still needs to be done in order to find out if, and if so why, cultural heritage contributes to these societal issues, and how this can be observed, measured, and translated into commensurable and understandable data. Positioned within the cultural heritage sphere, this dissertation aims to show the sociocultural impact of public activities in archaeology by analysing data from three case studies gathered with a consistent method.

This chapter will both explain how archaeology, as part of cultural heritage, theoretically connects to the societal issues mentioned above, and which methodology is used as a foundation for the analysis of case study data. In the first section of this chapter (2.1), the value of cultural heritage and archaeology will be discussed. This section will expound on how people connect to and value archaeological heritage, and discuss why value assessment is important to be considered as a procedure for achieving an in-depth perspective of a site's importance. This theoretical analysis will be later used to identify sociocultural impact in cultural heritage and archaeology (section 2.2), and to create the methodological framework (section 2.3).

In order to research the sociocultural impact of public activities in archaeology, it is important to first explore and discuss how cultural heritage and archaeology are valued by the public. These values ascribed to cultural heritage give an insight into how people connect to heritage and influence how cultural heritage creates an impact; as value and impact are inherently two sides on the same coin (Cultural Heritage Counts for Europe Consortium 2015, 53, also see section two of this chapter).

This section describes the concept of cultural heritage, and how archaeology fits into that concept. It also describes the valuation process, called value assessment, and covers relevant theoretical aspects of value typologies. Furthermore, this section describes the shift from historic/preservation values to the more societal values as recognized in cultural heritage frameworks, which form important frameworks for the archaeological sector and, hence, for this thesis. Lastly, the value of participating in archaeology is discussed which defines the general setting of this PhD research as well as highlighting its relevance.

2.1.1 The concept of cultural heritage

Cultural heritage as a defined concept is relatively new, and while heritage etymologically derives from the word *patrimoine* – goods inherited from the father- and was defined as early as the 18th century, the aim to create a univocal and objective definition of the concept of heritage was set much later, in the second half of the 20th century (Cultural Heritage Counts for Europe Consortium 2015, 109; Vecco 2010, 322). In this historical context, cultural heritage can be connected to the emergence of archaeology and art history as fields of science, followed by an increased interest in cultural tourism, fashion, and antiquities; later, the concept was connected with the conservation and preservation of historic monuments (Cultural Heritage Counts for Europe Consortium 2015,35). Based on contemporary research, we can define cultural heritage as a broad concept consisting of a wide and diverse array of connections between people and their past, including, for instance, folk memory, mythology, literary

Cultural heritage		
Intangible heritage	*Tangible heritage*	
	Movable	Immovable
Art expressions: music, dance, literature, theater Martial arts Languages Living cultures (Oral) traditions Narratives Revolutions Networks Folklore	Artifacts Paintings Sculptures Objects Collections Media Audiovisual media Books Plays Scores Consumer and industrial goods	Built heritage Monuments: buildings, sculptures, inscriptions, cave dwellings (Listed) buildings: buildings in use Groups of buildings: city centers Sites (also underwater): archaeological, historical, ethnological Cultural landscapes

Figure 2.1: General classification of cultural heritage. After Klamer and Zuidhof 1998.

associations, and via physical remains (Ashworth *et al.* 2007). The concept is volatile and ever changing because it is determined by how society, down to a single person, defines, connects to, and utilizes the past. The way people interact with, perceive, and use the past changes over time, and hence there are no unambiguous nor absolute definitions of the concept of cultural heritage (Skeates 2000). Heritage is "dynamic in nature, being constantly interpreted and changed depending on the passage of time, the change of context, and the public's experiences and expectations. Heritage does not belong to any given group, but it is open – it belongs to all those who wish to identify with it" (Cultural Heritage Counts for Europe Consortium 2015, 35). For the sake of practicality, it is important to give a working definition of how the term cultural heritage is used within this research, as the concept is connected to issues such as heritage valuation, management, politics, and the main subject of this research: impact analysis in public activities in the archaeological sector.

A widely used, understood, and acknowledged general classification of cultural heritage is one which distinguishes between tangible and intangible objects (figure 2.1), and in which the former concept is further divided in movable and immovable aspects.

As illustrated in the figure, archaeology fits within the tangible variant of cultural heritage, both within the movable section for objects and artefacts, and the immovable section for archaeological sites and landscapes. This means that archaeology as a research field forms but one part of the broader concept of cultural heritage. It also means that archaeology is dependent upon, and has to fit within, the broader discourse discussions and developments of cultural heritage in order to understand its role, weight, and impact in society's valuation of heritage. Furthermore, the main subject of this research, sociocultural impact analysis, gained attention in the cultural heritage sector, focusing initially on the impact of the arts (Labadi 2008). The above warrants the initial emphasis on cultural heritage in this part of the thesis, before focusing more strongly on archaeology.

2.1.2 Value assessment and value typology

This sub-section will argue how the concept of value takes a central place within this research as it is strongly connected to impact analysis. The research on how the process of valuation works in respect to archaeological research, heritage management, and the social context of archaeology has gained attention in the last two decades

(Van der Linde 2012, but see also Smith *et al.* 2010; De la Torre 2013, 2002). As a reason for this, we can point to the increased inclination to use cultural heritage as a political tool in order to address contemporary societal issues, most notably in people's Quality of Life and Well-being (Dodd and Jones 2014; Ander *et al.* 2013; Galloway and Bell 2006). but also, because parallel to this, within heritage management, a discourse shift can be observed, wherein the meaning and use of value has changed, recently focusing more on the societal value of cultural heritage and archaeological material rather than the values of, for instance, preservation and the 'uniqueness' of archaeological artefacts or monuments (De la Torre 2013, Cultural Heritage Counts for Europe Consortium 2015, Van der Linde 2012, Lafrenz Samuels 2008). Contemporary significance assessments in the cultural heritage sector, where the total sum of values from the various stakeholders are compared and weighted in order to make valid and ethical management decisions (*e.g.* Mason 2002, 6), we see that values are stressed and emphasized differently depending on the continent and even within countries. In Anglo-American contexts, for example, spiritual and social values are very much taken into account, whereas in Africa there exists a relation between development, archaeology, and extreme poverty, and in continental Europe, under the Valletta Convention of 1992, the scientific values of the archaeological record are highly appreciated (Van der Linde 2012). Many values attached to cultural heritage are political in nature and are inherently attached to peoples' identity, which in turn can lead to problematic issues when heritage becomes threatened by conflict and war (Boom 2013; Perring and Van der Linde 2012; Barber 2006; Bevan 2006; O'Keefe 2006; Meskell 2002).

The wider appreciation within the cultural heritage management field for values attached to cultural heritage by those who have an interest has, according to Marte de la Torre, influenced how we conceptualize heritage (de la Torre 2013). She argues that "the expansion of the concept of heritage has been the direct result of the broadening of the values that are considered to have cultural significance, and these new values are now part of all decisions taken to protect and safeguard those special places" (de la Torre 2013, 157). However, when looking at the World Heritage nominations, others are less convinced about including, for instance, community values (van den Dries 2015), or values other than political ones (Bertacchini *et al.* 2016). Because the attribution of values to heritage is different for each person and for each circumstance, it is important to understand how this process works on an individual level. People assign values to cultural heritage in a large variety of ways and those are different based upon personal motivations, time and space; values attached to heritage are, as we understand them now, "subjective, dynamic, and related to the aims and goals of actors in the wider social context" (Van der Linde 2012, 33) As such, we can say that value attribution is always multi-temporal, multi-spatial, and multi-vocal (Van der Linde 2012, 36). This idea is described as the 'value-based management model', a useful concept for understanding impact analysis.

According to Jon Holden, "value is located in the encounter or interaction between individuals (who will have all sorts of preexisting attitudes, beliefs, and levels of knowledge) on the one hand, and an object or experience on the other" (Holden 2006, 15). This means that there is an interaction happening between a person and an object, but that this interaction does not happen in a vacuum. In fact, the very interaction with cultural heritage affects people's lives, both individually and on a larger scale;

"value is assigned and influences the quality of life for individuals, communities, and nations […]" (Smith *et al.* 2010, 16). This personal as well as communal valuation of cultural heritage implies that impact measurement frameworks have to be aligned to fit particular individual or community perceptions and views. As there are many different types of value people can assign to cultural heritage, researchers and scholars, hailing from a large variety of research angles and scientific backgrounds, have been trying to comprehend and get to grips with how this valuation works. The result of these endeavors is a large amount of literature, a relevant selection of which will be discussed in this paragraph.

On a conceptual level, Holden proposes a categorization of the value of culture and distinguishes three ways in which value can be conceived, which lie at the heart of value attribution; intrinsic, instrumental, and institutional (Holden 2004). These viewpoints are not mutually exclusive but can be complementary depending on who is attaching values (Holden 2009). Intrinsic values are related to the artistic contents of culture, and people view them as valuable per sé (Bollo 2013). This view is closely related to the well-known expression 'art for art's sake' in relation to the economic worth and subjective value of artworks, and the main idea that (well-known) artworks are deemed invaluable (Holden 2004). Intrinsic values are also used to describe the subjective effects of culture onto a person and as such are very hard to asses, not being measurable through standard quantitative indicators and metrics (Bollo 2013). Because this value viewpoint is subjective and is often seen as a 'last resort' to prove the value of culture, those who use it are often framed as elitist and are prone to media scrutiny and charges of mystification. This trend is strengthened by the fact that in the post-modern world concepts such as beauty and truth are viewed as being geographically and temporarily specific (Holden 2004), eliminating their applicability and thereby "have made using them in debate an embarrassment at best, contemptible at worst" (Holden 2004, 23). The instrumental viewpoint is connected to the idea of using culture as a 'tool' in order to achieve a certain goal, for instance economic profit or social inclusion (Bollo 2013). The instrumental value of culture is mainly stressed by policy makers as they utilize culture in order to achieve societal goals (Bollo 2013). Politics struggle to understand culture but research into cultural value has provided politicians with an understanding of why it is important to various stakeholders. However, their focus on the instrumental value can lead to a dysfunctional relationship between them, the professionals, and the public (Holden 2006). Institutional value, lastly, is related to how cultural institutions and organizations interact with the public and "flows from their working practices and attitudes, and is rooted in the ethos of public service" (Holden 2006, 17). This means that institutional value is rooted in the (ethics) concerns for the public and places cultural institutions in between the public and policymakers (Holden 2006). The care for the public can be expressed both in small and large ways, but it is through "recognising these values, and, crucially, deciding for itself how to generate them, that the moral purpose of an organisation becomes apparent, and where organisational rhetoric meets reality" (Holden 2006, 17).

For cultural heritage, a second distinction can be made on a somewhat lower level and can be incorporated into the three-way viewpoint Holden proposes. This distinction is based on the dichotomy between the economic and sociocultural values, which can be further divided into personal and private values, and social and/or

societal values; economic values are closely related to the instrumental use of value, and cultural values to the more intrinsic aspect of heritage (Klamer 2014). The differences between economic and sociocultural values are heavily debated, as they are trying to express the same thing, namely the value of heritage, but from such different fields that a dissonance is felt in between both approaches; Klamer (2004) classifies protagonists from those fields 'economists' and 'culturalists', respectively. The main dissension between these two perspectives lies in the fact that both have a different conception of the term 'value', and that they stem from two philosophies which cannot be reconciled (Burtenshaw 2014). Furthermore, the "use of archaeological sites, materials, and knowledge for economic development may sit uncomfortable with many in the discipline of archaeology" (Burtenshaw 2014, 48), mainly because heritage was traditionally appreciated for its cultural worth, hence utilizing cultural heritage for economic development is 'not-done'. Graham *et al.* (2000) summarize this by stating "there is a strong felt, and frequently articulated, view that any attempt to attach economic values to heritage, and to other cultural products and performances, is at best a pointless irrelevance and at worst an unacceptable soiling of the aesthetically sublime with the commercially mundane" (Graham *et al.* 2000, 129). In contrast, economists see those working in culture and advocating a strict boundary of sociocultural values as not existing in the real world, forgetting that the world revolves around markets and monetary transactions; culture and archaeology included (Burtenshaw 2014). Indeed, we can most certainly say that the economic value of archaeology and cultural heritage has had a great impact on its management, with globalising trends such as cultural tourism as one of the most prominent examples (Van der Linde 2012, but see also Klamer and Zuidhof 1999; Labadi 2008), but also with the upsurge of commercial and contract archaeology, mainly in European and Anglo-American heritage management (Van der Linde 2012). For Europe, the focus on the economic value of archaeology is strengthened by the adoption of the Valletta Convention (Council of Europe 1992), but since global development corporations are now also incorporating a concern for cultural heritage management in their practices, the focus on economic values has become a world-wide concern (Van der Linde 2012). Indeed, the focus on economic values is not without its problems. For instance, the World Bank's aim to reduce poverty is intrinsically linked to economic values and 'good governance' and this has led post-colonial governments to focus on sites being preserved which have the highest economic and touristic appeal, often neglecting non-western and local histories and values (Lafrenz Samuels 2008; 2010).

While the dichotomy between the economic and cultural values is strong, and scholars and researchers from both sides see no other option than to advocate for one or the other viewpoint (Klamer 2004), others advocate that a cross-over between both worlds is possible. Mason, for example, writes "Is heritage priceless, or can it be reasonably priced? The answer is: both" (Mason 2008, 12). However, within these bridging attempts, we can still discern the two philosophical backgrounds. On the one hand, we have 'cultural economics', thus labelled because of their attempt to incorporate cultural values into the economic discourse. This sub discipline of economics has consolidated slowly as a bridging concept over the last centuries, but has "yet to be regarded as an especially important element in the great tapestry of modern political economy" (Throsby 2001, 12). As a goal, cultural economics "aims to maximize the welfare (in the widest sense) that

cultural resources can provide current and future society" (Burtenshaw 2014, 49) and sees cultural heritage as a capital asset. Throsby also noted that while this sub discipline is still relatively small, the recognition of culture within economics is gaining importance as is proven by governments and monetary institutions such as the World Bank declaring that culture is a crucial component of economic development (Throsby 2001). As a main argument, cultural economists follow the idea that the market does not set the value of heritage goods and as such other measurement mechanics need to be employed in order to produce valuable data for heritage management (Burtenshaw 2014). Examples of these methodologies are Contingent Valuation and Choice Modelling, where the value of a cultural resource comes from, for instance, people's willingness to pay for a certain heritage asset (for an overview of these methodologies, see (HM Treasury 2003) and a detailed consideration on this work by Dave O'Brian (2010); see also Fujiwara and Campbell 2011 as an answer to the lack of the more social methodologies observed in the former documents). A quite recently developed methodology does not postulate such an outcome as a final verdict; called Social Return on Investment, this methodology uses a stakeholder approach in order to establish an overview of attached values, which are then monetized and offset against the costs involved.[6] This creates an impact assessment which can be extrapolated to a cost-benefit ration as a final step. Whereas all the methodologies framed under the economic or cultural economics base their final value on monetary outcomes, other approaches valuate cultural heritage using more social or 'qualitative' characteristics. Coming from fields such as the social sciences and anthropology, proponents here use methodologies such as expert analysis, participatory mapping, and grounded theory (for an overview of these methodologies see Cultural Heritage Counts for Europe Consortium 2015). While outcomes of the analyses using the above-mentioned methodologies are more closely connected to 'soft' values, and are often attached to social and societal values, they lack the 'money' component, which makes them hard to use in the common language of decision-making, the major benefit of cultural economics and the reason for the wider use and understanding of the latter approach. In a sense, this is also true for the analysis of the impact of archaeology, as "economic (in the financial sense) impacts and benefits are often much easier to demonstrate than other social or cultural impacts and so economic impact data can 'swamp' other aspects of archaeology" (Burtenshaw 2014, 51).

Having discussed the differences between the economic and cultural approaches to determine the significance of a heritage site based on the various values attached, a final scheme will be presented here on which much of this thesis' further theoretical and methodological debate is based. While many other scholars have proposed typologies of the values which can be attributed to cultural heritage (for an overview, see Cultural Heritage Counts for Europe Consortium 2015, 56), the one proposed by Randall Mason (2002) is used here (see table 2.1), as his typology incorporates economic and sociocultural values as two distinct categories, each with their own unique aspects. As discussed, this value dichotomy is a fundamental pillar of the current research. Mason's typology was used to create the impact headers and indicators (see section 3) and delineates what is included (Socio-cultural values) and what is not (Economic values).

6 See http://www.socialvalueuk.org/resources/guide-to-sroi/

Economic values	Socio-Cultural values
Use values	Historical
Non-use values	Cultural/Symbolic
- Existence	Social
- Option	Spiritual/Religious
- Bequest	Aesthetic

Table 2.1: Typology of heritage values. Source: Mason 2002, 10.

While the above describes how significance assessment works in archaeological heritage management and how the different types of value are characterized and utilized by different proponents, it does not yet describe why these values are relevant for this thesis. This will be discussed in the next sub-sections.

2.1.3 Societal value of cultural heritage

Having described how significance assessment works on the basis of a variety of heritage values, and having decided upon the classification of- and the focus on socio-cultural values, this section will concentrate on the discussion of values in cultural heritage management. Based on international legal and policy documents, this section will discuss how cultural heritage is increasingly used to address societal issues such as social cohesion and quality of life. Running parallel to this development, we can observe a discourse shift in heritage policies and heritage management in which a people-centered approach takes the stage. Both aspects are heavily related to the use of values attributed to cultural heritage and form a case-in-point of how values are time-bound and subject to changes over time. The push towards these societal aspects from both vantage points shows the relevance and timeliness of this research.

2.1.3.1 Societal value of cultural heritage in cultural heritage management

Because of the democratization of heritage and the shift away from mainly conservation oriented values, for instance historical or aesthetic values, (object-oriented) towards economic and social values (subject-oriented), such as spiritual or educational values, the latter are increasingly emphasized in cultural heritage management guidelines and frameworks, as well as in practice. The main current interest in the value of heritage lies in the fact that it plays a growing role in today's society (Cultural Heritage Counts for Europe Consortium 2015; Blessi *et al.* 2014; Ander *et al.* 2013). Indeed, the importance of cultural heritage is widely recognized nowadays as serving an important societal role in the EU, as is evident from EU-wide recommendations to national and local applications of policies, treaties, and charters (Florjanowicz 2015).

A particular aspect of the importance archaeological heritage plays for society is that it is connected to the fact that for most of the European countries, archaeological research is conducted and paid for either by the free market, or central or local heritage authorities (Willems and Van den Dries 2007); a capitalist versus socialist model (Kristiansen 2009) – consequences of the Valletta Convention. While decades ago the relevance of science for science sake was enough to bolster huge amounts of funds, in contemporary society, and especially after the financial crisis which struck Europe around the year 2007/2008, there is a need for "Post-crisis systems for the management

of the archaeological resource [which] will need to be entrepreneurial, flexible, and responsive" (Aitchison 2009, 669). As a consequence of the scarcity of funds, "policy makers seek and the heritage sector argues for allocating funds to heritage by attributing socio-economic values to it and by measuring its socio-economic impact" (Cultural Heritage Counts for Europe 2015, 46).

Within the cultural heritage management sphere, this shift towards a more holistic valuation of cultural heritage can be discerned by analyzing (the history and succession of) various key publications, such as charters and treaties, as published by *e.g.* UNESCO and ICOMOS. We can observe a shifting perspective on cultural heritage values, moving away from the protection of material cultural heritage for the sake of its intrinsic and universal value towards a more holistic approach where intangible heritage is acknowledged as an aspect of heritage no less important than its more concrete counterpart, and social and natural aspects are included to argue for sustainable growth and a sustainable future. The focus on, and selection of, certain values above others is inherent to their use in a particular place and time; for instance, the 1954 UNESCO Convention on the Protection of Cultural Property during Armed Conflicts uses the word 'property' as a noun before the adjective 'cultural', and as such, denotes culture as an asset which can be owned and therefore contested; the convention emphasizes the physical notion of this 'cultural property' as:

> *Movable and immovable property of great importance to the cultural heritage of every people, such as monuments of architecture, art or history, whether religious or secular, archaeological sites; groups of buildings which, as a whole, are of historical or artistic interest; works of art; manuscripts, books and other objects of artistic, historic or archaeological interest; as well as scientific collections and important collections of books or archives or of reproductions of the property defined above.*
> UNESCO (1954)

While this convention aimed to protect cultural heritage from physical destruction, by describing the human relation to cultural heritage as 'property', it did not mention nor incorporate intangible aspects of cultural heritage. These intangible aspects are often the reason for heritage being under threat during armed conflicts, most prominently as a means to erase a group's identity (Bevan 2006), and they are focal points in the rehabilitation processes before, during, and after conflict (Boom 2013). While this convention aimed to protect cultural heritage from destruction during armed conflict, the 1964 ICOMOS 'Venice' charter instead focused on the physical conservation of heritage, built heritage in particular, and used the concept of 'monuments' to demarcate cultural heritage, stating that:

> *Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity.*
> ICOMOS (1964)

The Venice charter was centered on the importance of the physical object in order for people to appreciate the unity of human values. While there is certainly a unifying aspect to cultural heritage (Deiser 2010), framing the text this particular way neglects cultural context, historical background and the individual values attached to cultural heritage. As such, in 1992, the World Heritage Committee had recommended a reconsideration of the 'criteria governing authenticity and integrity, with a view to their possible revision', leading to an expert meeting on the subject in Nara, Japan (UNESCO 2007). The Nara document on authenticity was the result of that meeting and was "conceived in the spirit of the Charter of Venice, 1964, and builds on it and extends it in response to the expanding scope of cultural heritage" (ICOMOS 1994). It does this through recognizing the connection between cultural diversity and heritage diversity in relation to the conservation of heritage and its consequential appreciation as being authentic; both the concept and application of authenticity vary from culture to culture and as such can only be assessed fully and definitively when the underlying cultural context is taken into consideration. The aims of the Nara convention are geared towards this consideration and, effectively, the rethinking of authenticity in relation to cultural heritage. This can be discerned in the resulting document's preamble:

> *In a world that is increasingly subject to the forces of globalization and homogenization, and in a world in which the search for cultural identity is sometimes pursued through aggressive nationalism and the suppression of the cultures of minorities, the essential contribution made by the consideration of authenticity in conservation practice is to clarify and illuminate the collective memory of humanity.*
> ICOMOS (1994)

Here we see the recognition of the value of cultural heritage for society in relation to the changes of society as a whole, in particular due to globalization and homogenization. In contrast to the Venice charter, here the cultural identity of minority groups is stressed; the unity of human values is not a given, but comprises an intricate network of local, national and international values and identities. The document was incorporated into the Operational Guidelines of the World Heritage Convention in 2005 (UNESCO 2012) and as such now forms part of the "growing acknowledgement in the texts of the Convention of the importance of community involvement in heritage management" (Deacon and Smeets 2013, 131).

The acceptance of these premises resulted in the adoption of the UNESCO Convention's treaty on the Safeguarding of Intangible Cultural Heritage, where the safeguarding of intangible heritage is stressed together with the need to raise awareness at the local, national, and international levels (UNESCO 2003). Interestingly, the treaty's purpose also includes the line "to ensure respect for the tangible cultural heritage of the communities, groups and individuals concerned (UNESCO 2003)", effectively connecting the intangible with the tangible. The treaty not only had quite a significant normative impact, but also resulted in a change of the World Heritage Operational Guidelines, which initially recognized that authenticity should be judged on four attributes only: design, materials, workmanships, and setting. Now, however it "indicates that authenticity should be judged within the cultural context to which it belongs and that it could be expressed through a multitude of attributes" (UNESCO 2007, 41).

While this treaty, even more than the Nara document, focusses heavily on the importance of the role of communities in relation to the management and safeguarding of cultural heritage, in practice their involvement through control and responsibility of heritage projects remains insignificant (Deacon and Smeets 2013, 131, Van den Dries *et al.* 2015). The difference with regard to the importance and recognition of (local) communities between the 1972 World Heritage and the Intangible Heritage convention lies in the fact that heritage in the Intangible Heritage Convention is seen as a practice, rather than as a product, and the relationship between people and their heritage is the focal point; value here entails the value identified by communities concerned rather than external value judgement by experts (Deacon and Smeets 2013).

The more recent connection of cultural heritage to landscape and natural aspects of cultural heritage can be seen as the latest development in thinking about the societal role of cultural heritage and its connection to societal issues; effectively, this view combines a holistic approach with a people centered approach. The UNESCO Historic Urban Landscape Recommendation (2011), for instance, incorporates the historic urban landscape, defined as "the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of 'historic center' or 'ensemble' to include the broader urban context and its geographical setting" (UNESCO 2011), into the concept of cultural heritage. As a reason, it states that rapid and uncontrolled urbanization can result in social and spatial fragmentation which in turn affects the urban and surrounding rural areas. According to this recommendation:

> *Urban heritage, including its tangible and intangible components, constitutes a key resource in enhancing the liveability of urban areas, and fosters economic development and social cohesion in a changing global environment. As the future of humanity hinges on the effective planning and management of resources, conservation has become a strategy to achieve a balance between urban growth and quality of life on a sustainable basis.*
> UNESCO (2011)

While it is true that urban heritage inherently deals with local communities and societies, words like 'liveability', 'quality of life', and 'sustainable' are nonetheless concepts which contrast sharply with those introduced in earlier texts, and are seemingly more connected to contemporary society. Indeed, the landscape-based approach "has a holistic perspective which considers heritage, or the site, not as a goal in and of itself but as placed in social, economic, ecological, and cultural context [and] establishes a management approach which leaves room for assessing vulnerability to socio-economic pressure and impact of climate change and for integrating the outcomes into a wider framework of city development" (Cultural Heritage Counts for Europe Consortium 2015, 51).

2.1.3.2 Societal value of cultural heritage in EU policy

The previous sub-section of this chapter showed how within the cultural heritage management sphere a shift can be seen from an object-oriented approach to a subject-oriented approach, where economic and social values have gained importance. A similar shift can be seen in the international legal and policy documents on the use of

cultural and archaeological heritage. According to the Council of Europe, as written in the Convention on the Value of Cultural Heritage for Society (Faro Convention), cultural heritage comprises "a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge, and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time" (Council of Europe 2005). Heritage being the interaction between people throughout the course of history is more elegantly described by Davison (2008) as an inheritable testimony of ancestral relations. This connection between people and their past through cultural heritage is still strong today, but archaeology is also strongly connected to real or contemporary life, arguably more strongly than other forms of cultural heritage (Florjanowicz 2015). This results in issues such as land ownership, transport infrastructure, urban planning, and agriculture affecting archaeological research and putting it at risk (Florjanowicz 2015). In order to mitigate the effects of these issues, legal instruments and policy documents were put in place. A well-known instrument is the European Convention on the Protection of the Archaeological Heritage (Council of Europe 1992), which is "almost universally regarded as relevant to heritage management today [because] it has not only changed the face of heritage management across Europe during the past 20 years, but [will] undoubtedly continue to exercise a positive influence in safeguarding and conserving Europe's collective archaeological heritage "(Olivier and van Lindt 2014, 171). This convention, perhaps better known as the Valetta or Malta convention, focusses on the protection of archaeological heritage and its use for scientific research by securing professional standards in the archaeological field (Florjanowicz 2015).While the focus of the convention lies on the protection of archaeological heritage, it does this in order to "protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study" (Council of Europe 1992, art 1), acknowledging the intangible and societal value of archaeology. In addition, the convention refers to the dissemination of scientific information (article 7), pushing archaeological initiatives to share valuable knowledge and inform the general public of its undertakings and the need to raise public awareness, through for instance educational activities (Council of Europe 1992). In contrast, the later 2005 Faro Convention emphasizes the benefits of cultural heritage to individuals and communities and their responsibilities towards it. Furthermore, in its first article, the convention recognizes the right to participate in cultural life and the responsibility to promote cultural diversity (Council of Europe 2005). However, in order for these conventions to take effect in the EU, each nation state has to approve of its contents by ratification, and while the EU has to "respect its rich cultural and linguistic diversity, and shall ensure that Europe's cultural heritage is safeguarded and enhanced", according to the consolidated version of the Treaty of Lisbon, it can only act, or push legislation, within the limits of its competences (Florjanowicz 2015). This means that while the EU acknowledges and pushes the social and societal aspects of cultural heritage, it is still the prerogative of each country whether or not to incorporate those ideas into practice. For the two conventions mentioned above, we can see a large difference in ratification (Florjanowicz 2015, 27).

Other important developments related to the shift in values of cultural heritage in the context of European policy can be seen in two recent documents published by the

Council of the Europe Union. Both are *conclusion* documents, meaning that they are not legally binding for EU member states but are political statements by the council, facilitating co-operation and pushing ideas which may eventually result in law changes (Florjanowicz 2015). The first document is called the 'Council conclusions on cultural heritage as strategic resource for a sustainable Europe' (Council of the European Union 2014a). It can be considered as the EU's official reply to the Faro Convention, putting the goal of heritage values in the context of the main EU priorities: economic and social development (Florjanowicz 2015). The document "presents a holistic approach to cultural heritage and recognize it as a resource for enhancing the social capital in Europe" (Cultural Heritage Counts for Europe Consortium 2015, 52). The second document is called the 'Council conclusions on participatory governance of cultural heritage' (Council of the European Union 2014b). It recognizes that heritage is a shared resource, and "aims to reduce the risk of its misuse and at the same time to increase the social and economic benefits resulting from its exploitation" (Florjanowicz 2015, 29), but also that "participatory governance of cultural heritage offers opportunities to foster democratic participation, sustainability, and social cohesion and to face the social, political, and demographic challenges of today" (Council of the European Union 2014a). The European Commission acknowledges and underlines the importance of both the 2014 conclusion documents from the Council in their communication towards the Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions called 'Towards an integrated approach to cultural heritage in Europe' (European Commission 2014). The Commission states here that "Heritage has many dimensions: cultural, physical, digital, environmental, human, and social. Its value – both intrinsic and economic – is a function of these different dimensions and of the flow of associated services" (European Commission 2014, 3). However, there is a lack of data on these sociocultural and economic values and impact, which results in a lack of understanding of how to interpret, measure, and quantify these data (Crossick and Kaszynska 2016; Cultural Heritage Counts for Europe Consortium 2015; Burtenshaw 2014, 2013; Nevell 2013; Heritage Lottery Fund 2010; Labadi 2008; Selwood 2002). As a reaction to this, in order "to increase understanding of the actual and potential role of heritage in policy development, it is important to improve systematic data on its economic and social impacts" (European Commission 2014, 4). While only focusing on a selected few public activities, this research aims to provide fellow researchers and institutions with a solid set of research data on the sociocultural 'dimension' of archaeology and to increase our understanding of the impact archaeology generates in peoples' lives. As can be read in the previous statements, values and impact are often used interchangeably by scholars and institutions for the validation of archaeology. While value and impact are strongly connected, they are not strictly the same entities. The difference between the two and their place in this research will be discussed more thoroughly in the next section (2.2).

2.1.4 Value of participation in archaeology

A way to examine the sociocultural value of archaeology for local communities and society in order to create insight into the potential role of archaeology in EU policy and – hence- its future, can be found in analyzing public activities in archaeology. They form the perfect setting because they are already aimed to connect the public

to archaeological heritage and thereby encourage a certain kind of behavior which often creates a certain effect. Because of this, these public activities form a personal connection, based on a variety of values, between heritage and society, strengthened by the fact that they often provide space for social interaction (however, see the discussion in chapter six). Some even go as far as to say that indeed, "the community and heritage connection is one that is considered so natural an affinity that it hardly needs justification or explanation" (Crooke 2010, 17), whereas others stress that both concepts are widely misunderstood, often resulting in tension between community groups when unthoughtfully handled (Smith and Waterton 2010; Agbe-Davies 2010; Boom 2013). While the (legal) documents, conventions, and guidelines mentioned in sub-section 2.1.3 stress the importance of cultural heritage for answering social and societal issues from a top-down perspective, numerous research and community projects have been undertaken in the past few years dealing with these issues in practice. They form a bottom-up perspective, initiated by groups of volunteers, heritage collectives, or local municipalities, often housed under the 'public archaeology' or 'community archaeology' banner, which contribute to our understanding of the values attached to archaeology both by individuals and larger groups of individuals.

Based on contemporary discourse within the archaeological discipline, we can recognize and discern two forms of interaction between archaeology and people, which form the overarching concepts of the setting of this research; Public Archaeology and Community Archaeology. Public archaeology is broader than Community Archaeology because it focuses on the entirety of participation of non-professionals, or 'the public', in archaeology; it encompasses the place of archaeology in the contemporary world (Skeates *et al.* 2012). The participation of non-professionals is "deemed beneficial as it fosters respect for the value of the archaeological resource" (Moser *et al.* 2002, 222), a fact demonstrated by numerous scholars in contemporary archaeological research. Lewis, for instance, assesses the impact of public archaeology in relation to education (2014), whereas others focus on the capacity of archaeological education to contribute to skill and knowledge transfer (Henson 2012), critical thinking (Rubertone 2007), or healthy eating (Cole 2012). The societal value here is based on the fact that "much of the aspects mentioned under the term public archaeology are focused on learning through archaeology rather than about it", as Bartoy (2012) sharply observed. This also counts for aspects such as social involvement and pride – they are all effected through public activities in archaeology.

Whereas Public Archaeology is broader and more process oriented, Community Archaeology describes the intersection of (local) communities and archaeology and focusses on networks and relationships (Nevell 2013). Moser *et al.* define the concept of Community Archaeology as, "incorporating a range of strategies designed to facilitate the involvement of local people in the investigation and interpretation of the past" (2002, 220). Moser *et al.* recognize three developments as causes for the adoption of a community-oriented approach within the archaeological discipline: the "socio-political analysis of archaeological research, increased involvement of descendant groups in the creation of museum exhibitions, and political pressures placed upon researchers by communities directly affected by their findings" (2002, 222). Based on their Community Archaeology project in Quseir, they have developed a methodology for conducting community archaeology and have identified seven indispensable components to be

included in a community archaeology project: communication and collaboration; employment and training; public presentation; interviews and oral history; educational resources; photographic and video archive; and community-controlled merchandising (Moser *et al.* 2002, 229). They furthermore suggest that for every step in an archaeological project at least partial control should remain with the local community (Moser *et al.* 2002). This connects with the Democratic model Cornelius Holtorf proposed as one of three models of the relation between archaeology and society, the others being the Education model and the Public Relation model (Holtorf 2007). This Democratic model "emphasizes scientific responsibility and Sustainable Development and is based on participatory processes in which non-scientists predominate" (Holtorf 2007, 150). According to Holtorf, "in a democratic state, academic disciplines must answer to people's needs, address their desires and concerns, and be subjected to political control by non-scientists – even if citizens may occasionally decide against what the experts would deem to be in their best interest" (Holtorf 2007, 157). Holtorf's Democratic model and the notion of community control in relation to archaeological projects can be linked to rungs 6,7, and 8 of Arnstein's ladder of citizen participation (Arnstein 1969, figure 2.2); his other two models are more connected to rungs 3,4 and 5. Arnstein's ladder of citizen participation is well recognized within academia and is deemed the classic typology of public consultation and participation (Pendlebury and Townshend 1999). Based on this model, research was done by Pendlebury *et al.* (2004, but see also Pendlebury and Townshend 1999) in the United Kingdom, in which the higher rungs were connected to battling social exclusion in relation to built cultural heritage. From their study, it appears that Built Cultural Heritage can indeed be a force of social

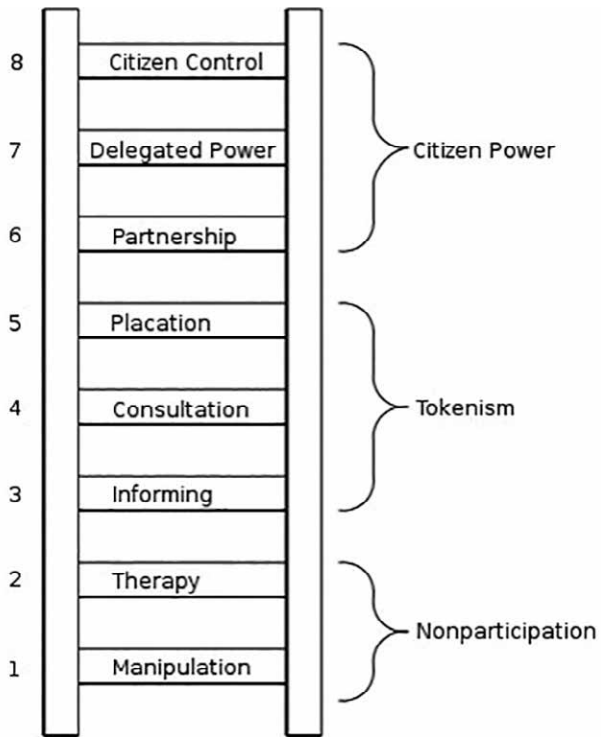

Figure 2.2: Ladder of citizen participation. After Arnstein 1969, source: https://lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html.

inclusion, but unfortunately the level of participation is not taken into account in the conclusions of their research (Pendlebury *et al.* 2004). However, in a study on community participation in an archaeological project in the United Kingdom by Michael Nevell with the aim to battle social exclusion and increase pride, it was concluded that higher levels of participation – or in other words, greater community control – result in a stronger impact (Nevell 2013).

While many projects and initiatives are undertaken under the term Community Archaeology, they sometimes do not incorporate or even consider the aspect of democratic participation. In the Netherlands, for example, community archaeology as Moser *et al.* propose it, "does not exist" (van den Dries 2014, 70). Reasons for this are the emphasis on in-situ preservation, governmental regulations to safeguard the archaeological record, and the pace and cost-restrictions due to the development-led principle (van den Dries 2014) – all restricting (partial) control of the local community. However, we do see a recognition of the societal interest in heritage and an increased democratization process (Duineveld and Kolen 2009), but the manifestations of these developments are still limited: only a handful of 'community digs' were undertaken in the last years, and none of them had anything to do with empowering local community members (van den Dries 2014). Community Archaeology in the Netherlands is much more focused on the other two models proposed by Holtorf – the Education and Public Relations model (van den Dries 2014). In contrast, numerous community archaeology projects are undertaken in countries like New Zealand, Australia and the United Kingdom (*e.g.* Marshall 2002; Thomas 2010) where active and democratic participation are stressed and valued. Some of the Community Archaeology projects undertaken in these countries are also analyzed for their impact to society (see for example Rosemberg *et al.* 2011; Applejuice Consultants 2008; Mills and Young 2009).

Having analysed the concept of both Public Archaeology and Community Archaeology, it can be concluded that they each incorporate aspects which are relevant for research on the sociocultural impact of public activities in archaeology. Whereas Public Archaeology includes concepts such as social involvement, pride, and health, Community Archaeology revolves (primarily) around community empowerment and social inclusion. All these concepts can be included in the 'sociocultural' denominator and focus of this research, as will be argued in the next section.

2.2 Sociocultural impact as a theoretical framework

2.2.1 Introduction

In this section, the concept of sociocultural impact will be discussed. Sociocultural impact, as a theoretical framework, is based on the concepts discussed in previous sections, such as the values attached to heritage and the concept of Public Archaeology, but here it is explained what impact means and how it is used as a theoretical tool within this research, forming the basis of the methodology explained in section 2.3.

First, this section will discuss the difference between value and impact – how impact is based upon values and why impact is used as a means to describe the effects of participating in public archaeological activities on its participants. After this, it will be discussed how the concept of sociocultural impact was developed for the heritage field,

as well as its relevance and applicability of for cultural heritage management. Lastly, the theoretical framework based on sociocultural impact which is used as a basis for the methodological framework will be explained, as it forms the theoretical backbone of this research.

2.2.2 Impact versus value

It is important at this point to make a distinction between value and impact, as the latter will be used from here on to describe the case study data. Perhaps it is best to start with a widely used definition for each concept. For value, we can use Mason's definition. He writes that values are "morals, principles, or other ideas that serve as guides to action (individual and collective); and second, in reference to the qualities and characteristics seen in things, in particular the positive characteristics (actual and potential)" (Mason 2002, 7). In contrast, impact can be understood as "those effects that go beyond the artefacts and the enactment of the event and have a continuing influence upon, and directly touch, people's lives" it is a "dynamic concept which pre-supposes a relationship of cause and effect. It can be measured through the evaluation of the outcomes of particular actions, be they an initiative, a set of initiatives forming a policy, or a set of policies which form a strategy" (Landry *et al.* 1993).

Within the cultural heritage field, and as such in archaeology, this means that value is what people attribute to a particular site or artefact, whereas impact is how that site or artefact affects people's lives. This means that values and impact are two sides of the same 'coin' (Bollo 2013), intricately connected and seen as processes, susceptible to change (Cultural Heritage Counts for Europe Consortium 2015, figure 1.1).

Perhaps more importantly, the two aspects of that same coin also interact and influence each other. For instance, when one person notices an increase in income because he, for instance, runs a café next to a World Heritage site – impact -, his values attributed to that site might (positively) increase and/or change. It works the other way around as well: when someone values a heritage site for its educational aspect, he or she might visit a museum, which in turn creates an economic impact (Cultural Heritage Counts for Europe Consortium 2015). However, Pendlebury and colleagues remind us that for cultural heritage, multiple steps need to be taken in order for it to generate impact, and that cultural heritage does not generate impact *per sé*, but must be considered as an "opportunity space in which regeneration occurs" (Pendlebury *et al.* 2004, 12). This is an important note, as it presupposes that heritage is used as a conduit to create impact, rather than that the subject of archaeology creates impact by itself. The case studies discussed in the next chapters all revolve around archaeology, but make different use of the theme depending on their goals, and as such, use archaeology both as a subject, and as a means. Because of this, the ideas of Pendlebury and colleagues. will be examined and validated based on the case study data and thoroughly discussed in chapter six.

Impact created by cultural heritage is not always positive. For economic impact, this can for instance be traffic congestion, the loss of economic value, or the misstating of the multiplier effect (Klamer and Zuidhof 1999). On a more societal level, developments in the cultural heritage sector can lead to gentrification (Mc Loughlin *et al.* 2006), and even social exclusion (Boom 2013; Murzyn 2006; Ashworth and Tunbridge 1999). Furthermore, it can be argued that not all effects are 'impact', as not all effects

have a 'continuing influence', or in other words a lasting effect.[7] However, it can be argued that we often do not know whether effects will turn into impacts, especially before conducting field research, and where exactly the distinction lies between the two. This argument is strengthened by scholars such as Alessandro Bollo, who writes that "impact represents a dynamic notion which presumes a relationship of cause and effect that can be assessed in the short term (much more easily) or in the long term (more difficult to prove)" (Bollo 2013, 15) and Carol Scott, who makes a distinction between intermediate outcomes and longer term impacts (Scott 2006). As a result, all 'effects' described in the case study chapters will be grouped under the term 'impact'.

2.2.3 Sociocultural impact in cultural heritage

> *Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl.* […] *Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials.*
> - Robert Kennedy, 1968

The heritage sector is facing a challenging time: the sector is not only increasingly being held accountable for the spending of public funds and the needs to justify financial allocation accordingly, at the same time there is growing pressure from local governments, international policy and funding institutions for cultural heritage to contribute to contemporary societal issues, such as unemployment, economic deprivation and health(care). This is in line with the evolution in public funding agreements in general, where demonstrating public expenditure has seen a shift away from economics into the realm of social policy, mostly to deal with rapid social change (Scott 2006). According to Chatterjee *et al.* (2009), the heritage sector can answer these issues by raising aspirations and by contributing to mental and general health care. Indeed, while answering these issues from a heritage perspective might seem challenging, in fact the shifting perspective in justification actually generates opportunities for the sector to show its impact on society, and thus its value. Luckily, as said, a similarly shifting focus from within the heritage field itself can be observed, enabling the field to not only address these challenges but to do so with the support of major national and international institutions.

Cultural heritage impacts four domains, which are in turn based on the various values attributed to heritage by society: culture, society, the environment, and the economy (Cultural Heritage Counts for Europe Consortium 2015). In its study on these impacts within the cultural heritage field, the Cultural Heritage counts for Europe

7 This was also mentioned during a course on the use of measuring Social Return on Investment (SROI) by Jeremy Nichols. According to him, the DOMunder case study (chapter 3) did not create real impact, but more of an effect, and as such it would be difficult to use SROI for measuring impact

Figure 2.3: Holistic four domain approach to the impact of cultural heritage. Source: Cultural Heritage Counts for Europe Consortium 2015, 17.

Consortium produced a vibrant scheme, showing these four domains and their overlap synergizing in Sustainable Development (figure 2.3).

The focus within this PhD research and thesis lies on the former two concepts; the archaeological lens with a focus on the social and cultural impact of archaeology. When we also use *participation* as a conductor to gather data, we arrive at the exact subject of this thesis. The reasons behind concentrating on social and cultural impact are threefold and both theoretical and practical in nature. Firstly, it suits and follows the contemporary shift in EU policy and governance to emphasize the subjective and more qualitative aspects of society in order to create a better understanding of its current and future functioning. It also follows the discourse change in the cultural heritage field and its goals to better study the societal values and impacts in order to validate public expenditure and show the value of cultural heritage. Secondly, this research takes place within the European NEARCH research programme, which aims to research New ways of Engaging audiences, Activating societal relations, and Renewing practic-

es in Cultural Heritage.[8] While these new ways do not necessarily exclude economic or environmental aspects, the focus within the project lies heavily on the interaction with and the involvement of (local) communities and on *new ways* of engaging with them. As a result, case studies within the project have a more societal and interactive nature; two of these are used within this research, the You(R) Archaeology case study (chapter 4) and the Invisible Monuments case study (chapter 5). Thirdly, by focusing on two of those domains connected closely to archaeology we start obtaining an insight into their synergetic workings and their contribution to our understanding of how to measure and analyze sociocultural impact and how to gather data. This last argument answers the call for more data to create a better understanding of (the workings of) sociocultural impact.

As mentioned, the focus on the social and cultural aspects within impact studies is a direct result of the growing pressure from governments to deal with rapidly changing social concerns, and their increasing expectations for the heritage field to acknowledge and collaborate to answer these. It appears that apart from its more economic use, cultural and archaeological heritage can be utilized as a 'sociocultural-tool' to address these social concerns, as studies show that cultural heritage can be utilized to enhance social inclusion (Pendlebury *et al.* 2004), community participation (Fujiwara 2014, van den Dries 2014, van den Dries *et al.* 2015), Quality of Life (Maeer *et al.* 2016; Clayton *et al.* 2014), and Well-being (Blessi *et al.* 2014; Fujiwara *et al.* 2014; Ander *et al.* 2013, 2011; Fujiwara 2013; New Economics Foundation 2009). Cultural heritage adds to the consolidation of someone's identity (Smith and Waterton 2009; McDowell 2008; Bevan 2006), and even aids in recovery and skill development of veteran soldiers who have been injured in conflict situations.[9] The significance of cultural heritage's social value, such as in the topics mentioned, can be studied, expressed, and proven by impact studies which can show advantages and disadvantages of a particular heritage site on those aspects in the past, and extrapolate for the future (McLoughlin *et al.* 2006, 18). Although social impact studies are geared towards showcasing a cultural heritage site's particular benefit for society, for instance in the increase of the Well-being of visitors, in reality value studies are often used to answer to government policies geared towards societal issues, as John Holden (2004) critically points out, and that merely showing data does not change this political system (2006). However, this does not mean that impact studies are useless for our field, nor that we should shy away from using them. On the contrary, the cultural heritage field, and the archaeological heritage field, should acknowledge and accept the fact that we now live in a contemporary society where values other than sheer science rule dominant, and even one in which values other than economic express the health of society. In effect, if we play the cards right, it can be argued that sociocultural impact studies can actually contribute to the heritage field in that they can validate for- and raise funds, while expressing the societal value of heritage at the same time. By engaging with and showing these values, we cannot fully cleanse ourselves of the fact that we (need to) play a numbers game, which might be deemed unethical. However, what better way to 'play' that game than by, for instance, not

8 See http://www.nearch.eu

9 See http://www.wessexarch.co.uk/OperationNightingale

only expressing economic revenue of an archaeological site but also showing that a person might feel better after a visit? The integration of economic and sociocultural values of heritage, expressed through impact studies, can shed light on sustainable growth and social cohesion. The difficulty lies in the fact that it is hard to express the more intangible benefits of cultural heritage, whereas the costs of maintenance are far easier to discern (McLoughlin *et al.* 2006, 43). Even more difficult is the comparison and calculation of tangible and intangible benefits of cultural heritage; methodologies behind cost-benefit analyses mainly focus on the economic aspect but in general fail to incorporate the less tangible benefits into their calculation, or vice versa (Burtenshaw 2014).

While researchers and institutions are now working on 'bridging the gap' between the economic and sociocultural values in order to show the true value of culture, according to Allesandro Bollo, in his work on impact studies in the museum world, it was only in the mid-80's that 'a real interest for the impact of the cultural and artistic sector led to a season of studies and research aimed at collecting significant empiric evidence' (Bollo 2013, 9). In this time the new right thinking of the United Kingdom and United States of America stimulated research on efficiency, accountability and, in general, the way public money was spent, primarily by stressing the economic impact; for museums specifically, conventional economic measures where emphasized, such as employment, sales and spillover effects (Bollo 2013). By the mid-90's it was acknowledged that economic impact studies alone where not enough to indicate the total impact of arts and culture for society and many authors contributed to the study of the social impacts of the arts (Bollo 2013). Of importance here is the study of François Matarasso called *Use or Ornament? The social impact of participation in the arts*, according to Bollo 'the first large-scale attempt in the United Kingdom to gather evidence of the social impacts stemming from engagement in arts' (Bollo 2013, 9). Matarasso's work is considered a key publication, as it created a methodological framework in order to justify public and private investment into cultural projects (Labadi 2008) and is still cited in studies today (Crossick and Kaszynska 2016; Cultural Heritage Counts for Europe Consortium 2015; Taylor *et al.* 2015). While criticized for its lack of internal and external validity, mainly because of the use of the small number of questionnaires (Merli 2002), Matarasso's study is of relevance for this thesis because it deals with much of the same issues faced in the archaeological heritage field, and can be connected and framed under the Socio-cultural valuation typology of Randall Mason. For instance, it showed that the arts can contribute to social policy objectives (Reeves 2002), just as archaeological heritage management is expected to today. Furthermore, the study established a useful methodological framework for social impact assessment in the arts and museum world (Bollo 2013), which can be used as a starting point and base for this research. In his work '*Use or Ornament? The social impact of participation in the arts*', Matarasso used Generic Social Learning outcomes to create an indicator bank for the art- and museum world in the United Kingdom. This indicator bank consists of a list of 50 social impact indicators, based under 6 different so-called headings (Matarasso 1997, table 2.2): Personal development, Social cohesion, Community empowerment and self-determination, Local image and identity, Imagination and vision, and Health and well-being. The applicability of Matarasso's list for cultural heritage management is argued by the Cultural Heritage Counts for Europe consortium, as they state that

Personal development	Social cohesion	Community empowerment & self-determination	Local image & identity	Imagination & vision	Health & well-being
Increase people's confidence & sense of self worth	Reduce isolation by helping people to make friends	Build community organisational capacity	Develop pride in local traditions & cultures	Help people develop their creativity	Have a positive impact on how people feel
Extend involvement in social activity	Develop community networks & sociability	Encourage local self-reliance & project management	Help people feel a sense of belonging & involvement	Erode the distinction between consumer & creator	Be an effective means of health education
Give people influence over how they are seen by others	Promote tolerance and contribute to conflict resolution	Help people extend control over their own lives	Create community traditions in new towns or neighbourhoods	Allow people to explore their values, meanings & dreams	Contribute to a more relaxed atmosphere in health centres
Stimulate interest & confidence in the arts	Provide a forum for intercultural understanding & friendship	Be a means of gaining insight into political & social ideas	Involve residents in environmental improvements	Enrich the practice of professionals in the public & volunteer sectors	Help improve the quality of life of people with poor health
Provide a forum to explore personal rights & responsibilities	Help validate the contribution of a whole community	Facilitate effective public consultation & participation	Provide reasons for people to develop community activities	Transform the responsiveness of public service organisations	Provide a unique & deep source of enjoyment
Contribute to the educational development of children	Promote intercultural contact & co-operation	Help involve local people in the regeneration process	Improve perceptions of marginalised groups	Encourage people to accept risk positively	
Encourage adults to take up education & training opportunities	Develop contact between the generations	Facilitate the development of partnership	Help transform the image of public bodies	Help community groups raise their vision beyond the immediate	
Help build new skills & work experience	Help offenders and victims address issues of crime	Build support for community projects	Make people feel better about where they live	Challenge conventional service delivery	
Contribute to people's employability	Provide a route to rehabilitation & integration of offenders	Strengthen community co-operation & networking		Raise expectations about what is possible and desirable	

Table 2.2: Socio-cultural headings. After Matarasso 1997.

"Although it does concern a wide array of arts, it could also apply equally to heritage" (2015, 77). The arguments made above argue for Matarasso's framework of impact headers and indicators implementation as a base for sociocultural impact analysis in this thesis. Because Matarasso's original list is focused on the arts within the cultural sector, this means that for using it as a base in archaeological activities some translations need to be made. In fact, this framework needs to be adapted for each specific situation, as the indicators should be connected to the goals of a specific institution or activity (Bollo 2013) and there is no template that can be consistently used with confidence across a number of situations (Reeves 2002). The next sub-section will explain how this translation is done for the included case studies.

Social impact is divided into societal and individual impact (for an overview of studies focusing on the differences between these two aspects, see Bollo 2013, 11), and their use can be intrinsic and/or instrumental. An overview of the various social indicators stretched along those four points on two axes – including their overlap – is included here as a reference (figure 2.4). While this map gives a general overview of

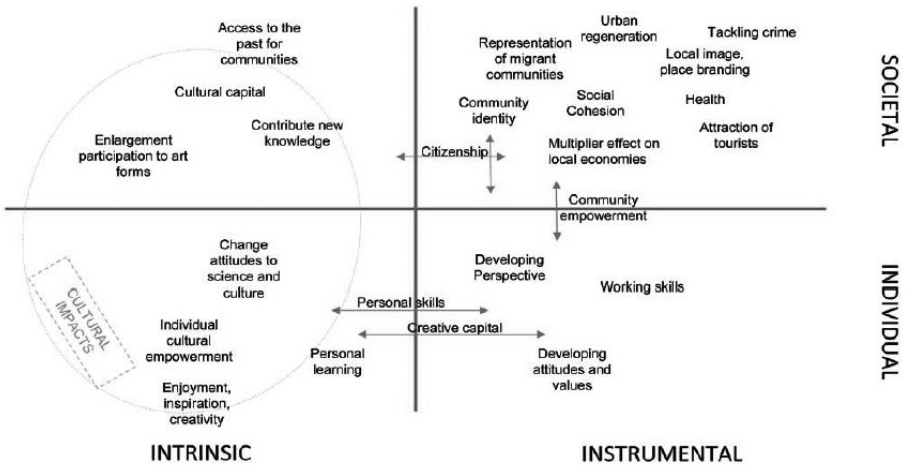

Figure 2.4: Social impacts map. Source: Bollo 2013, 22.

the four aspects and the underlying indicators, the author of this map acknowledges that some of the indicators can shift from instrumental to intrinsic (or vise-versa) as the indicators are not set, but bound to the goals of a museum, and its mission and identity (Bollo 2013).

Next to social impact exists the concept of cultural impact. According to Bollo, who has incorporated this concept into his map of social impacts (circle, figure 2.4), cultural impact is "a particular area of impacts specifically related to the essence, the mission and vision of the museum and to its core activities" (Bollo 2013, 11). This means that while social impacts are more related to society or the individual and are more generic (although their intrinsic or instrumental use can shift), cultural impacts are specific to each activity or institution. According to Michelle Reeves, cultural impact manifests itself by people making sense of the world and its surroundings, which is realized through knowledge transfer (Reeves 2002). This can be related to what Randal Mason writes about sociocultural values (of which impact is the effect), which are at the "traditional core of conservation–values attached to an object, building, or place because it holds meaning for people or social groups due to its age, beauty, artistry, or association with a significant person or event, or (otherwise) contributes to processes of cultural affiliation" (Mason 2002, 15). While social and cultural impacts are generated on different levels, this does not mean that they are not closely related. They can even overlap, as we can see for education, which can be either social, cultural, or a mix of both depending on how it is deployed and by whom (Cultural Heritage Counts for Europe Consortium 2015). Acknowledging this, for the sake of clarity and conciseness, when talking about the totality of research aspects within each case study in this research, *sociocultural* impact will be the to-go term, and where applicable and relevant, a distinction between the two aspects will be made.

Sociocultural impact is an interesting subject to analyze and research within archaeological heritage because it can give us an insight into how archaeology can impact people's lives (academic reason) and cultural institutions such as museums, archaeological centers, and art galleries can adapt their consumer strategies accordingly if they so

desire (economic reason). There is, however, another reason why sociocultural impact is relevant to study in contemporary society and that is because it can be connected to broader societal issues, increasingly emphasized by local and international governments; its responsibilities to answer shared or sometimes implied with the cultural and archaeological heritage field. As said before, this rather 'top-down' expectation is not necessarily a bad thing. Heritage's contribution to societies' health and Well-being in particular provides opportunities which some scholars and studies, including the author of this thesis, seek to consolidate.

2.3 Sociocultural impact as a methodological framework

2.3.1 Introduction

For this research, the focus lies on getting to grips with the impact cultural heritage generates and to do so, this sub-section will describe how the theoretical footing discussed previously, leads to and connects with the methodological framework. It was decided that creating a cumulative and commensurable dataset, based on Matarasso's list, would be more beneficial for this thesis than the alternative – a dataset comprising three different and incomparable case studies, which would then focus more on different aspects, methodologies, or reasons behind doing sociocultural effect analysis. While this alternative approach might seem interesting and relevant, its disadvantage would be that data gathered would not be substantial enough to cover and validate separate methodologies and as such only indicate certain aspects without supporting them on a quantifiable basis. By creating a commensurable dataset this disadvantage is overcome and the focus on one particular methodology will strengthen the final conclusions. As such, online and face-to-face surveys are used as method*;* argumentation for this decision can be found in sub-section 1. It should be noted that the generation of impact onto a person visiting an archaeological site or activity is not a given; "steps need to be taken in order to trigger the impact potential of cultural heritage" (Cultural Heritage Counts for Europe Consortium 2015, 53); Cultural heritage must be considered an opportunity space in which impact *may* occur (Pendleburty *et al.* 2014). Those 'steps' taken are often executed in the form of goals, set by the initiator of the event to generate a certain outcome. How these goals are used for the creation of indicators and, ultimately, questions for the online and face-to-face surveys, is elaborated on in sub-section 2. Sub-section 3 discusses how data derived from these surveys are analyzed and interpreted.

2.3.2 Online and face-to-face surveys

Most of the approaches within cultural heritage impact assessment use a combination of methodologies in order to gather both quantitative and qualitative data (Bollo 2013). There is a difference in approach in that some researchers use a set methodology with 'hard' indicators, such as Social Return on Investment or Cost-Benefit-Analysis, whereas others use a methodology where outcome areas are identified, against which the potential impacts of a project are assessed – using a combination of soft and hard indicators (Bollo 2013). The tools of the trade which are most used are, amongst others, questionnaires, panels, case studies, ethnography, focus groups – prior to a stakeholder

analysis (Bollo 2013, 22). For this research, online and face-to-face surveys were chosen as methodology. Online surveys have a multitude of advantages, most importantly greater speed and lower cost (Duffy *et al.* 2005), but other advantages noted are that online surveys allow research that is more visual, flexible, and interactive (Taylor 2000), avoid interviewer effects by, for example, providing anonymity (Duffy *et al.* 2005), and online research connects better with the increasing individualism and selectiveness of potential respondents (Duffy *et al.* 2005). Three major issues, relating to coverage bias or selection error, are recognized for online surveys; 1) they reach only those people who are online, 2) they reach only those who agreed to become part of the panel and 3) not all of those who are invited actually respond (Duffy *et al.* 2005). Because of this, the issue of under-coverage of the elderly and lower educated is noted, together with the issue of non-response (De Leeuw 2012). Some of those issues can also be linked to face-to-face surveys, for example the fact that only those people are reached who are home during a particular time of the day. However, respondents in face-to face are less inclined to answer 'don't know' or 'neither/not sure' (Duffy *et al.* 2005). Furthermore, online survey respondents are found to be more politically active, more likely to be early adopters, and tend to travel more than face-to-face survey respondents (Baker *et al.* 2003). While both approaches have their pros and cons, the reason for using both are based on the type of research audience. The DOMunder case study has three types of audiences; 1) visitors, who are most easily reached via an online survey as e-mail addresses were available, 2) residents living close by, who are most easily reached via a face-to-face survey as no e-mail addresses were available, and 3) volunteers, who are most easily reached via an online survey because those e-mail addresses were available as well. The You(R) Archaeology case study only has one target group; those who participated in the contest. They are most easily reached via an online survey as they left behind e-mail addresses and by submitting to the contest they automatically agreed to be available for contact and research purposes. Finally, the Invisible Monuments case study also has one target group; those who participated in the event. Participants of this event had to use a mobile application in order to access information, and by doing so they provided their e-mail addresses to be used for contact and research purposes, too. Hence; an online survey was the most applicable approach. Furthermore, the target group of the You(R) Archaeology contest was divided over various countries in the EU and as such a face-to-face survey was not possible.

2.3.3 From goals to indicators to survey questions

Now that online and face-to-face surveys have been established as methodology, the next step is to determine the material to study. As a general guideline for impact assessment, Bollo (2013) proposes the following scheme on which the methodological approach of this research is based;

1. Defining goals, outcomes, and targets;
2. Identifying indicators;
3. Developing and executing a methodology for collecting data;
4. Interpreting;
5. Improving planning and evaluation.

2.3.3.1 Defining goals

The first step is the definition of the goals because, as mentioned before, impact should be measured against the aims and goals of an activity or institution; the focus should lie on the outcomes of an activity (such as a change in people's attitudes) rather than on the outputs that make up an activity (such as the number of visitors) (Bollo 2013). There are three case studies included in this research; the DOMunder case study (chapter 3), the You(R) Archaeology case study (chapter 4), and the Invisible Monuments case study (chapter 5); for each a difference is made between *research* goals and *activity* goals. The former is based on the overall research goal of this thesis, which is to create a commensurable dataset in order analyze and understand the sociocultural impact of public activities in archaeology – and is thus connected to this research. While every case study shares this overarching *research* goal, each case study has specific research goals as well, for instance to better understand the interaction between a certain audience and the activity. The latter, the activity goals, are goals set by the initiators of the case study activities; for DOMunder, this is Foundation Domplein 2013, for the You(R) Archaeology case study this is the Instituti per i beni artistici culturali e naturali (IBC), and for the Invisible Monuments case study this is the Aristotle University. These activity goals define, for instance, a certain audience, project outcomes, or expected results of the activity.

2.3.3.2 Identifying indicators and developing and executing a methodology for collecting data

Both sets of goals are combined in order to create a list of indicators. Combining these goals into one group of indicators mean that this one overarching group of indicators serves two purposes; measuring sociocultural impact, which is more connected to indicators translated from the activity goals and understanding how sociocultural impact works in the unique case study settings – indicators derived from the research goals. The reason for merging these two sets of goals into one group of indicators is to streamline the methodological approach and work towards a single questionnaire (see later) in which no difference in objectives is observable for the respondent.

The *activity* and research goals are translated into applicable indicators on the basis of the previously discussed framework of sociocultural impact created by François Matarasso (1997). This theoretical framework translates, via a 5-tier process, the broader, theoretical first tier, step by step, into case specific survey questions (figure 1.2). This process and structure is based on the North East Regional Museums Hub Tool.[10] Tier 1 divides the framework into 6 headings; local image and identity, community empowerment and self-determination, imagination and vision, health and Well-being, personal development, and social cohesion. Tier 2 specifies Matarasso's list of 50 social impact indicators, or actions, for each of these 6 headings – for instance 'develop pride' for the local image and identity header and 'Develop community networks and sociability' for the social cohesion header. Tier 3 translates these actions into case specific actions, which are based on activity goals. Tier 4 translates these into relevant indicators, but also adds indicators based on research goals and comparable studies on sociocultural impact (Rosemberg *et al.* 2011;

10 http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources

Applejuice Consultants 2008; Mills and Young 2009). Tier 5, finally, translates the relevant sociocultural indicators from tier 4 into (possible) survey questions.

The questionnaires included open and closed questions and had, as such, a qualitative and quantitative focus, respectively. The former allowed for survey participants to answer freely without restrictions, enabling them to express their unconstrained opinion and add comments, and were included to find the range of answers possible or to provide qualitative comments for quantitative questions. In the You(R) Archaeology case study (chapter 4), for example, survey participants had to score whether or not the contest increased their knowledge about archaeology. To get more insight into this matter, people were then asked why this increase happened, via an open question. This resulted in some unique answers which would not have been included where the question a closed one. Being qualitative data, these answers would not only provide insight into each individual's respective impact analysis, but would, cumulatively, also serve as a valuable supplement to the case study in total, adding to the inclusiveness and robustness of the research. Closed questions were used for demographic details, such as 'male' versus 'female', and for questions which only had a select number of relevant answers. Answers based on a 5-point Likert-scale were also included as closed questions. A Likert-scale is a very common tool in sociological studies and surveys in which a participant is asked to indicate their opinion on a graded scale, for example with options ranging from Strongly disagree and Strongly agree with several intermediate options (Likert 1932). The decision to use a 5-point Likert scale was largely based on comparable studies which also included 5-point Likert scales, which meant that using this scale greatly increased comparability. Furthermore, differences in results between 5 and 7-point Likert scales, arguably the most used scales, are still debated (Dawes 2012). There were 2 types of Likert-scales included in the questionnaires. The first ranged from 'Strongly disagree' to 'Strongly agree' and were used in 'statement'-like questions, such as 'Participating in this contest increased your level of education'. The second ranged from 'Not at all', to 'Extremely', with 'Slightly', 'Somewhat' and 'Moderately' in between and was used in more 'question'-like questions, for instance 'Did you like participating in this activity?'.

After consulting with the initiators of the activities, a draft version of the survey was created. For online surveys, SurveyMonkey[11] and Qualtrics[12] were used, and for the face-to-face survey for the resident target group of the DOMunder case study, the questionnaire was printed to paper. After approval by the activity organizers, these questionnaires were finalized and the surveys were launched (see the specific case study methodology sections for further details).

2.3.4 Analysis and interpretation of the results

The various surveys of the three case studies provided different, yet comparable, sets of data. This was due to the fact that each case studies had different *research* and activity goals, necessitating the use of different indicators and questions. However, when applicable and useful, the same questions were included for multiple surveys in order to optimise comparability.

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11 http://www.surveymonkey.com

12 http://www.qualtrics.com

Analysis was largely based on quantitative data, obtained via the surveys. When applicable, qualitative answers were analysed for contents in order to annotate and help interpret quantitative data. The quantitative data were processed in order to create analysable datasets through the creation of weighted averages, visualisation in bar charts, and statistical tests. Weighted averages (weighted arithmetic means) were used to help avoid the skewing of data, but also to compensate for non-response and post-stratification (Lavrakas 2008). Visualisations for both the raw data and weighted averages were made in Excel (version 2016/v16.0), both for illustration and to aid in analysis and interpretation. Statistical tests were used as an extra assessment of the data when bar-charts showed striking patterns which stimulated further analysis. The data were tested statistically to assess differences in impact in various age and gender groups, and the differences and/or correlations in scores between different questions. Data from the surveys were all ordinal, except for gender which is nominal. Kolmogorov-Smirnoff tests were used to evaluate whether the data were distributed normally, *i.e.* whether any outliers were severely distorting the data. Wilcoxon signed rank tests were used to compare answer patterns of different questions to each other. Spearman's Rho tests were used to evaluate correlations between the answers to two questions given by participants (for instance, whether people who felt an impact in learning about archaeology were also more confident to talk about it). Mann-Whitney U tests were used to analyse the relationship between gender and survey question answers. Kruskal-Wallis H tests were used to assess correlation with age while avoiding skewing by outliers. All statistical tests were performed using IBM SPSS 23 (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, version 23.0. Armonk, NY: IBM Corp). Statistical significance is set at $p \leq 0.05$. All statistical tests are reported with statistical factor, p-value and n-value.

Interpretation and discussion of the data was done through in-depth analysis, comparison, and contextualization with the available comparable datasets set in the cultural heritage or archaeological context. An additional source of information for the discussion of the data was feedback given by the initiators of the activity of the three case studies who had unique knowledge of the specific sociocultural contexts in which they operate.

This methodological chapter delineated how specific methodological choices were made and approaches were combined to create a dataset which can be optimally compared both within the current study and with other studies in the cultural heritage and archaeological field.

3

Case study: DOMunder

3.1 Introduction

DOMunder is one of the newest and most inventive public archaeological attractions in the Netherlands, successfully handling over 40.000 visitors a year and set in the middle of one of the largest cities in the Netherlands: Utrecht. Based on (and under) the famous Domplein Square, the attraction provides a compelling platform for visitors, local residents, and volunteers working at DOMunder to meet and interact, each bringing their own sociocultural values. The convergence of values of these different stakeholders at DOMunder provides a perfect stage for research into sociocultural impact. Therefore, it forms one of the major case included in this manuscript. While DOMunder is not part of the NEARCH project, its unique approach to attracting visitors as well as its use of volunteers provides a valuable addition to the *You(R) Archaeology* and *Invisible Monuments* NEARCH case studies, discussed in chapter 4 and chapter 5 respectively.

The contents of this and the following two case studies are based on two sets of goals: research goals (discussed in section 1), which are set by the author of this thesis in order to guide, steer, and focus the research topics to be analysed and discussed for each specific case study, and activity goals (discussed in section 2), which are set by the initiators of the activities in order to manage their outcomes and deliverables.

The research goals for this case study will be considered and discussed in section 3.2. Then, contextual information about the DOMunder activity is provided in section 3.3. In section 3.4, the methodological approach to the three surveys will be discussed, followed by an analysis of the results in section 3.5. In section 3.6, the conclusion, the impact we can identify from the analysed data of the DOMunder case study is considered. This dataset, however, forms but one out of three sets of data; a comparison between the three case studies will be made in chapter 6, followed by a discussion on the implications for the archaeological field.

3.2 Research goals for this case study

The case studies discussed in this thesis share one overarching *research goal*, but are additionally based around specific research sub-goals, as each case study is unique in its setting, method, and scope. The overarching *research goal* shared by all case studies

Figure 3.1: The city of Utrecht lies in the center of the Netherlands, connecting East and West. Copyright: Google, Google Maps.

comes from the aim to create a commensurable and comparable set of quantitative data, forming one dataset to be analysed and discussed in the final chapter of this thesis, thereby providing a solid foundation for discussion and interpretation.

The specific research sub-goals for the DOMunder case study are:

1. This case study is the first one being undertaken in this PhD trajectory, with fieldwork set for the summer of 2015. It is considered a pilot because of the novel methodological application, it allows to assess practical complications and create solutions for them, and it provides insight into 'do's and don'ts of this type of research which will benefit the efficiency and accuracy of the remainder of the current research as well as research by future scholars.
2. To allow insight into the difference in sociocultural impact of the DOMunder public archaeological attraction for three particular stakeholders: the visitors of the attraction, the residents living close by, and the volunteers working at DOMunder as tour guides.
3. To compare the data from the surveys taken of the three stakeholders and see if there are differences and/or similarities in sociocultural impact.

3.3 About DOMunder

3.3.1 History of the Domplein Square

DOMunder is located in Utrecht, the Netherlands. Ranking in 4th place on the list of the biggest cities in the Netherlands, and housing over 320.000 residents,[13] the city has a rich cultural and history, demonstrated by the numerous monuments, buildings, and museums. Because of its localisation in the center of the Netherlands (figure 3.1),

13 https://www.promovendum.nl/blog/grootste-steden-nederland-2014-top-10

Figure 3.2: Excavations at the Domplein Square through the ages. The picture on the left was taken in 1933, the one on the right in 2012. Copyright for the left photo: Initiatief Domplein 2013, for the right photo: Rijksdienst voor het Cultureel Erfgoed.

it is a critical junction connecting the hectic, urban, Western part of the Netherlands, the Randstad, with the overall more rural and generally much quieter Eastern part of the Netherlands. In 2014, Utrecht received 3.875 million day visits from local and national tourists and 600.000 from international tourists (Toerisme Utrecht 2016).

DOMunder is part of a bigger archaeological and historical context: the Domplein Square. Located in the middle of the historic center of Utrecht, this public square attracts thousands of visitors each month and forms the cultural heart of the city. The Domplein Square, came into being in 1674 when a tornado blew away the nave of the Dom cathedral which connected the tower with the rest of the structure. Much later, in 1826, the debris was cleared, leaving a large gap where the tower and the cathedral once connected. This gap formed the first stage of what is now known as the Domplein Square. Between 1826 and present day, several buildings were constructed around the square, including the famous Academy building for the University of Utrecht. However, the square is not only rich in historic buildings, it is also in this exact spot that the city of Utrecht was founded, and, as it is at the center of the city, it was the stage for many cultural and religious developments and events. The rich history of this location resulted in an equally rich archaeological assemblage.

In the 20th century, several archaeological excavations were undertaken at the Domplein Square (figure 3.2). These archaeological excavations were performed by the city archaeologists of Utrecht, one of whom is the famous Dutch archaeologist Van Giffen, who also uncovered the megalithic 'Hunebedden' in the eastern part of the Netherlands (Van Giffen 1925). The most recent scientific excavation on the Domplein Square was in 2008, but the latest excavation was performed in 2011 and 2012 as part of the creation of the DOMunder archaeological attraction (figure 3.2). The latter excavation was executed at the exact location which was excavated by van Giffen almost a hundred years ago so as to not disturb the remaining yet untouched archaeological strata, although some discoveries were still made, including the foundations of a monastery and a skeleton belonging to a vicar (Initiatief Domplein 2013 2014).

Currently, the Domplein Square is strategically marketed by the municipality of Utrecht as a cultural and touristic hotspot, hosting various visitor attractions (including DOMunder), events, cafés, and cultural institutions. The Dom Cathedral, open to the public and one of the major attractions on the square, is currently involved in studies

aimed to see whether the nave of the cathedral could and, more importantly, should be reconstructed. Furthermore, various parties have been asking for funds to revitalize the square, to make it less windy and dark. However, the municipality of Utrecht has hitherto withheld from investing substantial financial capital in the revitalization of the square; only small parts of it have been facelifted for touristic purposes.[14] A good example of this piecemeal facelifting was the hosting of the 'Grand départ', the first stage of the Tour the France in 2015. However, these small isolated investments are not sustainable, and long term solutions for the problems the square faces are yet to be found.

3.3.2 The creation of DOMunder

The rich archaeological history of the Domplein Square was the reason for the creation of the DOMunder archaeological attraction, a place where visitors can literally descend into the (archaeological) history of Utrecht. Theo van Wijk and Paul Baltus, the two promotors of this creative idea, established the 'Foundation Domplein 2013'[15] in 2005 to create a legal and professional foundation (Initiatief Domplein 2013 2014). Part of this foundation is 'Initiative Domplein'[16], a private initiative aiming to showcase and make publicly accessible 2000 years of Domplein history.[17]

As one of the initial step in the creation of the DOMunder attraction, the Schatkamer Domplein (Treasure Room Domplein Square) was opened in 2010 in an already existing building on the Domplein Square. The room is still used as part of the DOMunder attraction today, and houses several archaeological artefacts, displays, and a video about the history of the square, focusing on the Roman Castellum (Initiatief Domplein 2013 2014). The next phase of the project opened after the excavation and construction were completed, on June 2nd, 2014. Located directly under the Domplein Square, this area of the DOMunder attraction is accessed by descending via a set of steel stairs, making it a unique visitor experience. Together, the two locations form the DOMunder archaeological attraction. The attraction not only features remains of the Roman castellum, but also of several churches, including the large groundwork pillars of the Dom Cathedral and the first Utrecht waterworks, installed as an answer to the cholera epidemic in 1876 (Initiatief Domplein 2013 2014).

The aim of Theo van Wijk and Paul Baltus was to create a 'real visitor experience', instead of simply showing the archaeological remains to explain Utrecht's history in a top-down fashion. The feeling of an experience is strengthened by the fact that the attraction is located under the actual Domplein Square and is quite dark (but subtly lit), which strongly contributes to the adventurous atmosphere. Furthermore, during the tour, people can use a pistol-like lamp with a laser and earphones attached to scan for hidden sensors. When one scans these sensors by aiming the pistol and 'firing', one hears voice artist Hugo Metsers Jr, impersonating Herre Wynia, the municipal archaeologist who was responsible for the DOMunder excavation in 2011 and 2012, explain that particular object or set of objects through their headphones. This approach still leads to top-down communication, but visitors have to actively search for snippets

14 http://www.ad.nl/ad/nl/1039/Utrecht/article/detail/4032352/2015/05/19/Stad-heeft-geen-geld-voor-facelift-Domplein.dhtml
15 Stichting Domplein 2013
16 Initiatief Domplein
17 http://www.initiatiefdomplein.nl/organisatie.html

of information, and tour guides are available for questions throughout the tour. In this sense, visitors are 'activated' during the tour, but whether they also feel they are actively being involved during the tour is discussed in section 2 of this chapter.

3.4 The surveys

3.4.1 Introduction

This section describes the three surveys which were conducted in the summer of 2015 with three specific DOMunder stakeholders: the visitors, residents living close by and volunteers working at DOMunder as tour guides.

An online survey forms a relatively easy, fast, and generally accepted approach to getting to know a certain public's opinion (De Leeuw 2012). It generates statistical data which can be used in multiple ways depending on research aims and the scope of the research project. Furthermore, as much of sociocultural impact research is based on the use of (online) surveys, using this approach facilitates inter-study comparisons. As there is as yet little data on sociocultural impact for the archaeological field, using a methodology which is compatible with research into sociocultural impact in other fields ensures that the current research can be placed in the broader framework. Specific surveys were developed for the three stakeholder-groups. Each of these surveys had its own focus regarding subjects and themes discussed, however, some questions and answers were included in all surveys. These mostly related to demographic data, but some questions covered certain impact themes which could be included because of similar *activity* and/or research goals. This created an opportunity to cross-check certain interesting data at a later stage, both between the three DOMunder stakeholders, as well as with the data from the You(R) Archaeology and Invisible Monuments case studies. The former comparison is done within this chapter (in section 4, specifically), the latter is done in chapter 6.

The DOMunder case study is the first case study discussed in this dissertation, and also the first one to be conducted in the research process. With numbers reaching over 40.000, the visitors of DOMunder, one of three stakeholders to be surveyed and the first one discussed here, provide a large set of data, generating valuable insight into their personal experiences.[18] This survey aimed to assess the sociocultural impact of the attraction on visitors after their visit. The second survey – the resident survey – is different from the visitor survey in terms of focus and methodology; this target group attaches other values to the attraction, so a survey was prepared with questions which related more to the location and public role of DOMunder. In this regard, this target group provides a valuable insight different from most other 'visitor' or 'market' studies performed by museums or heritage institutions, which often focus only on visitor numbers, demographics, and revenue (see for instance Cultural Heritage Counts for Europe Consortium 2015; Scott 2009). The volunteers form the third stakeholder. Just like the residents, they have their own values and ideas, and are impacted upon by DOMunder in specific ways. Questions asked in the volunteer survey were focused on their working environment, skill development, and future employment goals.

18 See: http://archeologieinnederland.nl/node/558

Together, these three stakeholder groups provide a solid surveying pool, but from a practical perspective surveying these groups also meant that a large number of people had to be reached and surveyed. In order to facilitate this operation, SurveyMonkey, an online survey tool, was used for the visitor and volunteer surveys.[19] A face-to-face survey was used for the resident stakeholder group, mainly because there were no e-mail addresses available for sending invites, but also because a paper survey makes it easier to write down spontaneous notes and suggestions.

The activity goals for both the Domplein Square and DOMunder, discussed in more detail in the next sub-section, provide a foundation for the creation of a framework on which the surveys are based. However, in order to be operable, these goals need to be distilled into survey questions first. This translation was done through the creation of an intermediate set of measurable indicators, connecting abstract aims with survey questions. For each survey, a unique set of indicators was created, based both on the goals set by the aforementioned organisations, and on literature and desk research suggesting specific indicators and methodologies.

3.4.2 Methodology

3.4.2.1 Visitor survey

This survey aimed to get an insight into the sociocultural impact of the DOMunder activity on visitors, after their visit, and is based on both *research* as well as activity goals. The former has already been discussed above, the latter will be discussed for each stakeholder in this paragraph.

Sociocultural impact measurements should be performed based on the aims set for a specific activity (Bollo 2013), in this case the aims set by the Foundation Domplein 2013 for both the general marketing of the Domplein Square as well as for DOMunder. Both goals can be combined because of the positioning of DOMunder as a cultural, historical and archaeological activity which is closely connected to the overall positioning and branding of the Domplein Square. While both entities host their own activities, they share the same location and much of the same target audience.

Before creating the survey, the attraction was visited in order to appreciate the setting and context of the activity and the possible visitors' experiences. This helped in gaining an overall feeling for the scope of the activity. Additionally, the marketer of DOMunder assisted by clarifying the goals, creation process, and limitations of the activity. Furthermore, the 'official' DOMunder activity goals, presented in two internal papers; the *Positioning Strategy Paper* (Rennen 2013) and in the S*econd Opinion* document concerning possible visitor numbers, written by the advisory- and consulting company LAgroup (LAgroup 2011) were also used in the creation of the survey. Lastly, the information from internal documents covering target groups, values, and strategic positioning of the Domplein Square; the *Development Vision* document, by Initiative Domplein (Initiatief Domplein 2013 2008) and the *Program of Essences* document, also written by Initiative Domplein (Initiatief Domplein 2013 2010) were analysed.

In the DOMunder *Positioning Strategy Paper*, two distinct goals are presented (Rennen 2013, 3):

19 SurveyMonkey: http://www.surveymonkey.com

1. *Goal with a small scope:*
   To present DOMunder, in cohesion with the Domplein square, to the audience. To increase visitor numbers, DOMunder will be presented and positioned as a real 'visitor experience'.
2. *Goal with a large scope:*
   This goal, which is also the goal of Initiatief Domplein, is to make visible the historical layers of the square while also position it as a monumental and cultural 'oldspot'.

Throughout this document two other 'unofficial' goals can be distilled:
1. *To create a unique archaeological experience;*
2. *To position DOMunder as a sustainable project.*

Furthermore, a chapter of this strategy paper is dedicated to the positioning of DOMunder (Rennen 2013, 13). Here, several particular nouns and adjectives can be recognized by performing a dictionary tagging on the visitor perceptions DOMunder aims to evoke:

- informative – vivacious – collective experience moments – individual learning moments – exciting – inspiring – tangible – fascinating – personal – curious – wonder – layers – hidden – archaeology in action – living history – imaginative – livable – tactile – on site.

DOMunder is part of the positioning of the Domplein Square. While the attraction forms a distinctive cultural and archaeological activity on the Domplein Square, striving for distinctive visitor perceptions and opinions, it also incorporates possible Domplein Square visitor impressions. The nouns and adjectives listed below are distilled using dictionary tagging in documents covering the positioning of the Dom Square (Initiatief Domplein 2013 2008; Initiatief Domplein 2013 2010):

- allure – identity – culture – faith – science – art – commerce – society – haven – monumental – debate – authenticity – evocation – identification – participation – sustainability – personal stories – connection with the city, the country (Limes) and Europe – hospitable – tidy.

There are three distinctive audience groups recognizable in both the *Positioning Strategy Paper* (Rennen 2013) and in the *Second Opinion* document (LAgroup 2011). Each of these audience groups acts as a target group for strategy and communication purposes regarding the positioning of DOMunder:

1. *Primary and secondary school students*
   It is expected that 13% of the total number of visitors will consist of school classes (LAgroup 2011). Therefore, the visit needs to be fun and educational for children.
2. *Visitors interested in culture and history*
   Within this segment two categories are deemed important:
   a. families with children aging 9+
   b. visitors aging 50+
3. *Sightseeing Tourists*
   While tourists do not form the majority of the total visitors for DOMunder, they are considered a specific audience as they bring in different languages and cultures.

Tier 1 **Matarasso's (1997) headings**	*Tier 2* **Applicable actions based on Matarasso's (1997) list**	*Tier 3* **Specific DOMunder actions**	*Tier 4* **Relevant Social Indicators**	*Tier 5* **Possible questions**
Local image and identity	Develop pride in local traditions and culture. Help people feel a sense of belonging and involvement. Improve perceptions of marginalized groups. Make people feel better about where they live.	Bring DOMunder to people's attention. Position DOMunder as part of a cultural 'oldspot'. Show visitors that Utrecht was founded here. Present Roman Utrecht as part of the Limes. Visualize the various historical layers.	Number of visitors already knowing about DOMunder before visiting Utrecht. Number of visitors visiting DOMunder as their primary goal. Number of visitors seeing the Dom square as a social forum 'connectedness' to the Netherlands. 'connectedness' to the various historical era's. 'Connectedness' to Utrecht.	Do you feel connected to Utrecht/The Netherlands / Roman history in the Netherlands? Is your visit to DOMunder the primary goal of your visit to Utrecht? Do you think that the Dom square could be used as a social platform? Do you know what the Limes is?
Personal Development	Increase people's confidence and sense of self-worth. Contribute to education. Help build new skills and work experience. Contribute to people's employability. Help people to develop or take up careers in archaeology.	Support and stimulate education for children. Support education for adults. Stimulate personal interest and valuation of archaeological heritage. Visualize the various historical layers.	Number of school-children and classes. Number of adults who learned something new about the history of Utrecht. Number of children who learned something new about the history of Utrecht. Personal valuation of archaeology. Number of people, adults and children, who gained a new skill. pupil-hours of schooling delivered. Number of people who gained self-worth and/or confidence. Number of partnerships with education bodies. Number of adult education programs. Number of participants in these programs.	Have you learned something new during your visit? Have you contributed to a discussion? Do you foresee a job in archaeological heritage in the future?

Table 3.1: Social indicators for the visitor questionnaire. After Matarasso (1997) and the North East Regional Museums Hub Tool.

Tier 1 **Matarasso's (1997) headings**	*Tier 2* **Applicable actions based on Matarasso's (1997) list**	*Tier 3* **Specific DOMunder actions**	*Tier 4* **Relevant Social Indicators**	*Tier 5* **Possible questions**
Social Cohesion	Develop community networks and sociability. Provide a forum for intercultural understanding and friendship. Develop contact between generations.	Present DOMunder as part of the Dom square, ergo, as part of a new social forum. Support social interaction for visitors, both adults and children.	Number of people contributing to a discussion. Number of people agreeing to seeing the Dom square as a social forum. New connections made. Number of new friendships. 'sense' of community. Number and percentage of visitors by ethnicity. Number and percentage of visitors by socio-economic status.	Have you talked to anyone from the group? Did you contribute to a discussion? Did you ask a question to the tour operator? Did you discuss the tour with your fellow group members? Did you discuss archaeology with your fellow group members? Did you feel connected to the other members of the group?
Community Empowerment and self-determination	Encourage local self-reliance and project management. Be a means of gaining insight into political and social ideas.	Stimulate self-education and discovering through curiosity. Facilitate public participation.	Number of research goals met. Political insight gained.	Have you set up your own research goals and met them? Did you learn something about the political and social background of the Netherlands? Did you follow your own route in the tour?
Imagination and vision	Allow people to explore their values, meanings, and dreams.	Present activity as experience. Stimulate the senses.	'experience'-rating. New insights gained.	Did you think DOMunder is a different experience than other heritage museums? How would you rate your experience? Would you consider your visit to DOMunder a new experience in your life? Did you gain a new insight during your visit?
Health and well-being	Have a positive impact on how people feel. Provide a unique and deep source of enjoyment – part of a person's quality of life.	Support cyclists and pedestrians.	Visitors visiting on foot/by bicycle. Subjective happiness.	Did you enjoy your visit? Do you feel happy after your visit?

Table 3.1 (continued): Social indicators for the visitor questionnaire. After Matarasso (1997) and the North East Regional Museums Hub Tool.

The above study was used in the creation of the methodological framework. This framework is built on the work of François Matarasso (1997), who deals with socio-cultural impact in the arts sector, and the North East Regional Museums Hub[20], which uses Generic Social learning outcomes to create an indicator bank for the museum world. While the creation and workings of the framework are more elaborately explained in the Theory and Methodology chapter (chapter two), it is important to emphasize that it consists of a general section (tiers 1 and 2) but also has specific case study foci (tiers 3 to 5). For each case study, the exact input location from activity specific goals and other aspects is found in tier 3 (table 3.1). Together, tiers 1 to 3 lead to the creation of case specific indicators and possible survey questions.

Prepared in both Dutch and English, the final version of the survey included 33 questions, divided into 6 sections which were based on the framework headings, and was supplemented by an additional demographics section. In addition, respondents were given the opportunity to voice opinions or add remarks in a comments section (see Appendix A1a for the English version and Appendix A1b for the Dutch version). Some of the questions included were not specifically linked to this research, but were rather incorporated to allow Stichting Domplein 2013 (with whom the data was shared) to be able to perform their own visitor analysis. However, only the questions and results relevant for this research are discussed in this chapter.

In total, 206 e-mail addresses were provided of people who bought their tickets online and visited DOMunder between the 1st of January and the 11th of March 2015. The recipients were contacted and asked to fill-out the survey by means of a personalized e-mail in which the research topic and method was explained. Two hyperlinks were provided: one leading to the Dutch version of the survey and one to the English version. The survey opened on the 12th of May 2015 and was closed on the 8th of June 2015, and resulted in 64 responses in Dutch and 1 in English. This resulted in a 31,6% response rate, a 68,4% non-response rate and a 12% error margin for a total population of 40.000 visitors. The sample is selective because it is formed by an online audience, favoring those comfortable with digital technology and present online. Furthermore, the survey yielded a relatively low amount of data, resulting in a possible non-response bias. This means that the survey is not representative of the 40.000 visitors DOMunder received in its first year[21], and the results should be treated with caution. Because of these confounding factors, the results are considered to be explorative rather than representative; and the analysis of the results (done in the next sub-section) indicative rather than definite.

3.4.2.2 Resident survey

The aim of this survey was to analyze the scope of impact DOMunder had on residents living close by. A face-to-face survey was chosen as methodology, mainly because there were no contact details such as e-mail addresses present, but also because this would allow the look and feel of the neighborhood to be observed, as well as physical distance between the interview location and DOMunder.

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20 http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources

21 http://archeologieinnederland.nl/node/558

This survey was partly created based on a resident survey performed in Oss-Horzak in 2015 (Van den Dries *et al.* 2015) which made it apparent that asking clear questions, while not trying to steer the respondents in their answers, is important. The Oss-Horzak field-experience also revealed that people do not have much time and are sometimes hesitant to co-operate with a door-to-door survey. This resulted in the DOMunder resident survey being more streamlined and shorter overall compared to the Oss-Horzak survey, with the easier questions listed at the start of the survey rather than in the end.

Unlike the visitor survey, this survey is not based on goals set by the organization of an activity, nor is it based on Matarasso's work. Rather, it is based on both the overall research goals discussed in section 1, and on specific stakeholder research goals. The first aim was to see what kind of sociocultural impact was perceived by the residents (table 3.2). While the questions have a similar tone as the questions for visitors, and touch upon a variety of sociocultural aspects, they were mainly chosen based on applicability and not based on a pre-existing framework. The topics and questions mainly concentrated on the impact on residents' daily lives of the physical presence of DOMunder, such as the increase of tourists, and their opinion on having an archaeological attraction close to their home.

Resident research goals	**Topics**	**Possible survey questions**
To understand the scope of sociocultural impact of DOMunder on the daily lives of residents living close by	Impact of living close by DOMunder reason for staying in Utrecht Notice increase in visitors and how does that impact your life	Do you like living close by an archaeological attraction? Do you notice an increase in visitors? How does that affect you?
Create insight into the potential impact of visiting DOMunder	Interest in Dutch versus Utrecht archaeology Reasons for potential visit Visiting company	How interested are you in archaeology? Have you visited DOMunder yet? Are you planning to? With whom would you visit if you were?
Create insight into the potential social impact of DOMunder versus the Domplein Square	Association of residents with Domplein Square Social role of Domplein square versus DOMunder Other benefits	Where do you associate the Domplein Square with? Do you see a social role for the Domplein Square? And for DOMunder?
Volunteer research goals	**Topics**	**Possible survey Questions**
Get basic demographic data	Gender Age categories	What is your gender Age categories: 20-30, 31-40, 41-50, 51-60, 60+
Understand time investment and reasons for doing volunteer work for cross-comparison	Time active as a volunteer Relation with other work Reasons for doing volunteer work	How long are you active as a volunteer? How much time do you spend as a volunteer? What is the reason for joining as a volunteer?
Create insight into the scope of the impact of DOMunder for the volunteers	Impact on skills Impact on personal traits Impact on meeting new people	Did you gain any new skills due to your volunteer work? Did volunteer work contribute to certain personal traits? Did you meet new people and do you still have contact with them?

Table 3.2: Resident and Volunteer research goals with related topics and possible survey questions.

Secondly, at the same time, the survey was used as a means to gather opinions on a potential visit in order to predict the potential sociocultural impact. Thirdly, it was used to see if there is a difference in the social role of the DOMunder attraction versus that of the Domplein Square. The questions functioned as 'stand-alone' entities: broad enough for each respondent to associate with, but also practical enough to be manageable and quantifiable.

Because Initiatief Domplein, together with various stakeholders, is actively trying to reinvigorate the square and turn it into a social and cultural 'oldspot', some questions were linked to the positioning of the Domplein Square as well. Konstantina Zarra, a former student at the Faculty of Archaeology who studied the economic and social impact of religious monuments, contributed to this case study by providing information on the history of the Domplein square. She also performed various qualitative interviews with Domplein square stakeholders, and contributed to the creation of the final questions for the resident survey as well as carrying it out (see Appendix A2a for the final English version of this survey and Appendix A2b for the Dutch version). Because it was likely that there would be English speaking residents living in the research area, the survey was prepared in both Dutch and English. The survey was held in the summer of 2015, between the 18th and 23th of May, and was performed by three interviewers in total: two students from the Faculty of Archaeology (Konstantina Zarra and Eline Amsing), and the author of this thesis.

A map was made of the DOMunder neighborhood, in which potential interviewees were indexed. Approximately 1053 houses on 28 different streets were counted, in an area called the 'Dom Quarter'. This specific area was chosen in order to include residents living close enough to DOMunder to sense the impact of its existence. The 'Dom Quarter' area, with its boundaries lying close to the DOMunder activity and with its streets surrounding the Domplein Square (figure 3.3), provided a suitable geographic

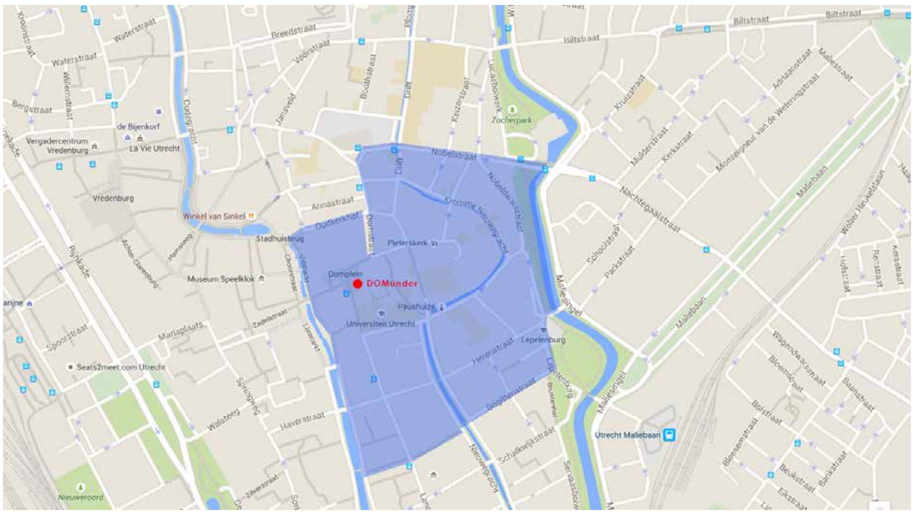

Figure 3.3: Map of the inner city of Utrecht. The area covering the geographic boundary of the Dom Quarter is presented in blue. In this area, we counted 1053 residential houses. Copyright: Google.com.

boundary, conveniently set by the municipality of Utrecht for marketing and touristic purposes: it comprises the historic inner city of Utrecht, including many historic monuments and well-known museums[22], residential buildings, museums, public buildings, monuments, and a variety of small and large companies including retail, food- and drink establishments. During the 5 fieldwork days, 92 people with a variety of ages, sexes and social backgrounds co-operated; 60 responses were counted in Dutch and 32 in English. Based on these numbers, and by using a 95% confidence level, an error margin of 9.7% is generated. While this percentage is relatively high, it is acceptable because this research is explorative rather than decisive in nature. To achieve a more accurate result, (with, for instance, a 95% confidence interval and a 5% error margin) more than 280 responds would be needed, which was not possible given the circumstances. Furthermore, the possibility of sample-bias is also present: the three interviewers worked only during daytime, roughly between 10AM and 6PM, meaning that a considerable number of residents were inherently excluded from participation. Because of these factors, the results are not representative for the area of the Dom Quarter.

3.4.2.3 Volunteer survey

A third survey was prepared for the volunteers working at DOMunder as tour guides, who provide essential background information on the archaeology and history of the Domplein Square area, Utrecht, and its national and international context. The survey is based on the overall research goals set in section 1 of this chapter and on specific stakeholder research goals*;* to understand the time investment and reasons for doing volunteer work and to gain insight into the scope and weight of the sociocultural impact on volunteers (table 3.2). These volunteers are important not only because they provide essential information to the visitors, but also because they form the backbone of the DOMunder activity, providing the majority of worked hours. In return, the Domplein Initiative provides training, work, and a social platform for people interested in history and archaeology or for those who are obliged to do volunteer work.

Because of their position, the survey focused on work related issues, which are commonly used for researching social impact on volunteers working in the museum sector (Museum of East Anglia Life 2011; Mills and Young 2009), but also included a copy of the questions asked to the DOMunder visitors. The latter was done to see if there is a difference between the two groups- both can be considered active DOMunder stakeholders (although in varying levels, as discussed in section 3 and 4), whereas the resident stakeholders are more passive in their role. The questions, while similar in tone and topic, were not based on a pre-existing framework, as for the visitor questionnaire, but rather based on general applicability.

A questionnaire was created in close co-operation with the marketer of DOMunder, as well as Eline Amsing, a former student of the Faculty of Archaeology and former volunteer at DOMunder, and Frank Kaiser, coordinator of the volunteers. Background information on this group of people was provided, as well as their e-mail addresses.

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22 See the website http://www.bezoek-utrecht.nl/domkwartier for more information about this historic part of the city

Using SurveyMonkey, the questionnaire was put online on the 23rd of June 2015 and was open for volunteers to fill-out until the 11th of June 2015. As the volunteers were all Dutch, the questionnaire was prepared in Dutch only (see Appendix A3).

In total, 33 volunteers filled out the questionnaire, which counts for more than half of the total number of volunteers at the time of writing (58). Although the coordinator of the volunteers approached them personally, it still proved difficult to get everybody to cooperate. For a 95% confidence interval with a 5% error margin, we would need at least 48 volunteers to have answered the questionnaire. This means that the survey is not representative of the total number of volunteers working at DOMunder. The survey also possibly includes a sample bias, although this should be smaller than the sample bias for the visitors and residents, as the method of operation was personal communication with a small selective group, rather than e-mail or a door-to-door survey during the day. While not strictly representative, the survey provides a valuable insight into the sociocultural impact of DOMunder for this particular stakeholder, fitting for the scope of this case study, and in line with the other two surveys.

3.5 Results

This section covers the results of the visitor questionnaire (3.3.1), the resident survey (3.3.2) and the volunteer survey (3.3.3). Interpretation of this data will be discussed in sub-section 4. The data discussed here focuses on the DOMunder case study; a comparison with the You(R) Archaeology and Invisible Monuments cases studies is made in chapter 6. Important to note is that respondents were free in skipping questions in the survey. This means that for some questions the number of answers is lower than the total number of survey participants (n=65). The number of answers for each question is indicated in its description.

3.5.1 Visitor survey

3.5.1.1 Demographics

In total, 60 out of 65 people who started the survey finished the questionnaire (92.3%). Most of the respondents (20.3%) visited DOMunder in May 2015 (figure 3.4); 1 person visited the attraction in November 2014. This person's visit was more than half a year prior to filling out this questionnaire, but from his answers to the open questions it was clear that it left a firm and clear impression. While it was initially decided to only include data from those who visited DOMunder in 2015, this person's data was deemed valid, and thus was included as well.

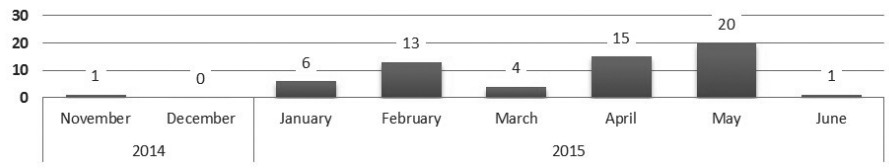
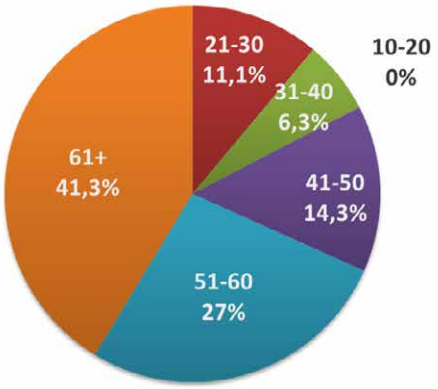


Figure 3.4: Showing the months in which the respondents visited DOMunder. Numbers are absolute (n=60).



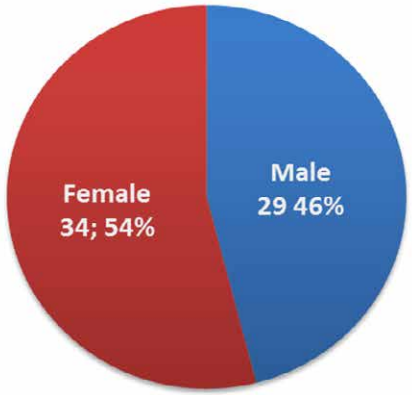


Figure 3.5 (above): Left figure: Age composition of the respondents (n=62). Right figure: Gender composition of the respondents (n=63).

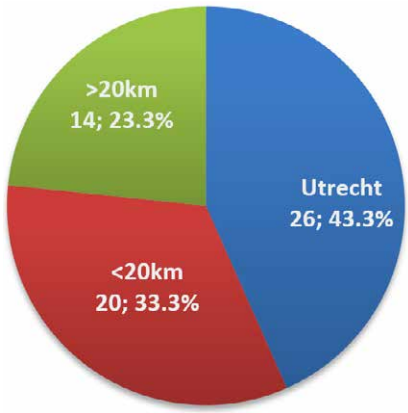


Figure 3.6 (right): Distance to the DOMunder activity (n=64).

By far the largest group of people consisted of the age category 61+ (N=26 of 62 total responses; 41.3%, figure 3.5). The age category 51-60 comprises the second largest group (N=17; 27%). Combined with the older visitors of the 61+ group, this means that 68,3% of the visitors were older than 50. A majority of elderly people attending public archaeological activities is not an unfamiliar observation for the sector, both in the Netherlands (van den Dries *et al.* 2016; van den Dries *et al.* 2015; Van den Broek *et al.* 2009; NIPO/AIC 1996) and in Europe (Van den Dries and Boom 2017). While it seems that older people are overrepresented, DOMunder also receives many schoolchildren, either with parents or with in classes, but apparently, they did not respond to this survey.

Furthermore, we see a slight majority of female responses: n=34 (54%, n=63) against 29 (46%, n=63) male responses (figure 3.5).

The distance between visitor's homes and the place of the activity influences their attendance levels (van Den Dries *et al.* 2016). To see whether or not distance also played a role in visitor numbers for DOMunder, respondents were asked about their place of residence. Sixty respondents shared this information (92,3%, n=65). The distance between each individual's town or city and the location of DOMunder was calculated using Google Maps. The outcomes were categorized into three groups:

1. Visitors living in Utrecht
2. Visitors living less than 20 kilometers from Utrecht
3. Visitors living more than 20 kilometers from Utrecht

Most of the visitors (43.3%, figure 3.6) were residents from Utrecht. A third of the visitors lived relatively close to the DOMunder attraction (33.3%) and the smallest group (23.3%) came from more than 20 kilometers away. Remarkably, 3 visitors traveled more than 100 kilometers, but since traveling motivation was not part of the survey, it remains unclear whether visiting DOMunder was their main goal, or that other reasons were the cause for traveling such a distance.

3.5.1.2 Local image and identity

An important goal of Foundation Domplein 2013 is to make people feel more connected to the city of Utrecht and its (archaeological) history. To gain insight into this aspect, a survey question was included which asked respondents whether they feel more connected to either Utrecht, the Netherlands, or both after their visit, and if so – how much. Sixty-three out of the total 65 people answered this question (97%). The majority of the respondents (92%) experienced an increase in their connection to Utrecht and the Netherlands; only 10 people indicated that there was no change at all (8%, figure 3.7). This seemingly positive outcome can be the result, however, of the scale titles of this Likert scale, which has one 'negative' score (Not at all) and four 'positive' scores ('Slightly', 'Somewhat', 'Moderately' and 'Extremely').

When compared, it appears that people experience higher levels of connectedness to Utrecht (figure 3.7). A comparison of average scores between Utrecht and the Netherlands confirms this difference: 3.6 versus 2.7, respectively. A KS-test proves normal distribution pattern with p=<0,000 (n=63) and a Wilcoxon Signed Ranks test with p=<0.000 reveals a Z=-5.439 (n=63), meaning that the observed difference is statistically significant.

The next step was to amalgamate the three distance categories into 'Non-Utrecht' (n=37) and 'Utrecht' (n=26) groups and compare them with the results for connectedness. The graph for people's feeling of connectedness to Utrecht (figure 3.8) reveals that almost the same number of Utrecht residents as Non-Utrecht residents felt an increase (96.2% versus 100% respectively) to their connection to Utrecht. However, Utrecht residents scored 'somewhat' higher than the Non-Utrecht groups (50% versus 35.1%, respectively); 'Moderately' and 'Extremely' were both more chosen by non-Utrecht respondents. Because of this, it seems that the people living in Utrecht answered more neutrally and the Non-Utrecht residents answered more positively.

However, weighted average scores between the two categories only differ 0.1 points (3.6 for Non-Utrecht residents and 3.5 for Utrecht residents).

The 'neutral attitude' of the Utrecht residents is mirrored in the graph showing the results on their connectedness to the Netherlands (figure 3.8). Again, the Utrecht residents chose 'Somewhat' the most (34.6% versus 32.4% Non-Utrecht), but instead of an ensuing positive rating, seen in their connection for Utrecht, a more negative score is pictured here: 30.8% of the Utrecht residents (N=8) chose the 'Not at all' option versus 2.7% non-Utrecht. This means that almost a third of the Utrecht visitors did not feel more connected to the Netherlands after their visit to DOMunder. It also seems that the Non-Utrecht residents scored more neutral with a combined 70.2% in the 'Slightly' and 'Somewhat' categories. When we compare the average scores between the two resident groups, a much larger difference is seen; 3.0 versus 2.1 for Non-Utrecht and Utrecht residents, respectively.

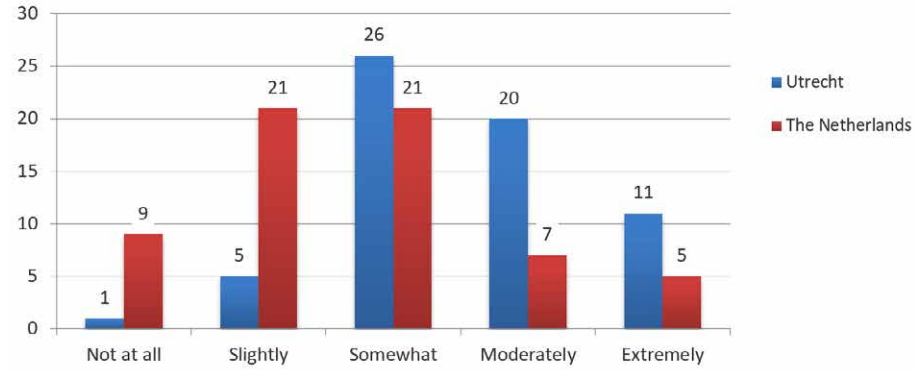


Figure 3.7: Difference in increase of visitor connection between Utrecht and the Netherlands. Red bars indicate number of times a certain score was given for connectedness to the Netherlands, blue bars indicate this for Utrecht. Numbers are absolute (n=63).

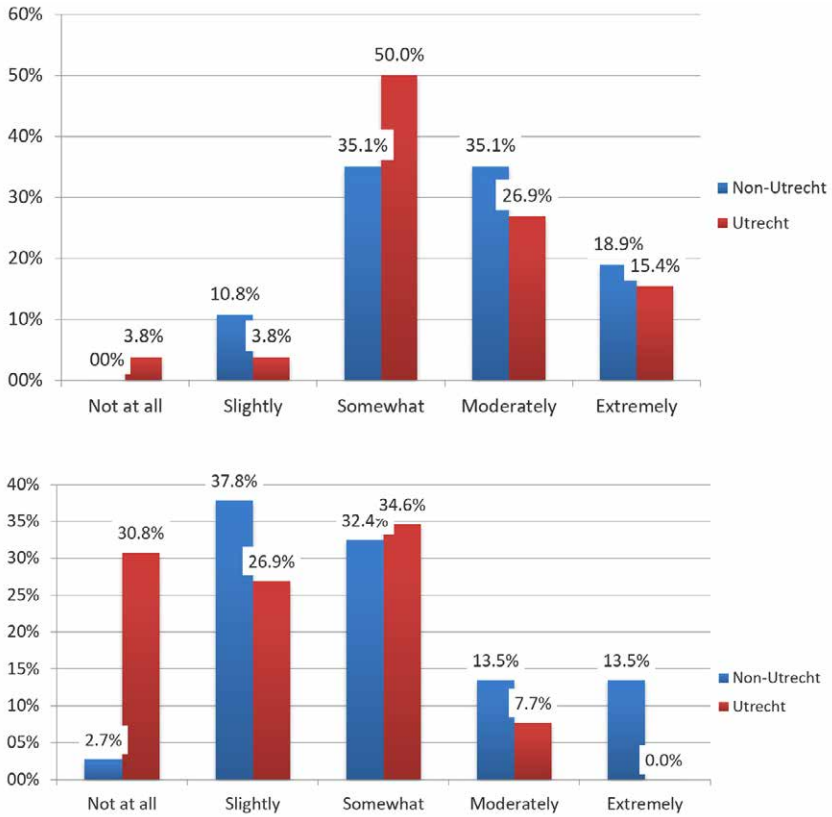


Figure 3.8: Top: Connectedness to Utrecht for Non-Utrecht and Utrecht residents (n=63). Bottom: Connectedness to the Netherlands for Non-Utrecht and Utrecht residents (n=63).

The strong 'local' focus of impact could be due to the fact that the activity is located in Utrecht and focuses on Utrecht's archaeological history. However, during the tour, at various times, there are references to the importance of Utrecht's development for the Dutch society. From the data in this survey however, we cannot analyse

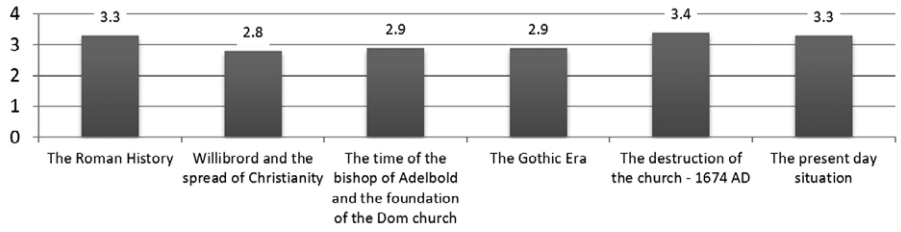


Figure 3.9: Connectedness to the various time periods (n=63). Figures shown are weighted averages. Note the clear divide between the two groups of time periods.

whether people understood the connection between Utrecht and the Netherlands but did not connect to it, or that they did not understand the link between the history of Utrecht and the Netherlands. The difference between Utrecht and Non-Utrecht residents in their rating for connectedness to the Netherlands could be due to the fact that people from Utrecht are possibly already proud of Utrecht and are therefore more focused on their city's local history whereas people traveling from further away may be more open to see the broader historical picture – perhaps even relay it to their home town.

Next to the connectedness to Utrecht and the Netherlands, respondents were asked about their feeling of connectedness to the various time periods presented during the tour, in order to see which part of the activity made the most impact. Averages were calculated for each time period (figure 3.9). On the basis of this, two groups of scores can be distinguished: the 'Roman History', 'The destruction of the church – 1674 AD' and 'The present day situation' score between 3.3 and 3.4, and the rest of the time periods ('Willibrord and the spread of Christianity', 'The time of the bishop of Adelbold and the foundation of the Dom Church', and 'The Gothic Era' scored between 2.8 and 2.9.

The difference in scores could be attributed to the fact that the Roman History and the destruction of the church are eras heavily emphasized during the tour. The former through the many archaeological remains and the overall emphasis on the importance of the Limes, the latter through a scripted event which, through captivating audio and video means, illustrates the destruction of the church, and signals the end of the tour leaving a final imprint on the visitors. While at the end of the tour the relevance of DOMunder's' archaeological history is explained through an audio comment, and the introductory film hints on the present role of the Domplein Square, 'The present day situation', as an era, is not archaeologically visible during the tour. This makes a 3.3 average score quite surprising. Perhaps the unique location of DOMunder, right under the contemporary Domplein Square, allows people to more easily connect with its history and link this to the present day situation. This 'linking' happens twice during the tour, once at the start of the tour and once at the end; in the former situation people literally descend from contemporary times into the archaeological history, in the latter people ascent to contemporary times after experiencing the local history. Furthermore, it seems that the emphasis on certain parts of history, provided by archaeological and multimedia assets, influences people's connectedness towards certain time periods.

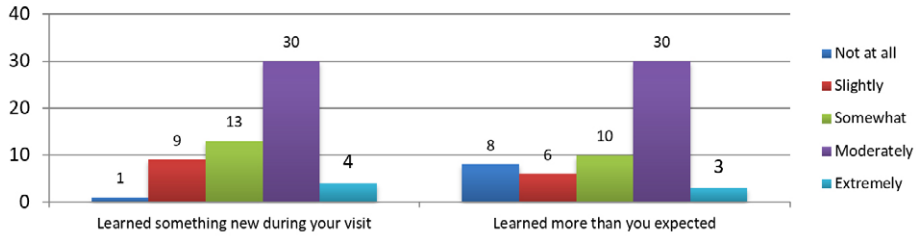


Figure 3.10: Scores for the questions 'did you learn something new during your visit' (left) and 'did you learn more than you expected' (right). Numbers are absolute (n=57).

3.5.1.3 Personal development

(Lifelong) learning is "at the 'core' of individual impacts" (Bollo 2013, 12). Matarasso discusses the impact of the arts on learning and writes that "participating in the arts is a major confidence builder (as already illustrated) and a means of developing people's skills" (Matarasso 1997, 32).

Two questions were included: 'Did you learn something during your visit?' and 'Did you learn more than you expected to?'. The gathered data give an insight into the educational/academic impact of DOMunder on its visitors, as part of the historical value of culture (Mason 2002). This data is important for cross-analyses between the three case studies in this thesis, as well as for benchmark studies to be performed by Foundation Domplein 2013.

For both questions, 57 responses were counted (87%, n=65). The most common score was at the 'Moderately' level: 54% for both questions (figure 3.10).

Weighted average calculations for these questions result in scores of 3.5 for the former and 3.3 for the latter question. These results are quite high compared to the other impact levels discussed in this chapter, but low compared to the results from the *Invisible Monuments* case study (see chapter 5 for these results and chapter 6 for a comparison and discussion of the case study data). Furthermore, this score is interesting because DOMunder's main goal is to present its visitors with an archaeological 'experience' and to be fascinating, imaginative, and exciting. Educating visitors was not a main objective, but rather an effect of those stimulating aspects, which was to be expected but which had not yet been confirmed. Indeed, it turns out that by delivering visitors an experiential educational environment, learning is stimulated and visitors took the opportunity to educate themselves about history. This outcome fits well with experiential learning theory, which places the process of experience and reflection at the heart of all learning (Fowler 2008; Mezirow 1998, 1981; Freire 1972) to enhance education. The underlying concept of experience plus reflection equals learning (Dewey 1938), has a firm presence in educational literature (Jarvis 2004). Within the archaeological field, artificial and virtual realities (Villerajo *et al.* 2014; Champion 2014), as well as video games (Mol *et al.* 2017; Mortaraa *et al.* 2014; Graham 2014) are contemporary examples of using this experience and interaction to increase knowledge. While not using these digital means per sé, DOMunder does use a game-like concept (searching for clues) to make the activity exciting and playful. It can be concluded that an experience-oriented exposure to history and archaeology translates into an increase of knowledge.

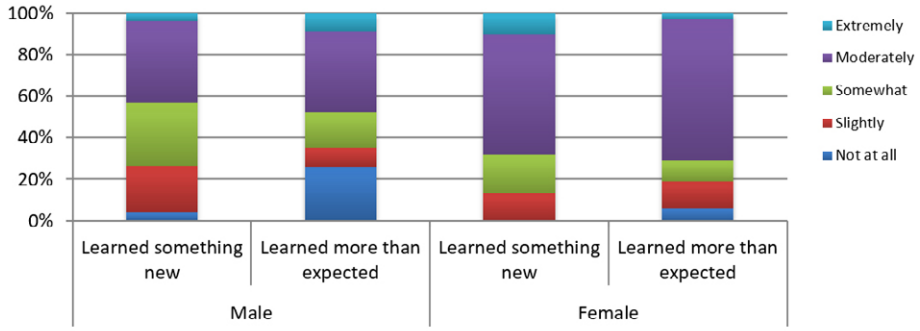


Figure 3.11: Scores for the questions 'did you learn something new during your visit' and 'did you learn more than you expected' for males and females.

With a total of 86% of the visitors indicating that they learned more than they expected, it seems that DOMunder was indeed expected to be more of an experience than an actual educational environment by the visitors as well. Perhaps visitors anticipated a short and touristic tour at first, but were intrigued during the tour to actually participate and learn. However, because this score is quite high, it could also be the case that respondents did not understand the question correctly, a hypothesis strengthened by the fact that results for both questions are very similar.

A comparison between male and female respondents shows an interesting pattern (figure 3.11). The 23 male respondents' scores for learning something new were rather average (3.2), while scores for the 32 female respondents were mostly counted within the 'moderately' level, contributing to a more positive score overall (3.6 on average). This distribution is also seen in the results for the 'learning more than expected' question, with males scoring 3.0 and females scoring 3.5 on average. Furthermore, males choose the 'not at all' option more often for the 'learned more than expected'-question than females: 26% for versus 6,5%, respectively. A Mann Whitney U approaches but does not reach statistical significance for a difference between the genders (U=265, p=.057, n=55).

The above could indicate that males had a higher expectancy of the activity in terms of educational challenges and/or that they had a higher level of historical knowledge prior to their visiting. This connects well with the fact that Dutch males are more involved in archaeological activities, such as watching a documentary film or visiting an archaeological exhibition, than females (Van den Dries and Boom 2017), possibly raising their expectations and/or knowledge levels.

When results from these questions are compared with the scores for age categories, we see that the younger people, between the ages of 21-30, were more positive about the perceived educational impact whereas people belonging to the older age categories were less positive. The averages show that the younger generation apparently gains the most from their visit to DOMunder in terms of learning (figure 3.12). Indeed, a Kruskal-Wallis H test showed that there was a statistically significant difference in scores for 'learning something new', $\chi 2(2)=10.236$, p=0.037, with a mean rank 'learning' score of 41.7 for group 1 (21-30 years old, n=6), 37.5 for group two (31-40 years old, n=3), 29.5 for group three (41-50 years old, n=7), 26.5 for group four (51-50 years old, n=16) and 23 for group 5 (60+, n=22).

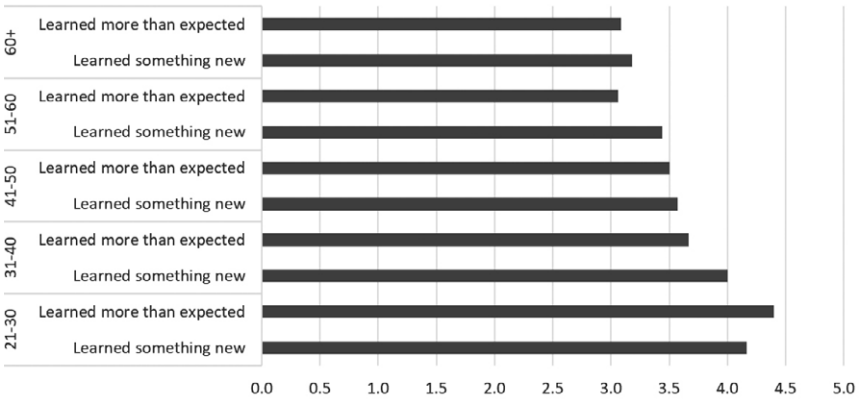


Figure 3.12: Weighted average scores for the questions 'did you learn something new during your visit' and 'did you learn more than you expected' for the different age categories. For the age category of 21-30, n=5 learned more than expected and n=6 learned something new; for the age category of 31-40, n=3 learned more than expected and n=3 learned something new; for the age category of 41-50, n=6 learned more than expected and n=7 learned something new; for the age category of 51-60, n=16 learned more than expected and n=16 learned something new; for the age category of 60+, n=24 learned more than expected and n=22 learned something new.

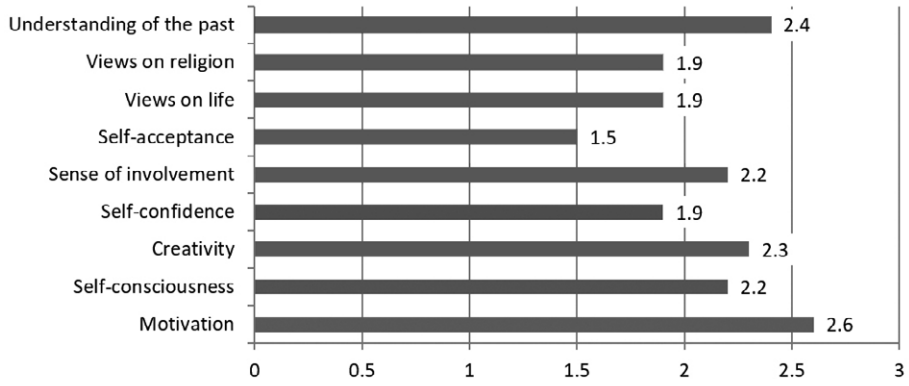


Figure 3.13: Weighted average scores for the impact of DOMunder on respondents' personal traits (n=57).

The reason that younger people perceive a higher educative impact could be that they are more susceptible to the experiential approach of DOMunder and as such more eager to learn. Another reason could be that the Dutch younger generations are less involved in archaeological activities (Van den Dries and Boom 2017), and as such have less prior knowledge – information gained at DOMunder is perceived as new and educational. However, since the reasons for feeling educated are not asked in the survey, this cannot be verified.

The development of personal attributes, such as creativity, motivation, and self-acceptance, are indicators of sociocultural impact (Bollo 2014; Matarasso 1997). While the development of these attributes is not considered a main goal for DOMunder, gaining

	21-30 (n=7)	31-40 (n=4)	41-50 (n=9)	51-60 (n=17)	60+ (n=26)	**Average**
Understanding of the past	1.9	3.0	2.1	2.1	2.7	2.4
Views on religion	1.6	2.7	1.9	1.7	2.0	2.0
Views on life	1.4	3.3	2.3	1.9	1.8	2.1
Self-acceptance	1.0	1.3	1.4	1.5	2.3	1.5
Sense of involvement	1.6	3.3	1.9	2.2	2.3	2.2
Self-confidence	1.7	2.0	1.7	1.6	2.2	1.9
Creativity	2.4	2.7	2.3	2.0	2.5	2.3
Self-consiousness	2.4	2.7	2.0	1.8	2.4	2.2
Motivation	2.9	2.7	2.3	2.3	2.8	2.6
Total	16.9	23.7	17.9	17.0	21.0	19.2
Average	**1.9**	**2.6**	**2.0**	**1.9**	**2.3**	**2.1**

Table 3.3: Weighted average scores for personal attributes per age category. Green shows the highest scores, red the lowest.

insight into DOMunder's impact will add to our understanding of their relevancy and applicability, and throw light upon possible opportunities for archaeological heritage activities in aiding personal development. Based on sociocultural indicator research (Bollo 2013; Matarasso 1997) and similar case studies (Mills and Young 2009), 9 attributes were selected for inclusion: Understanding of the past, views on religion, views on life, self-acceptance, sense of involvement, self-confidence, creativity, self-consciousness, and motivation (figure 3.13). Note that understanding of the past, views on religion and views on life were part of a question about the impact of seeing a real skeleton during the tour (see the Imagination and vision header further on in this thesis), and does not particularly reflect upon visitor's total experience of the activity. This is different in the other case studies where this attribute is linked to the total experience but for the sake of comparison these aspects are included here. In total, 57 responses were counted.

People felt most impact on their motivation (2.6). Together with a score of 2.4 for understanding the past and a 2.3 for creativity, this means that the experiential approach of DOMunder does translate into enthusiasm and a creative learning environment. However, the scores for these attributes can be considered low in comparison with other averages in this case study, as well as in comparison with the scores for these attributes in the *You(R) Archaeology* and *Invisible Monuments* case studies. It is interesting to see that people did not feel a large impact on their self-confidence, as one would perhaps expect that an increase in knowledge translates into people feeling more confident. While much of the DOMunder activity revolves around religion, it did not

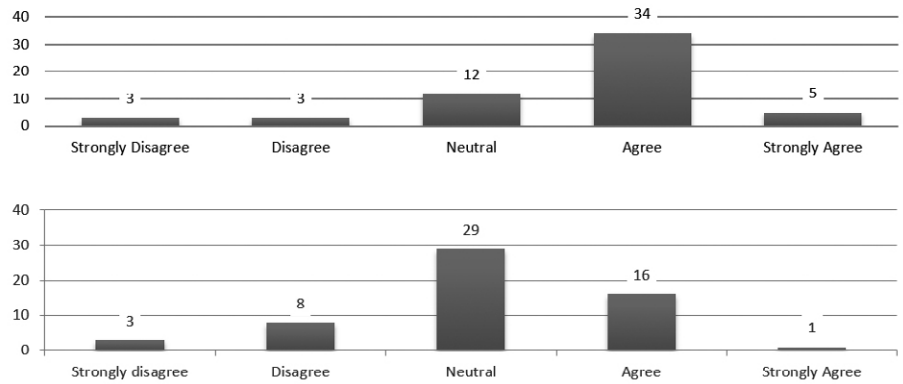


Figure 3.14: Top: Scores for the statement 'DOMunder contributed to your ability to better understand the value of archaeology' (n=57). Bottom: Scores for the statement 'You feel more confident talking about archaeology after your visit to DOMunder' (n=57).

have a high impact on people's views (1.9). Perhaps they did learn about the religious history of Utrecht, but this did not affect their religious bearings or outlook.

When looking at the impact per age category, we see that the most impact is perceived by the age group of 31-40 years old (table 3.3), with a weighted average rating of 2.6. Interestingly, self-confidence and self-acceptance were scored highest by the oldest generation. This could imply that older people are better at reflecting educational experiences to a sense of self than younger generations, or that they are more susceptible to this kind of impact. Another peculiar outcome are the scores for understanding the past, which scored lowest for the age category 21-30 whilst it was this group who scored highest for 'Learning something new' and 'Learning more than expected'. Perhaps this is due to the fact that this question in particular reflected upon seeing a skeleton, whereas the other results reflect upon the total DOMunder experience.

Based on these results we can conclude that DOMunder did not have a high impact on people's personal attributes overall. However, as said, this was also not its main goal. This means that there is an opportunity for archaeological activities like DOMunder to adapt their strategies to incorporate personal development goals, possibly changing impact outcomes.

Since the heritage field is increasingly dependent on the public for valorization, understanding DOMunder's contribution to peoples' appreciation of the value of archaeology and, by extension, whether they feel more comfortable talking about it, is highly relevant. In addition to this, these topics are included in this section because both are aspects of personal development.

In contrast to the previous questions which used a 5-point Likert scale with question-levels ranging from 'Not at all' to 'Extremely', here, a 5-point Likert scale with statement-levels ranging from 'strongly disagree' to 'strongly agree' were given as options. This was done to see how people would answer and to compare the results with the other scales for its effectiveness in analyzing sociocultural impact (for the discussion of this, see chapter 6). The first statement read 'DOMunder contributed to your ability to better understand the value of archaeology' was answered by 57 out of 65 respondents (87.7%). Most of the respondents agreed with this statement (59.6% – figure 3.14).

The next step is to compare these results with the results for the statement 'You feel more confident talking about archaeology after your visit to DOMunder'. This gives an insight whether the appreciation of the value of archaeology is an intrinsic or extrinsic process, with the latter resulting in people talking about archaeology with others. The results for this question were less positive, with the majority of the 29 respondents scoring neutral (50.9%).

A Spearman's Rho test shows no correlation between the two outcomes, as the correlation co-efficient results is 0.490 with high statistical significance ($p<0.0001$, $n=29$).

This means that while people might understand the value of archaeology better after their visit, this does not translate into them being comfortable enough to talk about it with other people. While the phrasing of this question could be a bit sharper, for instance through adding 'the value of' before 'archaeology', respondents' understanding between these two results might be stronger. However, 'talking about archaeology' could be interpreted as talking about the worth of archaeology, or archaeology in general, including the value of archaeology. In any case, this result means that for people to confidently talk about archaeology and thus, shift the large pool of neutral results to 'agree' or 'strongly agree', a different approach has to be taken which incorporated that outcome into the management plan as an activity goal.

It was expected that visiting DOMunder would not have extensive impact on skill development as people were not able to physically interact with heritage to learn, for instance, how to excavate. However, to be sure the question was included and people were free to comment if they indicated that DOMunder provided them with a skill development opportunity. It turned out that 21.1% (12) of the visitors indicated that DOMunder impacted their skill development; 78.9% (45) thought not so. Open comments provide details as to which skills people thought of when answering this question; two categories can be distilled – a 'boost' in historical knowledge, or using the sensor seeker-pistol. While arguably no 'typical' skills, the fact that people felt to be impacted in their skillset is valuable on itself, as this suggest a positive change in people's lives.

3.5.1.4 Social Cohesion

Another way of showing sociocultural impact of a public activity is by mapping how many visitors met other visitors and whether or not they still have contact with each other. Meeting (new) people and creating friendships are important parts of the social cohesion header in Matarasso's framework on sociocultural Impact (Matarasso 1997). For DOMunder, meeting new people is not a goal, rather conversely, in the positioning strategy paper we read that DOMunder tries to achieve 'individual learning moments' (Rennen 2013, 13), instead of collective ones. However, DOMunder forms part of the Domplein Square strategy to 'position it as a monumental and cultural 'oldspot'' (Rennen 2013, 3), which means using the square for social events and as a communal space.

The question was answered by 57 respondents (87.7% of n=65) and showed that 9 visitors indicated to have met new people (15.8%, figure 3.15). It was intentionally not elucidated in the survey what this 'meeting' should encompass because this differs per person: some might feel they 'met' when merely a sparing conversation was shared while others feel this way only when a considerable period of time was shared; the outcome, namely visitors feeling some sort of connection to each other, remains the same. Only 1 respondent still has contact with the person he met (figure 3.15, in light-grey).

Figure 3.15 (right): Results for the question "did you meet new people during your visit to DOMunder?" (n=57). In light-grey, the number of people who still have contact with those they met.

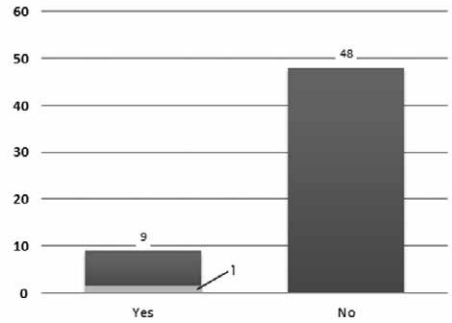
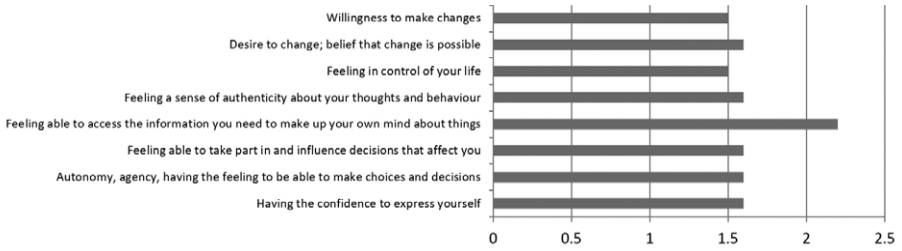


Figure 3.16 (below): Weighted averages of the personal traits linked to the concepts of community empowerment and self-determination (n=53).



This result is comparable with the results for the question whether or not respondents felt connected to the group they were part of: only 5 respondents indicated to 'agree' with this (8.8%). While many people come together here (tour groups consist of about 20 people), these numbers show that DOMunder is not considered a suitable place to make friends but, rather, a solo experience.

Interestingly, of the 9 visitors indicating to have met new people, five were aged 60 years and older (55.6%), two between 51 and 60 (22.2%) and two persons were younger than 50 (22.2%), meaning that older people in particular used DOMunder as an opportunity to meet other people. Unfortunately, the open comments in the survey for these particular entries do not add to the understanding as to why this was the case.

3.5.1.5 Community Empowerment and self-determination

Community Empowerment and self-determination are often used in studies to measure social impact, for instance in the social housing sector (Trotter *et al.* 2014) or in volunteer work (Rosemberg *et al.* 2010); they also form one of six headers of Matarasso's framework (Matarasso 1997). These two concepts are parent to some personal traits, 8 of them were incorporated as indicators:

- The willingness to make changes
- The desire to change, or the belief that change is possible
- The feeling of being in control of your life
- The feeling of a sense of authenticity about your thoughts and behavior
- The feeling of being able to access the information you need to make up your own mind about things
- The feeling of being able to take part in and influence decisions that affect you
- Autonomy, agency, having the feeling of being able to make choices and decisions
- Having the confidence to express yourself

Because DOMunder does not aim to affect peoples' ability to express themselves and develop their agency, as expected, the majority of respondents did not perceive a high impact: the highest average scored 2.2 (figure 3.16). In total 53 out of 65 people responded (81.5%).

While the score of DOMunder's impact on these traits is relatively low, this does not mean that they are irrelevant. For instance, 33 out of 53 respondents (62.3%) indicated that DOMunder contributed to their ability to access relevant information, meaning that DOMunder helped them make up their mind about archaeology. This is reflected in the results of people feeling that they are now better able to valuate archaeology: those who indicated that DOMunder enabled information access were the ones that indicated ('Agreed') to better understanding the value of archaeology (figure 3.17).

Interestingly, 9 respondents who did not feel that DOMunder provided information, still feel that they better understand the value of archaeology after their visit. Perhaps this means that while DOMunder did not provide relevant information in their perception, the experience of seeing archaeological remains in their original context provided enough substance for them to better understand their value. Apparently, access to information is not the only reason for people to better understand the value of archaeology, although it contributes greatly.

Perhaps the reason for people's higher score for their feeling of being able to access information is related to the goal of DOMunder to 'make visible the historical layers of the square […]' (Rennen 2013, 3), implying a focus on sharing information. Clearly, DOMunder delivers when it comes to the involvement of people (2.2 weighted average score), while giving them the opportunity to access relevant information (also a 2.2 weighted average score). However, these scores are relatively low compared to other scores in this survey, meaning that there is still room for improvement.

The lower scores given to other traits could also be caused by respondents having difficulties understanding the question and its various aspects, as is made clear though various comments on the questionnaire stating that the questions were 'strange' and 'farfetched' (translated from Dutch), a notion mirrored in the low response rate for this question.

The archaeology found in DOMunder covers a broad spectrum of historical events and as such touches upon religious, political, and social aspects and events. During the tour, these aspects are not only visible through the archaeological remains, but are also made apparent through the narration of the DOMunder story. The impact of these aspects connects well with what Matarasso calls 'to be a means of gaining insight into political & social ideas' and to help 'people extend control over their own lives' (Matarasso 1997, 48), and as such they are indicators for the Community Empowerment and Self Determination header. While the expected impact was low considering that changing people's views on religion, politics, and social life is not the main goal for DOMunder, this hypothesis still needed to be tested.

In total, 53 out of 65 respondents answered this question (81.5%), and most did not feel that their view on these aspects had changed after their visit to DOMunder (figure 3.18). Religion, with a weighted average score of 1.8 compared to 1.5 for politics and 1.6 for social life, seemed to be impacted upon the most.

These scores mean that while DOMunder provides information about archaeology, this does not affect visitors' views on these three aspects much. This could be due to the fact that the information is provided neutrally, without emphasizing specific aspects,

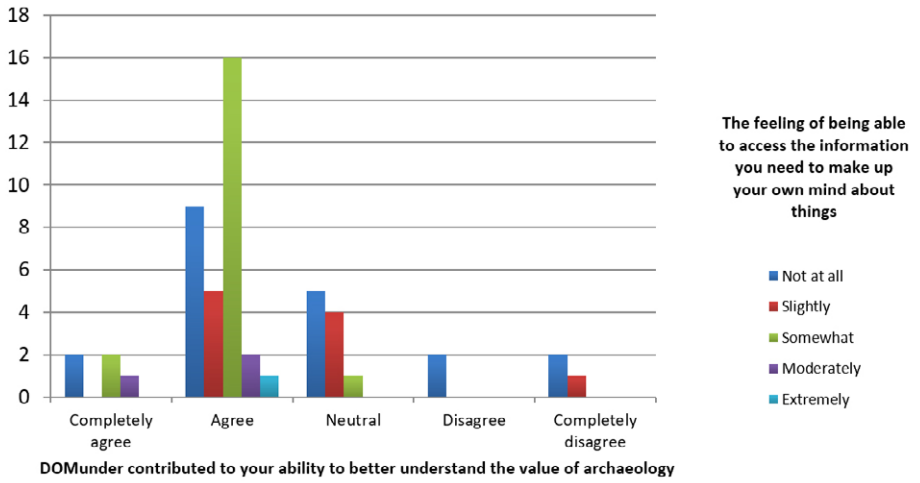


Figure 3.17: Relation between the scores for people's ability to access information and whether DOMunder contributed to people's ability to better understand the value of archaeology.

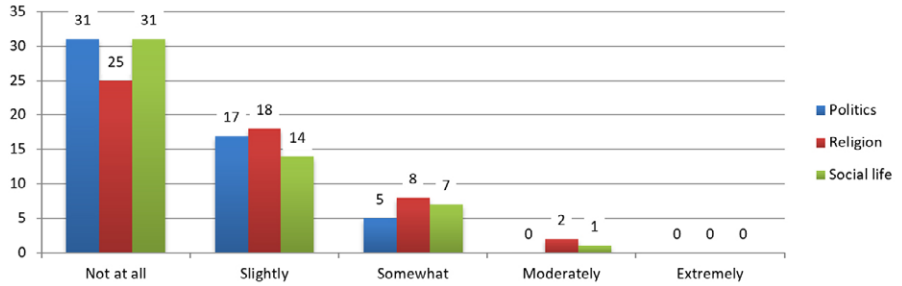


Figure 3.18: Absolute scores for the impact of DOMunder on people's views on politics, religion, and social aspects of life (n=53).

arguments, or views, in order for visitors to make up their own minds. Another reason could be that the link between archaeological information provided and these broader themes is not well enough elucidated.

3.5.1.6 Imagination and vision

During the tour of DOMunder visitors are able to see a real, in situ skeleton which probably belonged to the vicar of the diocese of Utrecht, Bertoldus Ponc (Initiatief Domplein 2013 2014, 13). Seeing a real skeleton potentially allows people to explore their values, meanings, and dreams – an action connected to the imagination and vision header in Matarasso's work, which could be interpreted as a 'symbol of the past' (Matarasso 1997, 74). For DOMunder specifically, derivative actions are to present DOMunder as an activity and to stimulate the senses, both relevant for this header, although arguably this header could also be included in the above community empowerment and self-determination section as the two concepts are intrinsically linked.

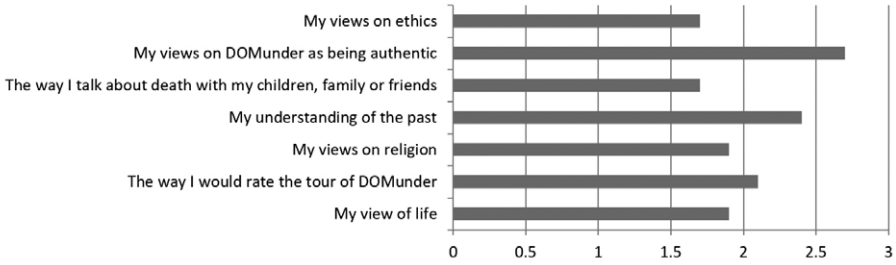


Figure 3.19: Average weighted scores for the sociocultural impact of seeing an actual skeleton during the DOMunder experience (n=53).

In total, 53 people responded to this question (81.5%). Average scores can be considered low to average, ranging from 1.69 for a change on Views on ethics to 2.70 for Viewing DOMunder as being authentic (figure 3.19). Note that three of these indicators, Views on religion, Views on life, and Understanding of the past, have already been touched upon previously.

Based on these averages we can conclude that seeing a skeleton has the biggest effect on perceiving DOMunder as being an authentic experience (2.7), possibly enhancing the overall experience. The accompanying narrative story, heard through the headset, probably accounts for the 2.4 score on understanding the past. People's views on ethics, life, religion, and the way people talk about death is not impacted upon much. It seems that, again, the experience is internalized but not so much connected to wider themes.

3.5.1.7 Health and well-being

The impact on Well-being (including health) forms an important part of this case study since it is a very appreciative, relevant, and current aspect of contemporary sociocultural impact analysis in cultural heritage. It forms part of several case studies (Maeer *et al.* 2016; Cultural Heritage Counts for Europe Consortium 2015; Ander *et al.* 2013; Rosemberg *et al.* 2010), and is under the attention of the European Union (Council of Europe 2014a).

The indicators studied here are somewhat different than those under the other headings. They are not so much focused on perceptions and visions, but rather on more emotional aspects. For DOMunder specifically, increasing a person's Well-being was not a goal; the only remotely connected aspect was the aim to support bicyclists and pedestrians, but this was set in a sustainability context rather than a health-focused one (Initiatief Domplein 2013 2008).

For this question, people were asked if their visit to DOMunder had an impact on nine different aspects of personal emotions, divided into seven positive emotions, such as happiness and usefulness, as well as two negative emotions: anxiety and stress (table 3.4). Both positive and negative emotions were chosen based on a personal visit to DOMunder, comparable case studies (Maeer *et al.* 2016; Rosemberg *et al.* 2010), and applicability. For each aspect, people were asked to indicate impact via a 5-point Likert-scale. In total, 52 persons responded, but two of those did not provide age details and as such were discarded, leaving the total number at 50 (77%).

		21-30 (n=7)	31-40 (n=3)	41-50 (n=7)	51-60 (n=15)	60+ (n=18)	Average
Positive emotions	Happy	2.4	4.0	2.0	2.2	2.3	2.6
	Useful	1.9	3.0	1.4	1.8	2.1	2.0
	Relaxed	2.1	3.3	1.7	2.3	2.3	2.3
	Capable	1.4	2.7	1.7	1.7	2.1	1.9
	Inspired	2.6	4.3	2.4	2.7	2.6	2.9
	Healthy	1.6	3.7	1.1	1.5	2.1	2.0
	Positive	2.1	4.0	1.9	2.3	2.4	2.6
	Average	2.0	3.6	1.8	2.1	2.3	2.3
Negative emotions	Stressed	1.0	1.3	1.3	1.3	1.5	1.3
	Anxious	1.3	1.0	1.1	1.2	1.5	1.2
	Average	1.1	1.2	1.2	1.2	1.5	1.3

Table 3.4: Weighted average scores for personal emotions per age category. Green shows the highest scores, red the lowest (reversed for the negative emotions) (n=50).

We see both relatively high and low scores compared to some of the other aspects discussed. A clear divide can also be seen when aspects are compared between age groups. For instance, 'Positive', 'Happy', and 'Inspiring' scored high for the age group 31-40 (4.0, 4.0 and 4.3 respectively), but low for the age group 41-50 (1.9, 2.0, and 2.4, respectively). The former age group scored highest overall (but note there were only 3 respondents in this age group), whereas the latter scored the lowest (except for 'Capable'). The two negative emotions, stress and anxiety, scored lowest on averages, as expected, with 1.3 for the former and 1.2 for the latter. Although DOMunder is considered an active experience (32 out of 50, 64%) people Agreed to this statement; 8 Strongly Agreed (16%), apparently, it is not perceived as one where they can also contribute: scores for feeling 'Useful' and 'Capable' were relatively low. Indeed, DOMunder visitors are not able to join any type of workshop or activity where they could actively learn skills or contribute to a discussion. DOMunder is in this sense a clear example of a 'classic' tour where visitors are free to look and learn, but are not involved in participatory activities which ask for skills and insight. The fact that 'Inspired' scored highest can be attributed to the fact that creating a visitor experience is the most important goal of DOMunder. Indeed, 83% of the 52 respondents felt that the tour was a real 'experience' for them.

Females were relatively happier after the visit than their male counterparts, scoring a 2.6 versus a 2.1 on average, respectively. From the results of the questionnaire however, we cannot conclude as to why this is the case.

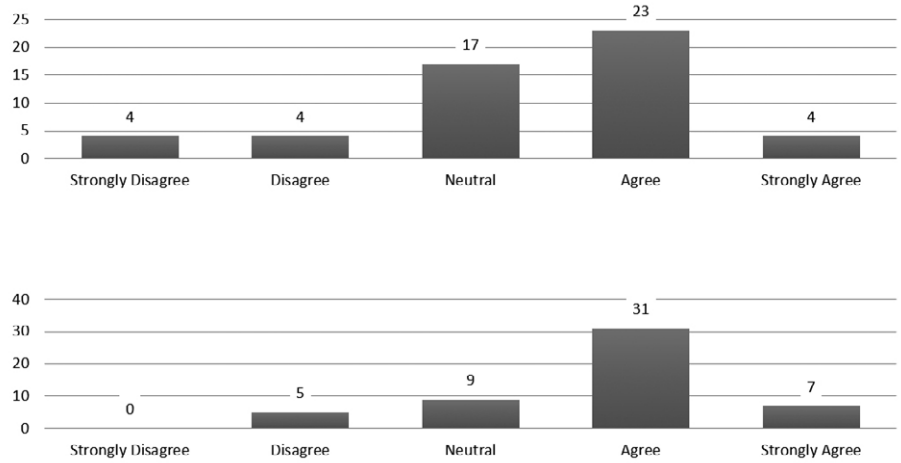


Figure 3.20: Top: Absolute scores for the statement 'My visit to DOMunder contributed to my energy level' (n=52). Bottom: Absolute scores for the statement 'After my visit to DOMunder, I felt a sense of accomplishment' (n=52).

When asked, 23 out of 52 (44.2%) respondents agreed that their visit to DOMunder contributed positively to their energy level; 4 Strongly Agreed (7.7%, figure 3.20). Together, only 8 people 'Completely Disagreed' and 'Disagreed' with this statement (15.4%), meaning that for most people the visit to DOMunder had a positive effect on their energy level. When the scores for the two positive levels, 'Agree' and 'Strongly Agree', are cumulated and compared to the total number of answers, we see that over half of the visitors felt more energetic after their visit to DOMunder. Although the duration of that increase in energy remains unclear, it is a substantial score and indicates that while this was not part of DOMunder's goals, for this aspect DOMunder does contribute to people's health and Well-being. Unfortunately, there is no statistically significant correlation between 'energy level' and 'active participation' (Spearman's rho test, p=0.139, n=52).

Most people felt a sense of accomplishment: 31 people 'Agreed' and 7 people 'Strongly Agreed' to the statement (figure 3.20). This means that for a large majority of people (73%) their visit to DOMunder was satisfactory enough to leave behind a sense of fulfilment. Exactly why, however, is not clear: no respondent provided a comment or annotation on this aspect.

The main *activity* goal of DOMunder is to create a visitor experience, which would hopefully lead to inspiration and learning. In total, 44 out of 53 respondents (83%) thought DOMunder provided an experience for them, describing that they liked the interactive way of presenting, the setting, and the archaeological remains. However, one respondent also indicated that "Impact implies activity" (Anonymous respondent, visitor questionnaire), and DOMunder did not provide that as such. All in all, it seems that visitors liked DOMunder and how it presents its contents; people are satisfied by it.

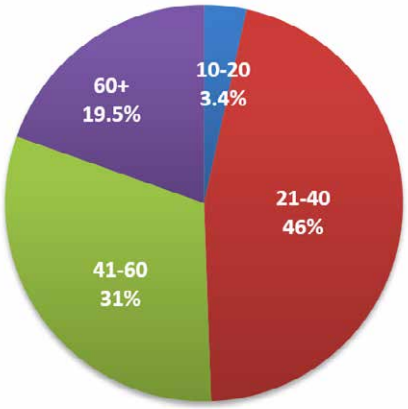


Figure 3.21: Age categories for the resident survey (n=87).

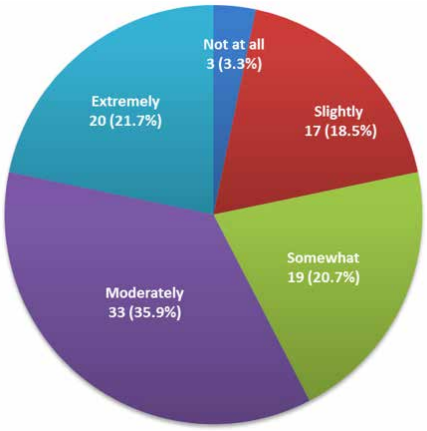


Figure 3.22: Scores for the question 'do you feel connected to your neighborhood?' (n=92).

3.5.2 Resident survey

This paragraph covers the analysis of the results for the resident survey. Just as for the visitor survey, results are delineated by numbers and graphs, their value remains explorative and should be used and interpreted in a tentative rather than decisive manner.

3.5.2.1 Demographics

For this questionnaire only one demographic aspect was covered: age categories. While other demographic aspects might seem relevant as well, such as gender, educational level, or income, we did not want to scare away interviewees and make the interviewers feel uncomfortable.

A total of 87 individuals responded to the questionnaire. The largest age group of respondents was 21-40 (n=40, 46%; figure 3.21). The second largest group was the age category of 41-60 with n=27, 31%. The youngest generation (10-20) was least present with n=3 (3.4%). The low count for this group is probably linked with the fact that the surveys were taken on weekdays between 10:00AM and 18:00PM, meaning that most children and young adults were at school or college. While this number seems rather low, when compared with the number of 10-20 year olds living in Utrecht in 2014, it seems quite accurate: 3.4% versus an estimated 2.2%, respectively (Intern Bedrijf Onderzoek, Gemeente Utrecht 2014, 9). People aged 21-60, who were expected to be at work or in college/university, were, on the other hand, firmly present.

3.5.2.2 Impact of living close to DOMunder

A benchmark question used to get an insight into the impact of DOMunder was how residents perceive their relation to the neighborhood; do they feel connected to the place and its residents? Connectedness to the neighborhood varied. The largest group scored 'Moderately' (n=33, 35.9%; figure 3.22). Almost the same number of respondents scored 'Extremely' (n=20, 21.7%) and 'Somewhat' (n=19, 20.7%). Only 3.3% of the people (n=3) indicated that they did not feel connected to their neighborhood at all.

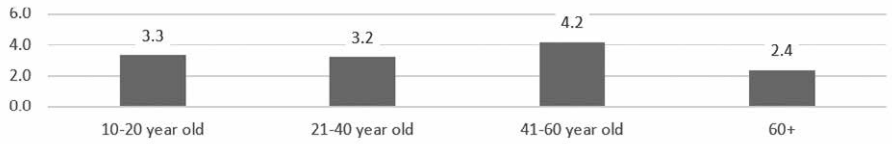


Figure 3.23: Age categories versus weighted averages of connectedness to the neighborhood (n=87, with n=3 for 10-20 years old, n=40 for 21-40 years old, n=27 for 41-60 years old, and n=17 for 60+).

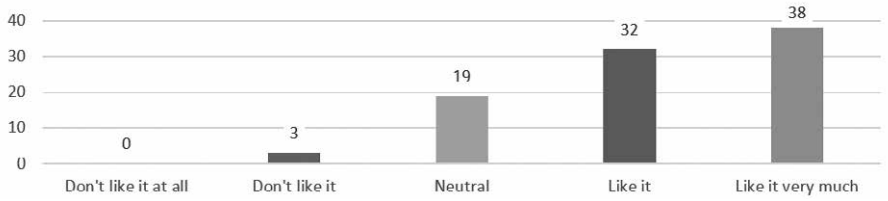


Figure 3.24: Absolute scores for respondent's opinion on living close to DOMunder (n=92).

These scores, when combined, result in a weighted average of 3.5. It is interesting to compare these numbers with those provided for 'social cohesion' by the municipality of Utrecht. They provide a number based on a score between 1-10, resulting in a score of 5.8 (Intern Bedrijf Onderzoek, Gemeente Utrecht 2014, 59). Because this case study uses a 5-point rating scale, we can compare ratings by doubling the score. This results in an average rating of 7.0, meaning that people living close to the DOMunder public archaeological attraction feel more connected to their neighborhood than the rest of the Utrecht residents. We cannot attribute this difference in score to the existence of DOMunder solely. Many people indicated that they live at this specific, historical place because of their interest in history, the monuments, and because they like the overall atmosphere.

When compared by age category, we see that the oldest category scored relatively low; a 2.4 compared to a 4.2 for the 41-60 age category (figure 3.23). While some respondents gave comments on why they like living here, this was not part of the survey and hence we do not know exactly why people do not feel that much connection to their neighborhood.

While the previous results give an insight into connectedness to the neighborhood, the next results focus more on the impact of DOMunder. The question asked was "What is your opinion on having such an archaeological attraction right next to your house?" (see appendix A2a and A2b). Respondents were given the option to score between 1 (Don't like it at all) and 5 (Like it very much). Analysis shows that people (n=92 in total) like living close to DOMunder, as 38 people (41.3%) indicate to 'Like it very much' (figure 3.24); 32 people (34.8%) 'Like it'. No respondent indicated 'Don't like it at all'. With three quarters of the residents liking the fact that they live close to DOMunder, it can be said that the distance to DOMunder does not impose a negative impact.

Important to note is that many of the respondents indicated that they like living close to monuments in general, and that they like living amongst tourists. Some of the

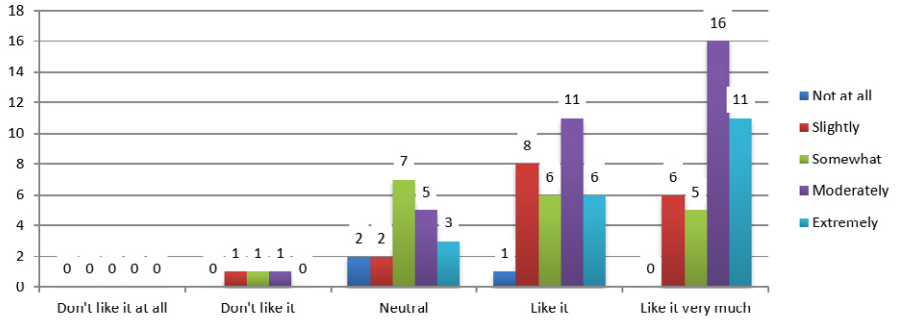


Figure 3.25: Cross comparison between the two previous issues discussed, connectedness to neighborhood and whether people like living close to DOMunder.

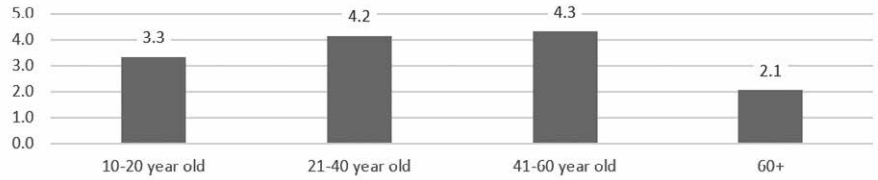


Figure 3.26: Weighted average scores for liking to live close to DOMunder for each age category (n=87, with n=3 for 10-20 year old, n=40 for 21-40 year old, n=27 for 41-60 year old, and n=17 for 60+).

residents lived in very secluded places within this historic center, for instance in courtyards or with the backs of their houses facing the numerous canals, where no tourist could walk. Indeed, residents living in these houses often indicated to like living there because of the quietness, but with the knowledge of, at the same time, living within the historic center of Utrecht.

When we compare these results with those for resident's connectedness to the neighborhood, we can observe a relation between the two: the people who feel strongly connected to their neighborhood were also the ones who liked to live next do DOMunder (figure 3.25).

We see that, on (weighted) average, the age group 41-60 scored highest with a 4.3, followed closely by the 21-40-year-old category scoring 4.2 (figure 3.26). The oldest age group of 60+ scored lowest with a weighted average of 2.1. Visiting DOMunder does not positively affect the result on liking to live close to it as the 60+ category, who had visited DOMunder the most (41.2%), scored lowest on liking to live close by while from the age category 21-40 only 15% had visited DOMunder. We have already seen that the oldest age category scored lowest on their connection to the neighbourhood; a relation between these two factors is quite likely. However, because of the low number of participants, using statistical tests to validate this hypothesis was not possible.

Of the 92 respondents, 55 (59.8%) indicated that they noticed an increase in tourists due to the existence of DOMunder (figure 3.27). Twenty-three (25%) reacted with

'I don't know', indicating that they are unable to see if visitor increase is solely due to DOMunder. Seventy-one (77.2%) of the respondents indicated that they did not feel the need to escape the tourists. Again, this could be due to the fact that some of the residents actually live in relatively quiet and secluded places.

Based on these numbers, it seems that most of the residents living close to DOMunder, while noticing an increase in visitors, do not have the urge to escape the additional commotion. This notion is strengthened by the fact that some of the respondents noted that they thought that tourists are a natural part of living in the historic part of Utrecht. For these residents, the impact of the existence of DOMunder can be considered positive: they don't mind having more tourists and overall like living in a historical environment. Moreover, 16.3% indicated that they would like to keep living in Utrecht specifically because of DOMunder. However, for a small percentage of the residents (18.5%) the increase of tourists, also due to DOMunder, did have a negative impact on their lives.

The residents were asked about their interest in archaeology of the Netherlands and Utrecht. On average, interest in Dutch archaeology scored lower than interest in archaeology from Utrecht: 3.4 versus 3.8, respectively (figure 3.28). A Wilcoxon Signed Ranks test with reveals a $Z=-4.445$ ($n=92$, $p<0.0001$), meaning that there is a significant difference.

When compared with the scores for visitor's connectedness to Utrecht and the Netherlands (figure 3.28), we clearly see a more local interest. From this comparison, it can be hypothesized that having a preferred and dedicated archaeological region of interest adds to the chance of that region scoring higher for connectedness and interest. Furthermore, it can be presumed that visitors coming to Utrecht to visit DOMunder, at least at that moment have preferred region of interest, resulting in a higher connectedness to that region after their visit.

Almost all interviewees (90.2%) had heard of DOMunder, but surprisingly, only 24 respondents (26.1%) said to have visited it. Most people (59 out of 71; 83%) were, though, planning for a DOMunder visit in the near future. Only 3 respondents (5.1%) were planning for a revisit. It is quite interesting to see that almost three quarters of the residents living close to DOMunder, while having heard of it, did not care for a visit. Some of the respondents made the same conclusion.

When people do visit DOMunder they rather do this with someone else (94.3%; figure 3.29). A visit with family members scored highest (37.2%), followed by a visit with friends (27.9%). Surprisingly, many residents indicated that they wanted to visit DOMunder with family and friends combined, which was not anticipated when designing the answer levels for the survey. However, since respondents were allowed to select multiple answers, and the result comprises 12% of the total responses, it was added as a new category in the analysis phase. Some of the respondents (17.4%) indicated that they wanted to visit DOMunder with someone other than friends or family – many mentioned visiting with co-workers, or club members.

Respondents were also asked about their reasons for visiting. Together with the results for the former questions, this creates a good idea of the values people attach to a visit to such an archaeological activity. We gave respondents the opportunity to answer this question in their own words as to not steer them in their answers. Resulting answers were grouped together in five categories:

- General interest in archaeology and history;
- Curiosity about the attraction, not so much about the archaeology itself but more about how it looks and what the creative result is (some people watched the attraction being made and/or watched the accompanying archaeological digs);
- Obligation; people live close-by and feel some sort of social obligation to visit. They want to know what is happening in their neighbourhood;
- Social reasons; they visited DOMunder with others or want to visit with others as a social event;
- For fun.

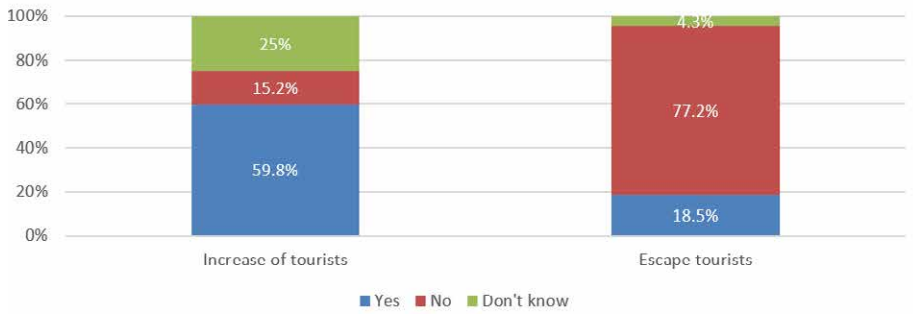


Figure 3.27: Relative scores for residents' perception of tourist increase due to DOMunder and if they feel the need to escape those tourists sometimes (n=92).

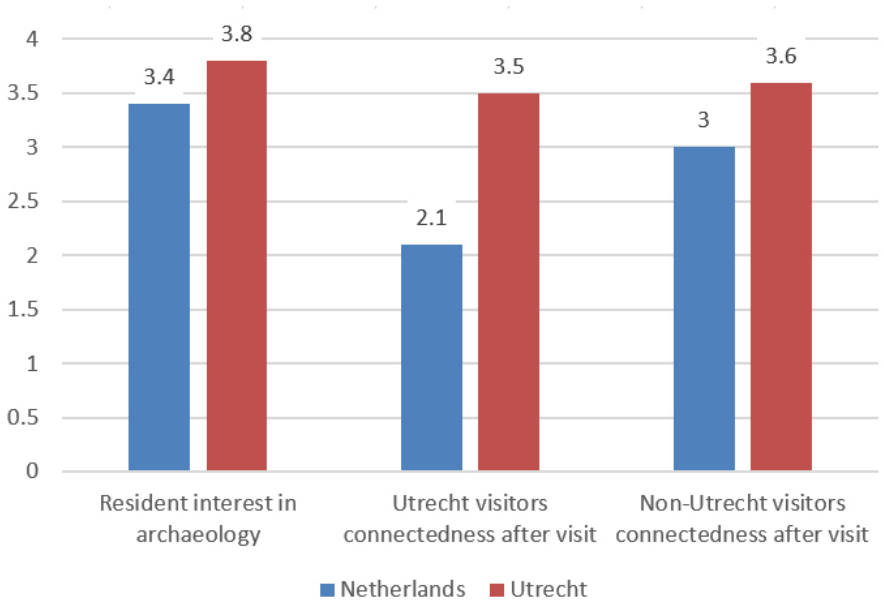


Figure 3.28: Comparison between interest in Dutch and Utrecht archaeology by residents, local visitors, and non-local visitors.

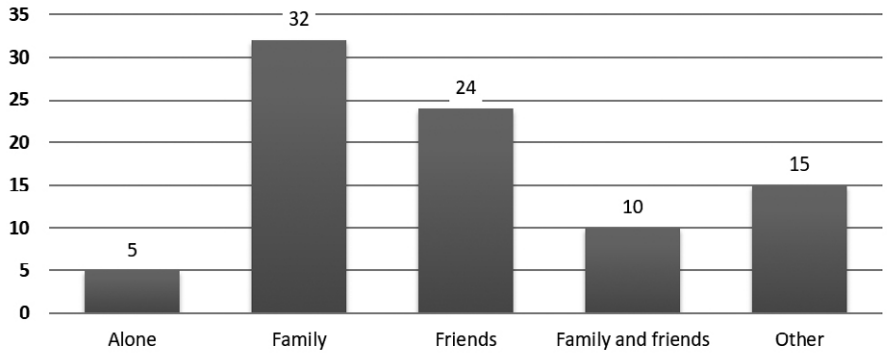


Figure 3.30: Reasons for having visited, or wanting to visit DOMunder (n=87). Numbers are absolute.

The largest group of people who visited, or would want to visit, DOMunder indicated to have (had) educational purposes (34 out of 87, 39.1%; figure 3.30). Curiosity scored second, with a total count of 20 persons (23%). Some visited or wanted to visit DOMunder because they feel some sort of obligation (19.5%) and feel more or less obliged to do so; 16 persons (18.4%) indicated that their visit was (or would be) for social reasons, which includes 5 respondents (6.9%) who indicated that they did or wanted to visit DOMunder specifically for fun.

Slightly more than half of the respondents (45 out of 88, 51.5%) indicated that a visit to DOMunder would have social value for them, a low score compared with the knowledge that 94% of the respondents want to visit with someone else. A large number of the respondents (35.2%) indicated that their visit would maybe have a social value, probably because they were not sure what social value means or because they did not know what to expect of their visit yet. Only 12 (13.6%) indicated that a visit to DOMunder would not have any social value for them, and they often added that their visit would only have an educational or historical value. Apparently, there is a difference between visiting with someone as company or visiting for having company. Furthermore, various respondents indicated that talking about DOMunder and sharing opinions on archaeology with others after their visit contributed to social value, not so much the visit itself.

When the results from the previous two aspects are compared, we see that most of the respondents who did see a social value for visiting DOMunder, did not indicate this to be a primary reason for visiting (figure 3.31). Of course, we have to take into account that peoples' interest in history and/or archaeology scored highest across the board, but this cross-check nonetheless provides a curious insight in that it proves that while people indeed (mostly) think that visiting DOMunder has or could have a social value, it is not their primary reason for visiting.

3.5.2.3 Sociocultural role of the Domplein Square compared to DOMunder

The association respondents have with the Domplein Square gives an insight into its perceived sociocultural role. There are several things to do at the square, including visit-

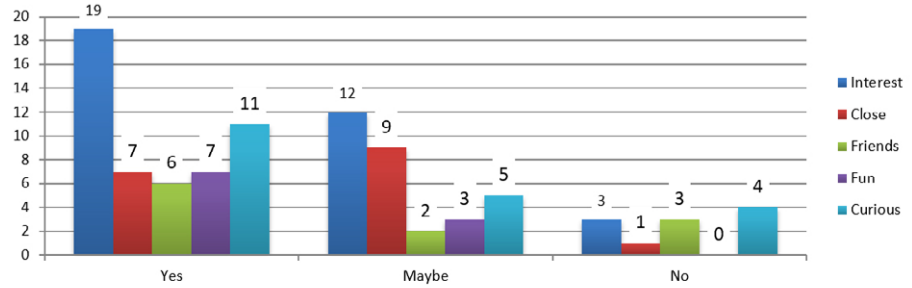


Figure 3.31: Comparison between the results for the reasons for visiting and whether visiting DOMunder has a social value (n=92).

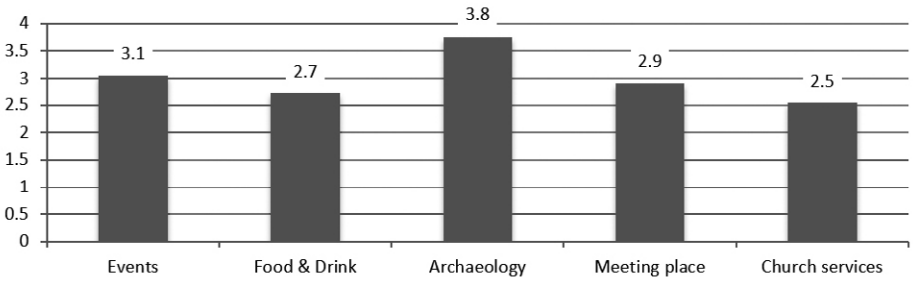


Figure 3.32: Weighted averages of respondents' association with the Domplein Square (n=92).

ing church services, seeing the local archaeology at DOMunder, meeting up with other people, attending events, and visiting the local restaurants for some food or drink. Respondents associated the Domplein square the most with archaeology, scoring a 3.8 on average (figure 3.32).

The fact that people associated the Domplein Square most with archaeology could be ascribed to the fact that we kept this question as the last one in the survey. This means that after answering various questions about archaeology, their answers to this question could be somewhat biased. In hind-sight it would have been better to start with this question. While taking this aspect into account, we clearly see that people associate with archaeology the most, followed by events (3.1), which are becoming more present each year and are promoted more and more professionally. This rather high score could be caused by the fact that at the moment of writing the Grand Depart, the first stage of the Tour the France, was hosted in Utrecht and the cyclers' route runs underneath the Dom Tower. It is quite interesting to see 'meeting place' as third highest score (2.9) on the average list, because many people indicated that they did not really see the square as a meeting point for friends. However, some of them explained that they saw it as a meeting point for tourists who start their tour there. Perhaps this association has also to do with the city branding of the Domplein Square to be the central, historical interest point of Utrecht.

In general, people feel that the Domplein square is quite unpleasant, windy and with many dark places; not at all welcoming. Many residents living close the Square therefore do not see it as a suitable place for leisure purposes. They also do not think

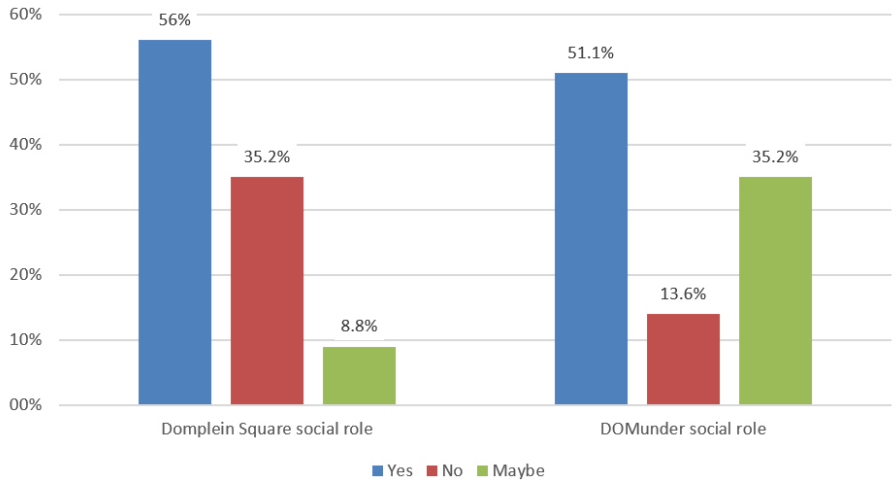


Figure 3.33: Relative comparison between the Domplein Square and DOMunder social roles (n=91 for Domplein Square social role, n=88 for DOMunder social role. Y-axis represents the relative scores, x-axis the two categories.

that the square could play a significant role as a meeting place, as other places are already well-known and suited to that purpose, such as the Central Station and the Neude. While not included in the survey as answers, these personal face-to-face annotations provide valuable insight and contribute to our understanding of the following scores. Only a slight majority of 51 (56%; figure 3.33) sees a social role for the Domplein Square, in spite of all the efforts from Initiatief Domplein and other parties to revitalize it as a social and central place; 32 (35.2%) thought that the square did not play any social role and 8 (8.8%) did not really know. While the positive score is comparable with scores on the social role of DOMunder (56% versus 51.1%, respectively), more respondents indicated to see a potential social role for DOMunder.

3.5.3 Volunteer survey

This sub-section covers the analysis of the results for the volunteer survey. The main aim of the survey was to get a better understanding of the sociocultural impact on volunteers working at DOMunder. In general, people working as volunteer do this for a variety of reasons, such as to increase skills, to feel useful, and to meet new people (Karl *et al.* 2008). A very probable reason for working as a volunteer at DOMunder is a shared interest in the history and archaeology of Utrecht, but these are probably not the only reasons. In that sense, volunteers might share a different connection with DOMunder than the previous two stakeholders. This means that DOMunder's' socio-cultural impact might be different as well. To verify this hypothesis, next to recurring questions, such as the impact on personal traits and meeting new people, questions about time investment and reasons for joining have been included, too.

3.5.3.1 Demographics

The majority of volunteers is male (22 males, 66.7% of total (n=33); figure 3.34). This is different than the general numbers for volunteering in the Netherlands which show

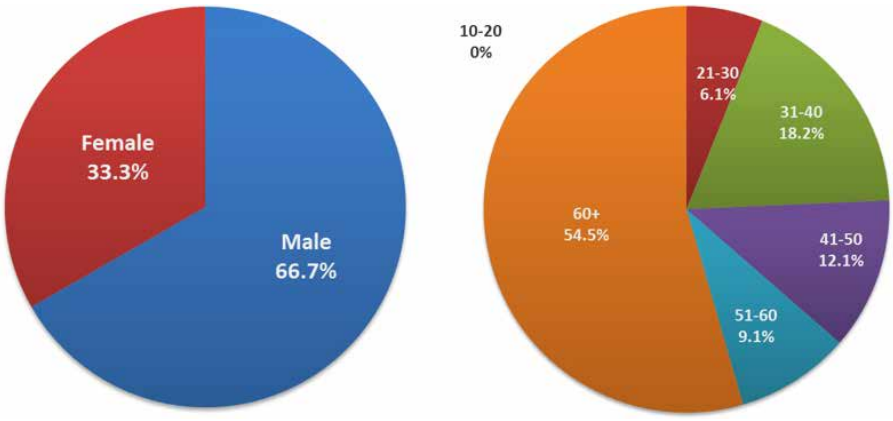


Figure 3.34: Left: Gender balance (n=33). Right: Age categories (n=33).

an almost even distribution (Centraal Bureau voor de Statistiek 2015). Most of the volunteers are aged 60+ (54.5%). In the Netherlands, people aged between 35 to 45 are most active as volunteer in schools, but volunteers aged 55+ are most active in religious and cultural institutions (Centraal Bureau voor de Statistiek 2015). Furthermore, studies show that there is no causality between retirement (65+ in the Netherlands) and an increase in the number of volunteers, but people who retire and already do volunteer work do spent more hours (Caro and Bass 1997; Wilson 2000). People with paying jobs are more often volunteer than those without (Centraal Bureau voor de Statistiek 2015). Together with the facts described above, the relatively large group of people aged 31-40 (18.2%) seems to fit the general profile of Dutch volunteers.

3.5.3.2 Investment

Shown in figure 3.35, the largest group of volunteers were working at DOMunder for longer than a year (30.3%), which means they have been working there since the launch of DOMunder (June 2nd 2014). The second largest group is the group working at DOMunder between 7 months and a year (27.3%), followed by the group working between 4 and 6 months (24.2%).

The largest group of volunteers (33.3%) spends between 11 and 15 hours per month working for DOMunder (figure 3.35), which translates into about 8 to 13 tours. This is in line with general numbers for the Netherlands, which show that volunteers spend, on average, 4 hours per week (Centraal Bureau voor de Statistiek 2015). However, the general numbers also show that most volunteers spent less than one hour per week (Centraal Bureau voor de Statistiek 2015). As most of the DOMunder volunteers indicate that they work more than 10 hours per month (87.9%), this means that time spent per volunteer is relatively high, which is telling for people's motivation and dedication.

For most of the volunteers (84.8%; figure 3.36) the work they are doing has no connection to their previous or current jobs; only 12.1%, on accumulation, has a job which is comparable.

Many volunteers have a paid job (39.4%), 24.2% does not have a job currently and another 24.2% is retired; 12.1% belongs to the 'other' category. Through personal

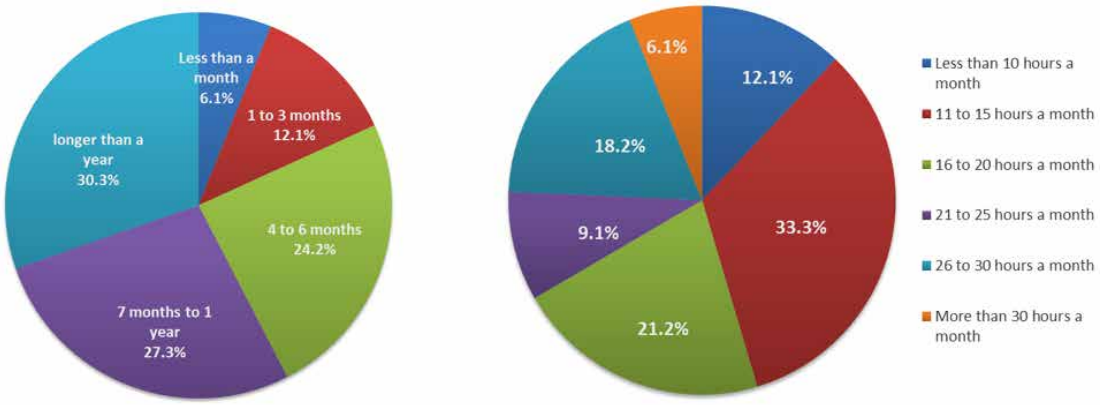


Figure 3.35: Left figure: Time involved as volunteer at DOMunder (n=33). Right figure: Time investment per month (n=33).

comments, people indicate to have filled out the latter category because they, for instance, have a paid job, but are at the moment exempt from work. Others indicate to be unfit for doing any work at the moment. If we include the numbers for 'retired' and 'other' into the category of 'no paid job', we see that 60.5% of the DOMunder volunteers does not have a current paid job. This is more than the national figures, which show that 44% of the non-paid and 53% of the paid Dutch population does volunteer work (Centraal Bureau voor de Statistiek 2015). Interestingly, no one indicated to study next to doing volunteer work for DOMunder, while we know from personal communication that there are students active as volunteer. Apart from them not filling out this questionnaire, the reason could be that students in the Netherlands often have side jobs next to their study.

A striking 78.1% indicates to have achieved the highest education level (HBO/WO, which roughly translates to tertiary education) in the Netherlands. While this is also true in general for the Netherlands, these numbers seem to be higher than average (Centraal Bureau voor de Statistiek 2015).

Overall, it seems that the average DOMunder volunteer scores above average for age, time investment, and education level. Instead of volunteers, these figures represent better the average visitor of cultural and archaeological exhibitions and activities in the Netherlands.

We can clearly see that people working at DOMunder as volunteer are not obliged to work there as only 4 out of 31 respondents (13%) found that important – scoring 1.1 on weighted average (figure 3.37). On the other side of the scale, we find respondents' interest in the history of Utrecht (3.9) as the main reason. This score is even higher than their interest for Dutch archaeology (3.4), emphasizing, again, the importance of a local setting and focus. Interestingly, people indicate to find working with other people rather important as well (scoring a 3.7).

It is interesting to see that the oldest age category scored quite low, both on average (16.1 for all categories, versus 21 for 51-60, 19.8 for 41-50, 23.5 for 31-40 and 22.5 for 21-30) and across the board compared to the other ages (figure 3.38). It seems that there is a large difference in reasons, or perhaps even enthusiasm, for

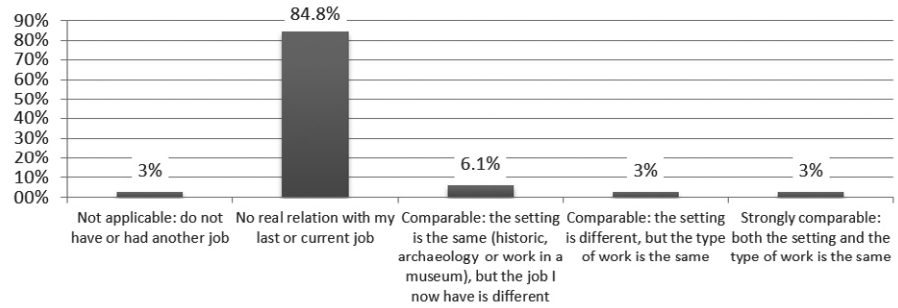


Figure 3.36: Relation between DOMunder and current or previous job (n=33).

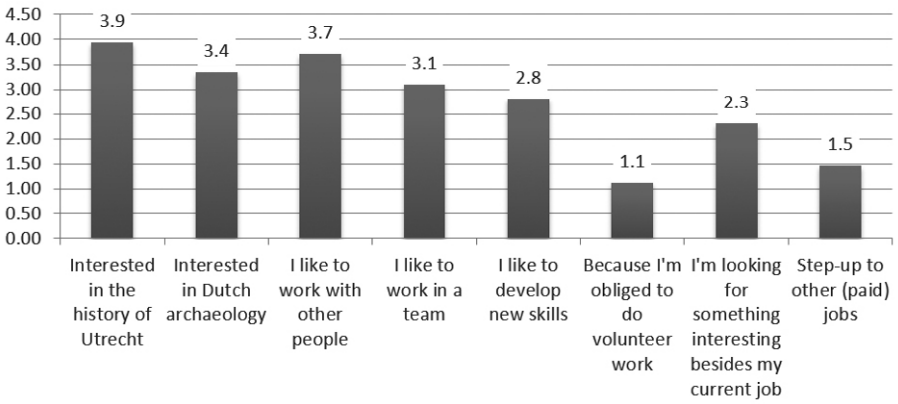


Figure 3.37: Weighted average scores of respondents' reasons for doing volunteer work (n=31).

the respondents to work as volunteer. Exactly why the older people are working as volunteer can't be concluded from these results, but it seems that working with other people and skill development are their main motivations. Interestingly, the youngest generation sees their volunteer work as being important for their future careers but not for skill development.

The general interest in working with heritage and archaeology as the strongest motivator to do volunteer work in this sector is something we also see in the United Kingdom (Rosemberg *et al.* 2010). However, the strong motive to work together and meet new people, noticed for DOMunder, is not something seen in the United Kingdom, where volunteers find these factors even less important than updating their skills (Rosemberg *et al.* 2010).

3.5.3.3 Impact

Working as a volunteer at DOMunder improves people's skillset, which is useful for doing that work, but also useful in other aspects of daily life, including for a job next to doing volunteer work, or for future jobs. The skills included in the survey were chosen based on the type of volunteer work and probable skill development occurrence, in consultation with Eline Amsing. According to the weighted averages (figure 3.39), communication skills are developed the most (2.8), followed by interpersonal com-

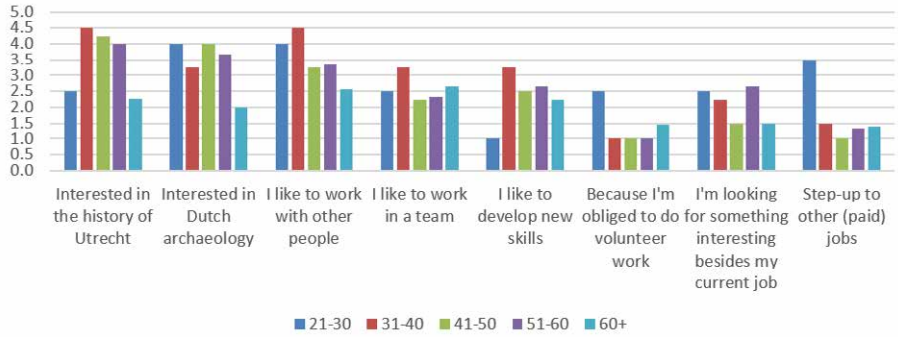


Figure 3.38: Weighted average scores of respondents' reasons for doing volunteer work versus their age categories (n=31).

munication skills (2.5), which covers people developing leadership, teamwork, and self-secureness when speaking for large groups. Clearly, company- and management skills and technical skills were the skills least affected by working as a volunteer for DOMunder. While volunteers also have to perform solitary work, such as working behind computers to put in data, or perform research, this only counts for a small part of their activities; as tour guides, most workload is geared towards interpersonal communication. Whereas visiting DOMunder seems to be a more solitary experience, DOMunder provides a social platform for its volunteers.

Personal attributes and emotions

The next results show a clear connection between doing volunteer work for DOMunder and the impact on respondent's personal attributes and emotions. They indicate that people get happy from working as a volunteer for DOMunder (scoring a 3.7 on weighted average, figure 3.40), but also that it increases their overall satisfaction (3.4). Respondents also feel more motivated (2.9), creative (2.7), and feel an increase in their self-confidence (2.8). These results also show that the impact on personal traits is higher than impact on skill development. Across the board, these scores are some of the highest recorded. This indicates that DOMunder provides a suitable place for people who are looking for working with history, archaeology, and people. As such, DOMunder has a positive impact on people's lives.

When the scores for personal traits and emotions of volunteers are compared to those for the visitors, we see volunteers scoring higher on each aspect studied. Most notably, happiness is scored higher with a 1.3 difference (figure 3.41). The relation between volunteer work and happiness knows a number of theories. For instance, volunteers are part of a social network and the Social network hypothesis argues that these are powerful forecasters of happiness and health (Layard 2005; Marmot 2004). The Social role hypothesis argues that volunteers are valued by society and as such people engaging in this activity feel useful, resulting in a higher reported happiness and Well-being (Musick and Wilson 2003). Finally, it has been argued that the financial nature of volunteer work, unpaid, with intrinsic and non-monetary motives, results in volunteers being less stressed about income and social status which leads to greater happiness (Borgonovi 2008). It has also been shown that interacting with culture results in a higher psychological Well-being

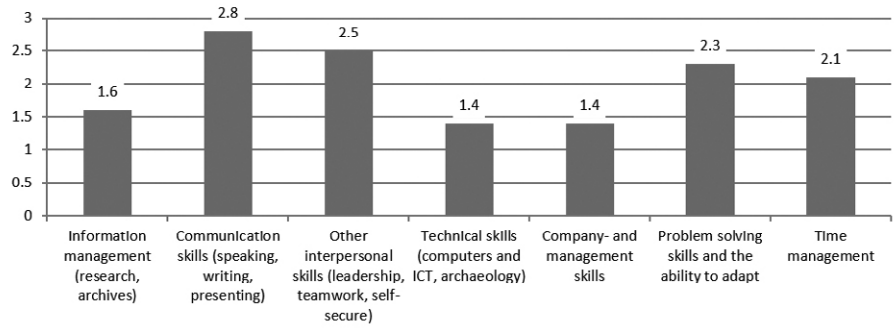


Figure 3.39: Weighted average scores on skill development (n=32). Y-axis represents the weighted average, x-axis the answer categories.

Figure 3.40: Weighted average scores of impact on personal attributes (n=32).

(Grossi *et al.* 2011; Fujiwara 2013). This does not, however, explain the difference between the volunteers' and visitors' happiness scores. A fitting argument comes from Blessi *et al.*, who argue that cultural participation focused on social interaction has a higher impact on Well-being than activities focused on non-social interaction (2014). They cannot, however, yet confirm whether interest in culture or a drive to connect and work with others is the main cause for this effect (Blessi *et al.* 2014). Nonetheless, figures from this case study confirm Blessi *et al.'s* observation, in that working as volunteer, with an aim to work with others, impacts psychological Well-being more heavily than merely a visit to DOMunder, which has a more individual focus.

When attributes and emotions are combined and compared with duration of involvement, we see an interesting pattern occur (figure 3.42): a higher weighted average score is seen for those working at DOMunder for only a short amount of time (less than a month; 3.9) and this score declines up until the second to last category (people working at DOMunder for longer than a year; 2.9). Exactly why this pattern occurs cannot be explained on the basis of these data. It could be that volunteers who just started working at DOMunder are more susceptible to new experiences, which have a bigger perceived impact on them.

Cross-comparison between personal attributes and time investment shows no trend: weighted average numbers are fluctuating in a seemingly random order. However, we

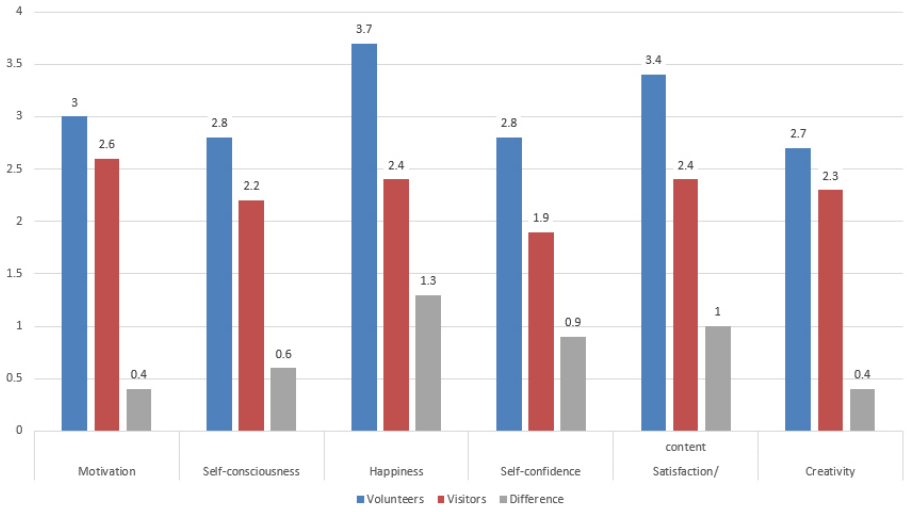


Figure 3.41: Weighted average scores for personal traits for volunteers (blue) and visitors (red) (n=32 for volunteers, n=57 for visitors). Difference in grey.

do see that younger people indicated to experience more impact than their older colleagues (figure 3.43). This result supports our hypothesis that less 'experienced' volunteers perceive the highest impact.

Social psychology literature has shown that interpersonal contact is a key determinant for Subjective Well-being (Blessi *et al.* 2014); *relatedness* is a basic human need which needs to be fulfilled in order to achieve a better well-being (Deci and Ryan 2001). For the volunteers of DOMunder, working as hosts supposedly means meeting lots of people. As this seems to be one of the main reasons for doing volunteer work, and as such is a driver for Well-being impact, it is important to know the extent of this. Three categories for meeting 'new people' were made: 1) other volunteers, 2) visitors, and 3) other people. According to the results, all volunteers have met other volunteers and some of them have met quite a number of visitors as well (46.9%; figure 3.44). However, many volunteers also indicated that they did not meet any new visitors or others. This means that the amount of people volunteers meet varies greatly per person.

In order to understand the extent of the impact on interpersonal contact, respondents were asked if they still have contact with people they met as well as to indicate the amount of time they speak to these people outside of work. According to the results, 20 respondents (62.5%) still keep contact with people they had met, albeit that most respondents (18 out of 20, 90%) only spend 1 to 2 hours a week on this.

3.6 Wrapping up results

3.6.1 Research goals

The research conducted for this case study was based on several research goals which were explained in the beginning of this chapter; an overarching research goal, spanning not only the DOMunder case study, but also the You(R) Archaeology (chapter four)

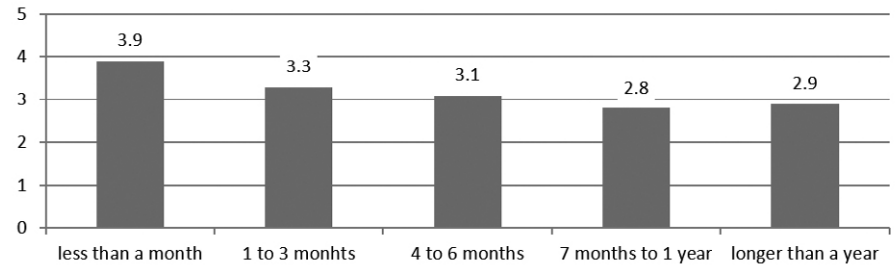


Figure 3.42: Weighted averages of volunteers' personal attributes relative to the amount of time working as volunteer at DOMunder (n=32).

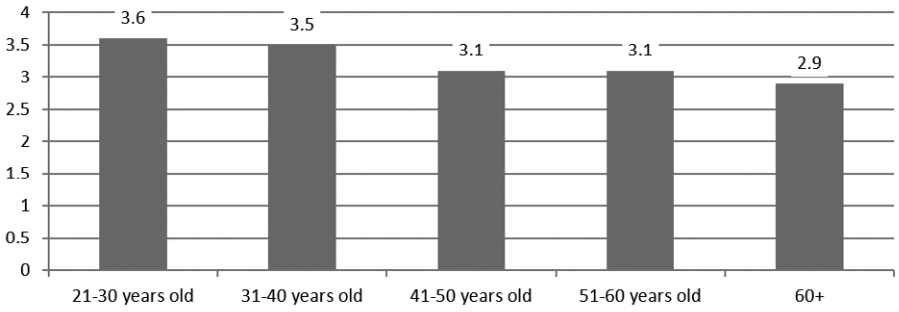


Figure 3.43: Weighted averages for personal attributes versus their age categories (n=31). Y-axis represents the weighted average score, x-axis the age categories.

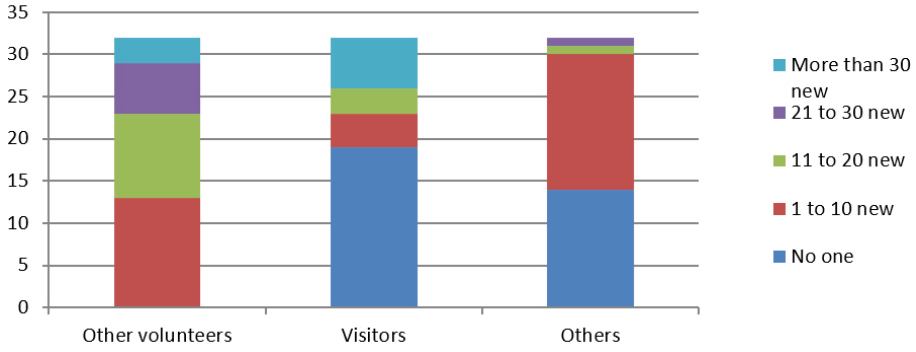


Figure 3.44: Volunteer results for meeting other people (n=32).

and the Invisible Monuments case study (chapter five), and research goals created specifically for this case study.

The overarching research goal is to create a commensurable and comparable set of quantitative data from the three case studies. As this case study is the first out of three, in order of appearance in this thesis, but also, more importantly, first in order of conduct, it formed a pilot study, aimed to, above all, understand and appreciate the conduct of such a specific type of research. This was also the first research goal unique

for this case study. As there were only a few comparable case studies available at the start of this research – none within the Netherlands – and because each archaeological activity is inherently different, the creational process, based on careful considerations, including desk research on theory and methodology as well as feedback from various peers, both from scholars as well as from DOMunder, was just as important as the final dataset and its analysis.

Several issues came to the fore during the creation of the surveys as well as during its execution. The first is the fact that creating three sets of unique questionnaires with overarching, as well as specific themes and questions, was quite difficult. While there were some examples available, most of the answers and categories were invented specifically for DOMunder, based on research as well as activity goals, but also based on general applicability, or in other words: 'to see what works and how it is perceived'. Especially in relation to the subject of history and archaeology, asking questions about sociocultural impact sometimes seemed a bit farfetched. Connecting research goals with the activity goals was difficult and sometimes not possible at all, as the two were situated too far apart, resulting in the addition of questions and answers which, on the face of it, did not have any connection with DOMunder in particular nor archaeology in general. This is also something that, the visitors of DOMunder specifically noted. One interviewee for instance, wrote "I found the questions multi-interpretable and often did not understand what DOMunder had to do with the question. The link is a bit of a stretch" [Anonymous respondent, visitor survey, translated from Dutch]. Another wrote "why so many questions about self-esteem and feelings?" [Anonymous respondent, visitor survey, translated from Dutch]. However, one person also commented "Interesting to see the questions going a bit further than just fun and not fun and make you wonder about the quality of an experience as this one" [Anonymous respondent, visitor survey, translated from Dutch]. These reactions can be attributed to the fact that many of the questions were not evidently, or not at all, connected to the goals of DOMunder, its setting and image. This made people wonder what the questionnaire was actually about. Even while it was explained to them in an introductory text that the survey was about sociocultural impact, most visitor respondents probably expected more questions about archaeology. A second issue was found in the creation of answer categories, sometimes in the form of Likert scales ranging from 'Not at all' to 'Extremely', meaning there was no neutral answer in that scale, or from 'Strongly disagree to 'Strongly agree' for questions asked as statements. This was done in order to see what worked best in final analyses and quantification of the results. While the latter was scaled in a 'positive' way, the former, while also based on a Likert scale, had a scale with one 'negative' result (Not at all), while the others all indicate a positive result (Slightly, Somewhat, Moderately and Exactly). While in itself not problematic, it is important to keep this in mind when interpreting results. In hindsight, it would probably have been better to scale the answers in a similar fashion as the statement to avoid skewing. Thirdly, as is well known in sociological research based on questionnaires, it is notoriously difficult to get people to respond to an online survey, resulting in a high non-response rate (De Leeuw 2012). The same occurred for the online visitor survey. Many more people were invited than actually participated (65 out of 206, resulting in a 31,6% response rate, and a 68,4% non-response rate), which meant that the results are not representative for the total population. This is, in itself, not a problem, as it just

means that results are indicative rather than definite, but together with the fact that for some respondents quite a lag was noted between their visit and survey participation, which one respondent even commented on, it would have been better to perform an onsite survey, for instance right after people's visit.

Some of this feedback was implemented in the creation of the surveys for the other two case studies, for instance to create questions better fitting the activity or use 'statement' Likert scales. However, some questions and answers were copy-pasted without alteration as to support continuity and compatibility.

The analysis of the surveys did give an insight into the impact of DOMunder for the three individual groups active therein, which means that the second unique research goals is achieved. Ultimately, there is quite a difference between contents and results of the surveys, especially between visitors and residents and volunteers and residents. This has to do with the fact that the residents are a particular type of stakeholder in that they are not actively involved in DOMunder but rather passively undergo its impact, most often even via a proxy such as tourists.

However, keeping these issues in mind, because of the explorative nature of this research, it did provide valuable insight into the sociocultural impact of DOMunder on its stakeholders, both in the extent or reach of the impact as well as its level. We can argue that the sociocultural impact varies per stakeholder, but overall it seems that DOMunder generates a moderate amount of impact on its stakeholders. We do not know whether this impact is based on intrinsic or extrinsic factors, or in other words, whether it is based on the quality and experience of the activity, and whether or not this resonates with people's expectations, or peoples internal processing of this impact, how they perceive and valuate its effect. We see that a local focus is important in generating impact, as both visitors and residents seem to be more interested in the archaeology and history of Utrecht than that of the Netherlands, and are more connected to the former. Perhaps more importantly, however, is the conclusion that the reasons for people's involvement in the activity, combined with their expectations and perspectives, seem to be leading in generating a higher impact. Visitors are mostly impacted in their education, involvement, inspiration, and motivation, and as a result are more connected to the region's archaeology and are more able to value its importance. This is especially true for people aged between 31-40, who are impacted considerably more across the board than the younger and older groups. They even scored a 4.0 on weighted average for being happy and inspired, higher than the impact on understanding of the past (3.0) and motivation (2.7). Unfortunately, we do not know the causal relation between the two factors, or in other words, whether impact on happiness generates higher scores for understanding of the past, or whether an impact in understanding of the past generates a higher level of happiness. Overall, visitors are less impacted on for social aspects, including personal attributes, and find it strange when they are asked about them. Apparently, according to them, an archaeological activity such as DOMunder is not a place where people can work on their self-confidence (1.9 on weighted average), self-consciousness (2.2), or meet new people. This is different for the volunteers, who seem to be much more impacted on for these issues (2.8 on self-confidence, 2.8 on self-consciousness). Volunteers are also more motivated, happy, and satisfied than the visitors, especially those who are new and younger. For them, working at DOMunder is a conduit to satisfy their needs for working with archaeolog-

ical remains in a historical context, but also for their wishes to work with other people and to develop personal skills. Perhaps it is due to their initial motivations that they are impacted upon more strongly than the DOMunder visitors; they are more susceptible to this kind of sociocultural impact. For them, DOMunder provides a different set of tools. When asked, residents living close to DOMunder have visited, or want to visit, DOMunder mainly because of their interest in the history of Utrecht. However, if they do, they would rather visit with someone else than alone. Because they are not actively involved with DOMunder, it was difficult to gauge DOMunder's impact on them. It seems that overall DOMunder generates a positive impact as people like living next to DOMunder and some even indicated to live there because of it.

3.6.2 Activity goals

Next to the research goals, impact is also analysed based on the goals of the organizer, the activity goals. These goals were described in various papers provided by Foundation DOMplein 2013, and can be distilled into a goal with a small scope, to present DOMunder, in cohesion with the Domplein square, to the audience. To increase visitors, DOMunder is presented and positioned as a real 'visitor experience' and has a large scope, which is to make visible the history of the Domplein square and position it as a cultural 'oldspot' in a sustainable manner.

We can conclude that DOMunder has achieved both goals. For the former, we see that the majority of visitors sees DOMunder as an experience (83%), and feels that they have actively contributed (64%). Perhaps as a result of this, they feel inspired and motivated, and indicate that they have learned new things.

The above leads to the argument that DOMunder improves people's ability to better understand the value of archaeology, including its many historical and archaeological layers and themes. This is linked to the second *activity* goal which has a broader scope. Indeed, even the residents living close to DOMunder see that it provides cultural value. Many connect the Domplein Square primarily with cultural and historical remains and indicate to actually want to live there because of it.

While DOMunder is successful in the achievement of its goals, it seems that it still has the potential to both broaden and deepen the sociocultural impact for all three stakeholders.

4

Case study: You(R) Archaeology

4.1 Introduction

This chapter describes the second of the three case studies. It is quite similar in terms of structure and content, and although the outcomes are different, this case study too describes a unique public activity in archaeology. As in the other two chapters, data derived from the survey is used for analysis reflecting on both the goals of the project itself – the activity goals, set by the You(R) Archaeology contest initiators – as well as the research goals of this thesis, focussing on specific research questions. The research goals will be discussed right after this introduction; activity goals will be discussed within the methodology sub-section.

The data gathered for this case study comes from a public participatory project, specifically a European contest which combines art and archaeology. As described in the DOMunder chapter, it is important to understand the unique context and goals of a project because this allows for a better understanding of the applied methodology, which is in turn necessary for holistic data interpretation. As such, the research goals will be discussed first (section 4.2), followed by a description of the context of the You(R) Archaeology contest (section 4.3), the creation of the survey (sub section 4.4), and the analysis and discussion of data (section 4.5).

4.2 Research goals for this case study

This case study is built on six research goals. The first research goal was to create a case study similar to the others in terms of methodology and congregated data because this would allow for the creation of commensurable dataset, which, as described in the methodological section of chapter two, would be more beneficial for this research than the alternative, a dataset comprised of three incomparable case studies. This is the reason why this overarching goal was also part of the DOMunder and Invisible Monuments case studies. The second research goal was to gain a more in-depth view of people's perception of archaeology and what it means to them. This was also the overall *activity* goal of the contest (see section 4.4). The third research goal is closely connected to the former and was to see whether an artistic contest built on an archaeological theme could create sociocultural impact and whether this impact is then the result of the nature of the activity, its contents, or a combination of both. Fourthly, a research goals was set to gain specific insight into the archaeological connectedness between people and a geographic area and what variables are influencing this connection. The

fifth research goal was to see whether differences could be identified in the answers of the amateur artists and professional artists, who were both allowed to participate in this contest. Lastly, the sixth research goal was to see whether there is a connection between an increase of archaeological knowledge and the 'fun' of participating in an art contest.

4.3 About the You(R) Archaeology contest

The You(R) Archaeology contest is part of one of six themes within the European NEARCH programme. Housed under theme A, 'Archaeology for the community: informing and involving people', the contest was titled 'Collecting and displaying people's representations about 'their' archaeological heritage' within the NEARCH programme description (NEARCH 2013), but for communication and marketing purposes it received the 'You(R) Archaeology – portraying your past' handle. As part of the broader NEARCH goal to understand the relation between (local) communities and archaeology, specifically in finding new ways to interact with them through informing and involving, this "European and international call for projects will invite the various target audiences to observe, consider and highlight, through photography, video, drawing or writing, their relationship with archaeological heritage, be it at a local level or abroad" (NEARCH 2013). The competition was aimed at "illustrating people's views, sensations, interactions towards archaeological heritage and archaeology, encouraging to express positive or critical points of view"[23] and was "open to amateurs and professionals without distinction of age" (NEARCH 2013). Together with a survey held amongst European Citizens, within the programme part of theme D, aimed at "Collecting extensive and updated data about the current situation of the archaeological sector, five years after the beginning of the crisis" (NEARCH 2013), the contest was aimed at gathering data about European citizen's perception of archaeology. Resulting data was to be shared amongst NEARCH partners for interpretation to aid new forms of policy making, including the use of new sustainable ways of practice, for instance through working with the creative sector. In this way, the NEARCH programme aims to connect with the EU Culture 2007 – 2013 programme, in which the "cultural horizon was still considered a decisive element of innovation, cohesion, and growth" (Guermandi 2016, 16) and deliver vital information on how to deal with culturally charged pivotal issues such as the increase in migratory movements and the European social crisis.

The contest was internationally launched on the 21st of April 2015 within the 8 countries housing the NEARCH partners. Although launched in languages of the NEARCH partners, the contest was open for contributions from all people living in Europe and/or having the European Nationality – meaning those within the 28 EU Member States. Both adults and children were allowed to enter the contest. For children between the ages of 0 and 12 years old, a special arrangement was created. A selection of prizes was made available for all participants, including a trip to Rome.

The Institute for Cultural and Natural Heritage (IBC), one of the NEARCH partners, and the one responsible for organizing the contest, provided the partners with a large variety of communication material, including logo's, posters, and images. Each

23 You(R) Archaeology –portraying your past: International Call

partner was responsible for their own communication regarding the contest, but all mainly used institutional websites and social media channels for digital media, and printing of posters and flyers for the more traditional forms of spreading information. Besides open calls launched within specific countries, the contest was also announced internationally on the NEARCH website[24], which also hosted more information on how to participate, including the sign-up forms and rules attached to the contest. That website formed the main portal for updates and information about the contest. Before the contest was launched, the IBC created a 'teaser' campaign in order to spark curiosity, expectations, and interest for the competition. This campaign consisted of teaser trailer films, folders, and brochures, which were shared and spread by all NEARCH partners in their respective environments.

The goal of the competition, was made clear in the call for submissions, as were its restrictions. Participants could choose between three different categories (video, drawing/painting, or photography) for submission, and for each category a different set of restrictions applied. For instance, the limit of bit-size of the image for photo submissions, or the maximum running time for the video submissions. More importantly, however, all initial entries were reviewed and selected by a jury consisting of members of the IBC, who selected only works which met the set criteria in the call, which stated that "the work submitted must be unpublished and related to Archaeological Heritage in the European Union (artefacts, belongings, sites, museums and monuments, archaeological excavation during construction works)".[25]

The deadline for submissions was initially set on the 23ed of July, 2015, but was extended to the 23ed of August, 2015, in order to accommodate more submissions, and especially in order to gain a more representative sample of the various nationalities involved. Between the 21st of April and the 23d of August, 328 entries were received. Of those submissions, just over 300 were considered eligible for competition.

The You(R) Archaeology contest formed one half of the 'Collecting and displaying people's representations about 'their' archaeological heritage' NEARCH activity. The other half builds on the results of the competition in the form of a (traveling) exhibition. It includes 87 works chosen by a jury of NEARCH partners. Dubbed 'Archaeology&ME', the first iteration of the exhibition was launched on December 10th, 2016, at the Palazzo Massimo in Rome and ran until April 23d, 2017.[26] The exhibition broadly follows the goals of the contest in that it also aims to display the position of archaeology in contemporary society, and its role for the future of Europe (Guermandi 2016). Besides the representation of the works of the You(R) Archaeology contest, the exhibition also houses some case studies and projects from the NEARCH partners which connect to the sociocultural issues playing in Europe in contemporary times. Together, both aspects are expected to engender insight into the perception of archaeology by archaeologist and non-archaeologist alike, which will hopefully contribute to Europe's goals to create a more sustainable and inclusive union, and tackle contemporary sociocultural issues.

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24 http://www.nearch.eu/news/european-competition-you-r-archaeology-portraying

25 You(R) Archaeology –portraying your past: International Call

26 http://www.archaeologyandme.eu/en/

4.4 The surveys

4.4.1 Introduction

This case study was aimed at getting a better understanding of the sociocultural impact of participation in the You(R) Archaeology contest, both to complement the NEARCH goals described earlier, and as part of this PhD research. The main mode of conduct was the creation, operation, and analysis of an online survey, a set-up similar to that of the DOMunder and Invisible Monuments case studies. This subchapter is dedicated to the description of both the preparatory phase, consisting largely of the creation of a methodological framework and set-up of the survey, and the analysis of its results.

In the previous sub-section, the research goals of this case study were discussed. In this sub-section, the activity goals – set by the initiators of the event -, will be discussed. Together, these two sets of goals form the backbone of the methodology behind the survey, and as such dictate its contents and focus. The methodology follows the same structural lines and uses the same conceptual framework as that of the DOMunder case study (and Invisible Monuments case study) and will be discussed in section 4.4.2.

The results of the survey will be discussed in section 4.5. While this case study is less extensive in contents than the DOMunder one, and focussed on just one instead of three different stakeholders, analysis of the data nonetheless reveals interesting results useful for comparison (see chapter six for a comparison and discussion of case study data), as well as for conclusions connected to the specific *research* and activity goals.

4.4.2 Methodology

As mentioned in the earlier sub-section, one of the research goals of this case study is to build on the existing dataset as gathered through the DOMunder research. This implicates that the intrinsic goal of this case study is also to understand and analyse the sociocultural effects of a public activity within the archaeological realm. The DOMunder case study was the first performed for this PhD research, and was used as a means to understand and create a method of conduct, based on literature and field testing, aspects that needed to be explored and tested in order to understand both the extent and depth of sociocultural impact. This was different for the You(R) Archaeology case study because the aim was to enlarge the pool of commensurable data, which meant using the same methodology. As this is the second case study, it was possible to build on to the existing experience and 'best practices' of the DOMunder case study.

Although the framework of the methodology is similar to that of the DOMunder case study, the activity and the survey population were quite different. Throughout the various NEARCH documents, and especially the open call, we can identify two *activity* goals:

The competition was aimed at visualising people's views, or representations, of archaeology and heritage (NEARCH 2013). This goal is connected to NEARCH's overarching goal to establish a better understanding of how contemporary citizens of Europe connect to cultural and archaeological heritage. Although the contest was initiated as a "listening initiative combining a variety of complementary methods in order to gain a first indispensable element for orienting the practices of our discipline based on parameters of economic and social sustainability" (Guermandi 2016, 17), the cultural horizon of NEARCH and, thus, of this contest is connected to that of the Culture

2007-2013 framework programme, focussing heavily on the creation of a European identity and future in order to mitigate current and future social and economic crisis (Guermandi 2016). As such, it "will be up to the project partners to summarise the results and, in line with NEARCH objectives, draw up proposals for making archaeology and archaeological heritage an increasingly effective tool for […] the European Union" (Varnin 2016). This means that while the objective of this contest was to 'listen' to the participants, respecting all levels of comments and critiques, underlying this was the aim to create an understanding and sense of 'Europeness'.

A second goal aimed to understand participants' sensations and interactions with archaeology and heritage; participants were encouraged to express positive or critical points of view.[27] This goal is oriented more towards understanding how participants deal with archaeology and heritage and what this means in their daily lives; it is more 'active' than the previous one.

The first activity goal is distillable through the visual nature of the competition. Participants were asked to create an artwork in which they represent their idea of heritage, be it a photo, video, or painting which meant that what is seen by a jury or an audience, is the rendition of the participant's vision of heritage. Much as in other artworks, it is up to the viewer to understand, capture, and empathize with the artists' thoughts and views. There is no need for more information to understand participants' representation of archaeology than solely the artwork itself. This is different for the second goal. Here, the aim was to understand people's interaction with heritage and this is much more difficult to distil from a single image – be it moving or not. That is why participants were given the opportunity to comment on their artwork. Though some artists did not provide annotation to their work, most of them did, giving a broader context and background information as to why they, for instance, chose a certain object or method.

These activity goals, as well as the previously described research goals, were important in order to create indicators and subsequent questions for the survey. The goals set for the You(R) Archaeology contest were different from those for the DOMunder case study as the former's goals were aimed at creating a visitor experience whereas the latter's goals were geared towards understanding the audience's perception as an outsider by hosting a creative contest. While both engender participation and interaction, the You(R) Archaeology activity was not specifically set up for that goal. Rather, it utilizes the activity for other purposes.

As with the DOMunder, here too Matarasso's framework (1997) is extensively used as the basis for the creation of themes, indicators, and questions (table 4.1). Again, 'translation' from Tier 2 into subsequent tiers is based on the research and activity goals.

The participants of the You(R) Archaeology contest reside in various European countries and use different languages. However, due to restrictions of time and to avoid translation errors, it was decided to use English as the primary language for the survey. Contents of the survey were first discussed with the IBC for aim and contents, and after finalizing the draft, the survey was put online using Qualtrics, an online survey tool.[28] As a research member of the Faculty of Archaeology of Leiden

27 You(R) Archaeology –portraying your past: International Call

28 http://www.qualtrics.com

Tier 1	*Tier 2*	*Tier 3*	Tier 4	*Tier 5*
Matarasso's (1997) headings	**Applicable actions based on Matarasso's (1997) list**	**Specific You(R) Archaeology actions**	**Relevant Social Indicators**	**Possible questions**
Local image and identity	Develop pride in local traditions and culture. Help people feel a sense of belonging and involvement. Improve perceptions of marginalized groups. Make people feel better about where they live.	Let participants think about the role of archaeology from a personal as well as global perspective. Let participants think about what is considered the EU and how this is represented in archaeology and heritage.	Number of participants and their home countries Number of participants who chose their work to be local/national/inter-national Connectedness to local/national/inter-national archaeology	What is your country of residence? Do you consider your artwork to be local/national or international? Do you feel proud of your local/national/international archaeology?
Personal Development	Increase people's confidence and sense of self-worth. Contribute to education. Help build new skills and work experience. Contribute to people's employability. Help people to develop or take up careers in archaeology.	Stimulate critical thinking and self-reflection. Let participants learn about archaeology and connect this with their own life and views. Stimulate the use of (artistic) skills; either participants learn new skills or practice the use of existing skills in a professional context. Help professional artist to distribute and advertise their work.	Time involvement. Number of amateurs versus number of professionals. Increase in archaeological knowledge. Contribution to personal traits, such as motivation and creativity. Skill development.	How much time did you spent creating this artwork? Do you consider yourself to be an amateur or professional in relation to archaeology? Do you consider yourself to be an amateur or professional in relation to art? Participating in this contest increased my knowledge of archaeology (statement with Likert scales). How much did this contest contribute to your [motivation/creativity/etc.]? Did you learn a new skill?
Social Cohesion	Develop community networks and sociability. Provide a forum for intercultural understanding and friendship. Develop contact between generations.	Develop a sense of 'commonness' and a European identity through interaction with archaeological heritage. Stimulate parent-child activities in relation to archaeology and heritage (special children's category in the contest). Let participants feel part of a living civilization, history and world.	Connectedness to the area of the art subject, or the people living there. Number of parent-child contributions. Number of participants indicated to have worked together with/contacted other people because of this contest.	Was this contest a reason for you to get in touch with other people? Participating in this contest made me feel more connected to local/national/international archaeology.

Tier 1	*Tier 2*	*Tier 3*	Tier 4	*Tier 5*
Matarasso's (1997) headings	**Applicable actions based on Matarasso's (1997) list**	**Specific You(R) Archaeology actions**	**Relevant Social Indicators**	**Possible questions**
Community Empowerment and self-determination	Encourage local self-reliance and project management. Be a means of gaining insight into political and social ideas.	Let participants think about contemporary societal issues such as migration through the interaction with archaeology and heritage.	Number of participants referring to broader societal issues in relation to their artwork and/or comments.	Why did you participate in this contest? Could you elaborate on your chosen method?
Imagination and vision	Allow people to explore their values, meanings, and dreams.	Stimulate creativity by utilizing art forms as tools of expression. Let participants think about their past(s) and future(s).	Number of contributions in drawing/photo/video.	What category did you submit your work in?
Health and well-being	Have a positive impact on how people feel. Provide a unique and deep source of enjoyment – part of a person's quality of life.	Through stimulating the senses, *i.e.* using an art contest as source for data, let participants enjoy themselves.	Contribution to personal emotions such as happiness and enjoyment. Level of satisfaction.	How much did participating effect the following emotions [happy/useful/etc.]? Do you feel satisfied after your submission?

Table 4.1: Social indicators for the You(R) Archaeology survey. After Matarasso (1997) and the North East Regional Museums Hub Tool.

University, Qualtrics could be used free of charge and as such was preferred over SurveyMonkey, the survey tool used for the DOMunder case study whose use was based on a payed subscription. Furthermore, Qualtrics has the option to create online cross-tabs, which provide a quick research and analysis tool to facilitate the research process.

The final survey consisted of a combination of 18 open and closed questions, and was divided into three parts/pages: perception, impact, and demographics (see appendix B1). There was a pool of 324 e-mail addresses belonging to participants available to use as survey population; by participating in the contest they declared their e-mail addresses open to academic research and/or the sharing of information in relation to the contest. An e-mail with an anonymous link to the survey was sent on the 17th of June, 2016 by using the Qualtrics possibility to mass-email survey recipients. Because the survey was only filled out 56 times one month later, it was decided to send a reminder, this time written by the IBC, the main instigator behind the contest, which would hopefully imply a sense of recognition and validation. This e-mail was sent on the 22nd of July, 2016; the survey closed on September 1st, 2016. By then an additional 48 responses were received which upped the total amount of received responses to 104. With a sample size of 104, over a total population of 324, using a 95% confidence interval, an error margin of 7.93% is calculated, and together with the fact that the sample size is selective (online audience only), we can

conclude that we are dealing with non-representative data for the total population of the You(R) Archaeology contest. However, with these factors in mind, we can conclude that the gathered amount of data is indicative for the population, rather than definite. Respondents were free in skipping questions in the survey, meaning that for some questions the number of answers is lower than the total number of survey participants.

4.5 Results

4.5.1 Demographics

In total, 87 respondents shared their age in the questionnaire; the largest group was between 36 and 60 years old (48.3%, figure 4.1), though this was also the widest category participants could choose in terms of age span. Young adults (21-35 years old) composed 24.1% and elderly (60+ years old) people 8% of the total survey population. Children (1-11 years old) (11.5%) and teenagers (12-20 years old) (8%) make up the rest of the respondent population. In terms of gender balance (n=87), the largest group consisted of females (56%); 43% was male and only 1% indicated to rather not tell their gender.

Italy is overrepresented in the results (48 submissions, 54.5% of total; the remaining 45.5% hailed from 10 other countries – table 4.2). We can attribute this large difference to the fact that the IBC, the host and initiator of the You(R) Archaeology contest, is located in Italy and it put in a considerable effort to present, distribute, and share the contest with its local and national population. This outcome is possibly also strengthened by the fact that IBC sent out a reminder e-mail during the course of the questionnaire. While writing in English, the IBC name added to the e-mail could potentially have encouraged especially Italian contest participants to fill out the questionnaire.

The percentages for the 328 actual art submissions, in terms of country of residence, are slightly different. Here, 45.1% comes from Italy and 54.9% from other countries (most notably Germany with 12.8% and France with 9.6%). While there is about 10% difference in numbers between the total population and the sample group, there is still a large skew towards Italian submissions.

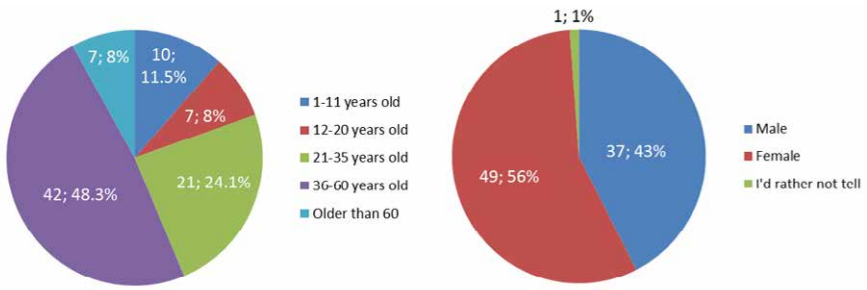


Figure 4.1: Left: Age categories for respondents (n=87). Right: Gender balance for respondents (n=87).

4.5.2 Local image and identity

Participants were asked whether they think the subject of their artwork, regardless of the art form, is something local, national, or international, or a combination. Out of the total of 86, most considered their artwork to be strictly international (66.3%; figure 4.2). Both national and local options were chosen far less, with 4.7% and 7%, respectively. Nineteen respondents (22.1%) saw their artwork as a combination of those factors. While the call was of an international, more specifically European, nature, this does not automatically mean that the art subject had to be something international; the contest flyer specifically mentioned that it focuses on "the Archaeological Heritage in the European Union", but it also stated "to which extent do you feel the presence of archaeological evidences in your urban, rural, and human landscape?" and "archaeological excavations during construction work". These explanations and descriptions

Country	Questionnaire respondents	Total population
Italy	54.5%	45.1%
France	4.5%	9.8%
Australia	1.1%	0%
Austria	0.0%	0.3%
Belgium	3.4%	1.5%
Denmark	0.0%	0.3%
Germany	8.0%	12.8%
Greece	3.4%	7.0%
the Netherlands	3.4%	3.4%
Poland	2.3%	6.7%
Portugal	1.1%	0.3%
Spain	6.8%	4.9%
Switzerland	0.0%	0.3%
United Kingdom	11.4%	6.1%
Other	0.0%	1.2%
Total	100.0% (n=88)	100% (n=328)

Table 4.2: Country of residence of the respondents (n=88) compared to the total pool contacted for the questionnaire (n=328).

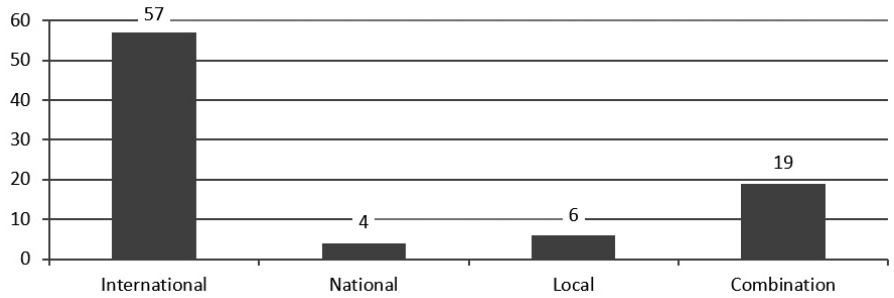


Figure 4.2: Art provenance (n=86).

gave participants both the option and stimulation to pick something smaller and more local as their subject, but apparently, this did not have much effect.

The second topic within the 'local image and identity' paragraph has to do with participant's impact on pride for local, national, or international archaeology, more specifically whether this had increased by contributing to the You(R) Archaeology contest. Results show that most participants did feel an increase in their pride for archaeology by contributing to this contest. When looking at increase in pride over the scores for the three regions (local, national, and international) combined, 81 out of 233 (34.8%) scored 'Somewhat agree' versus 75 out of 233 (32.2%) 'Strongly agree' (figure 4.3). The combined results for 'Somewhat agree' and 'Strongly' agree were scored 62 (73.8%) for international, 52 (69.3%) for national, and 42 (56.8%) for local archaeology (table 4.3). In comparison, only 5.2%, 6%, and 8.6% were noted for 'Neither agree nor disagree' and even less people, 3.9%, 3.4%, and 4.7%, indicated to not feel an increase in their pride (combining 'Somewhat disagree' with 'Strongly disagree'). Overall, this means that out of the total combined scores, on average, 67% of the participants felt an increase in their pride towards archaeology (Somewhat agree and Strongly agree combined divided by the total of scores).

Figure 4.3 shows that the strongest increase in pride was felt for international archaeology. However, when we cumulate and translate the scores into 'No' (Strongly disagree and Somewhat disagree), 'Neutral' (Neither agree nor disagree) and 'Yes' (Somewhat agree and Strongly agree) categories, for ease of comparison, on average (taking into account the skew towards International provenance submissions), it appears that there is no clear relation between the provenance of the artwork (Local, National, International) and impact on pride for those specific regions. For instance, when looking at increase in pride for the Local region, Local art provenance scores highest with 73.3% of the participants (in green), but this is not the case for the International impact where highest impact is perceived by participants having submitted artworks with a National provenance (83.3%, also in green). If we follow that specific line of reasoning, we would have expected the International provenance artworks to score highest for impact in International pride, but in this case, it was National artworks scoring highest (83.3%).

From these data, we can conclude that working with a specific artwork provenance does not impact pride for that specific regions' archaeology. While it might be interesting at this stage to go into more detail, for instance investigating the reason for choosing a specific artwork and its relation with pride, there is no quantifiable data available specifically referring to participant's reasons for choosing a specific provenance for their artwork, making further analysis of this subject impossible.

4.5.3 Personal development

The amount of time participants spent on creating their artworks was varied, but the largest group spent between 1 to 5 hours (30.1%; figure 50). Following closely is the category of participants who spend more than 10 hours on their submissions (29%).

While 24.7% of the respondents indicated that they spent less than 1 hour on their submissions, it can be argued that most people spent a considerable amount of time on their artwork. It was not asked what this time was spent on exactly (for instance on doing research or actual creation), so further analysis and breakdown

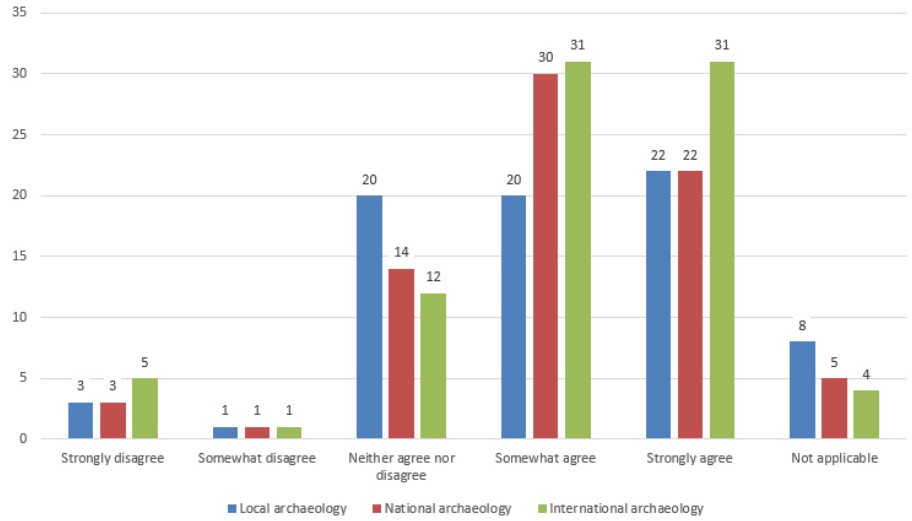


Figure 4.3: Absolute scores given for impact in pride for local, national and international archaeology (n=233).

		Art provenance		
		Local	National	International
Local impact	**No**	6.7%	5.9%	7.1%
	Neutral	20.0%	11.8%	23.2%
	Yes	73.3%	70.6%	57.1%
	N/A	0.0%	11.8%	12.5%
	Total	100.0%	100.0%	100.0%
National impact	**No**	6.7%	6.3%	7.0%
	Neutral	20.0%	12.5%	15.8%
	Yes	73.3%	75.0%	70.2%
	N/A	0.0%	6.3%	7.0%
	Total	100.0%	100.0%	100.0%
International impact	**No**	12.5%	5.6%	7.7%
	Neutral	18.8%	5.6%	10.8%
	Yes	68.8%	83.3%	76.9%
	N/A	0.0%	5.6%	4.6%
	Total	100.0%	100.0%	100.0%

Table 4.3: Art provenance versus impact in pride, in percentage of received answers (n=88).

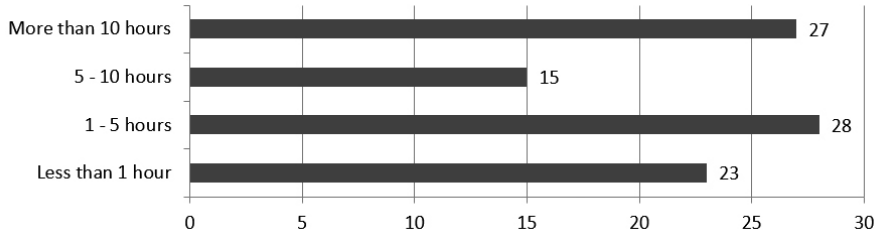


Figure 4.4: Time spent on the creation of artworks. Number of respondents is absolute (n=93).

of time investment in various aspects of art creation is not available. The group of participants calling themselves 'professional' spent the most time (figure 4.5); non-professionals spent far less time on their creations, although a quarter (25.4%) of them still spent more than 10 hours.

Participants were also asked why they participated in the contest, and they could comment freely. When we analyse these qualitative responses, it turns out that 6 out of the total of 10 artists who spent more than 10 hours (60%) and responded to this question, did this because they found the topic interesting; only 3 (30%) mentioned the fact that they did this because of their profession and the possibility to showcase their work, one person responded was for example "I took part in the contest because I'm developing my new vision and why I always want to get involved" (Anonymous respondent). Non-professionals spending more than 10 hours also mostly mentioned that they found the topic interesting. One non-professional participant said that he or she "just started to draw again after ten years and it was a great opportunity for me to show my pictures and try myself in a competition" (Anonymous respondent). The focus on a general interest in the topic as reason for participation was not different for professionals and non-professionals spending less than 1 hour. Professional artists mention that the topic was of interest or that they want to "to show the beauties of Italy" (Anonymous respondent), whereas non-professionals answers range from "'I like the contest" (Anonymous respondent) to "To share my view on the interaction between antiquity and contemporaneity" (Anonymous respondent). In total, 6 out of 27 professional artists (22.2%) mentioned, in a variety of ways, that the contest was connected to their profession and, as we saw, 3 are located within the 'more than 10 hour' slot. This means that we can conclude that some artists used this contest to showcase their work, or at least that it resonated with their profession, but we cannot conclude as to why exactly this imbalance between hours spent and reasons for participating is present within the data: reasons for participations, across the board, are too varied.

One of the goals of this contest was to help the citizens of the European Union create an understanding of what they believe to be important in archaeology and heritage, and to share those views with the wider world. While the reflection on the personal value of heritage and archaeology can be done quite superficially, for instance by referring to personal memories or anecdotes, most likely some of the participants will read up and learn about either specific or general archaeological subjects, or both. Whether or not participants increased their knowledge on archaeology as a result of this contest was part of the survey. More specifically, participants were asked to react

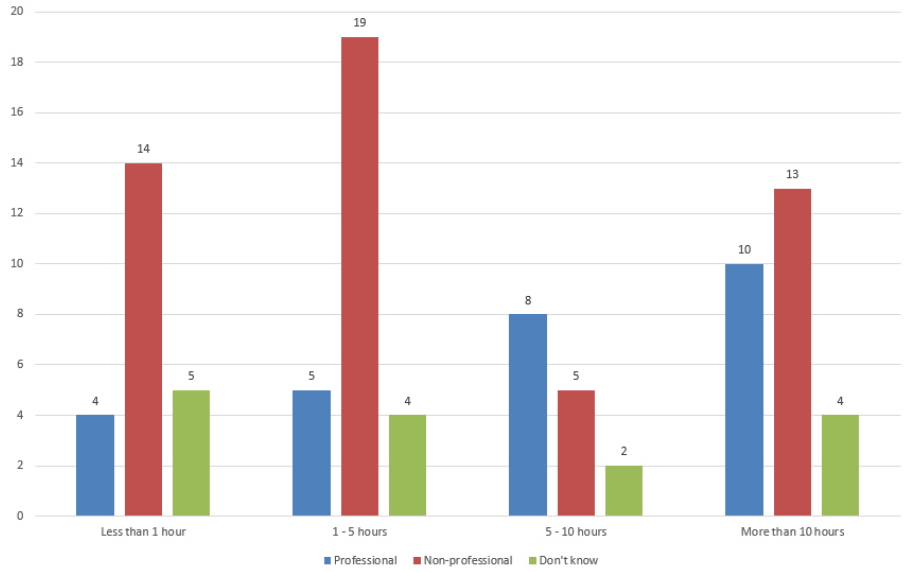


Figure 4.5: Comparison of time spent on creation of artworks versus 'professional' and 'non-professional' participants. Numbers are absolute (n=93).

to the statement "participating in the contest increased my knowledge of archaeology", and were a given a 5-point Likert-scale to choose from, ranging from Strongly disagree to Strongly agree.

'Somewhat agree' was scored by the largest group, indicating that they had learned something (42.5%; figure 4.6); 8 participants (9.2%) 'Strongly agreed' to this (figure 4.6). A large part of the participants (35.6%) indicated to 'Neither agree nor disagree', indicating that they are either not sure how to interpret the question or that they do not know whether knowledge increase occurred. In effect, this means that 51.7% of the participants felt their knowledge increased through participation, 35.6% where neutral and only 12.6% indicated that participating did not affect their knowledge on archaeological subjects. With more than half of the participants indicating to have gained knowledge about archaeology it can be concluded that, while this was not one of the main goals of the contest, a participatory activity about archaeology does impact people's knowledge. However, it seems that the scores here are not as high as for the DOMunder activity, although comparison is difficult because of the difference in scaling.

Comparing these results with the age categories of the participants shows that the youngest participants where the most positive in their answers (together, 60% choose 'Somewhat agree' and 'Strongly agree'; figure 4.7). However, they were also the most negative (20% chose 'Strongly disagree' and 'Somewhat disagree'). Less outspoken was the oldest category (older than 60); they were mostly neutral with 57.1% in total. These results mean that there is not a clear connection between age and an increase in knowledge. There was however a difference in knowledge increase in gender: females were somewhat more positive in their answers. Females perceived a higher impact in

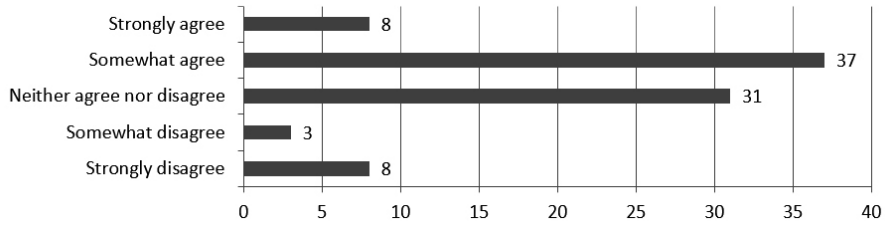


Figure 4.6: Responses to the statement "Participating in the contest increased my knowledge of archaeology" (n=87).

knowledge increase than males, scoring 56.2% in 'Somewhat agree' and 'Strongly agree' whereas males scored a total of 45.9% for those two categories.

In addition to this question, participants could indicate why they chose a particular answer. While many participants indicated to agree with this statement, indicating increase of knowledge, there were also many participants indicating that they had a neutral stance. From the qualitative answers, we learn that many participants indicated to either be an archaeologist or heritage practitioner themselves, or that they already had quite extensive knowledge about the subject. This is strongest for participants scoring in the disagree range and those who were neutral. For instance, one participants who scored 'Strongly disagree' mentioned "I have a master degree in archaeology, so I already have a strong knowledge of archaeology" (Anonymous respondent). Others were more nuanced. For instance, one participant scoring neutral ('Neither agree nor disagree'), stated that "I am an archaeologist, so it was the knowledge of the field that made me know what to do for the contest, and not the other way around" (Anonymous respondent); yet another participant from the same category stated "I learnt more about the organisation and what they did but I did not learn anything in particular about archaeology" (Anonymous respondent). Participants who generally agreed to this statement indicated to have learned because they needed more knowledge about a particular subject. One participant stated for example that "I had to study several subjects to find the base for my painting" (Anonymous respondent), another even stated that his or her "Knowledge of archaeology has increased to the level of personal feeling when I immersed myself in thinking of the past in relation to the present and future" (Anonymous respondent).

When compared to hours spent on the activity, it turns out that participants spending the most hours (10+) on the contest, did indicate to agree more with the above statement; conversely, participants indicating to have spent 1 hour or less most commonly indicated to disagree the most (Figure 4.8).

The above implies that not so much the age, but the reason for- and time spent on- the creative process led to an impact on people's knowledge.

Within the theme of Personal Development, the development of personal characteristics, or attributes, is also included. This is different from personal emotions affected through participation, which are better assigned to the health and well-being theme and will therefore be discussed in that paragraph. Included are the same attributes as for the DOMunder case study, 9 in total: motivation, self-consciousness, creativity, self-confidence, sense of involvement, self-acceptance, views on life, views on religion,

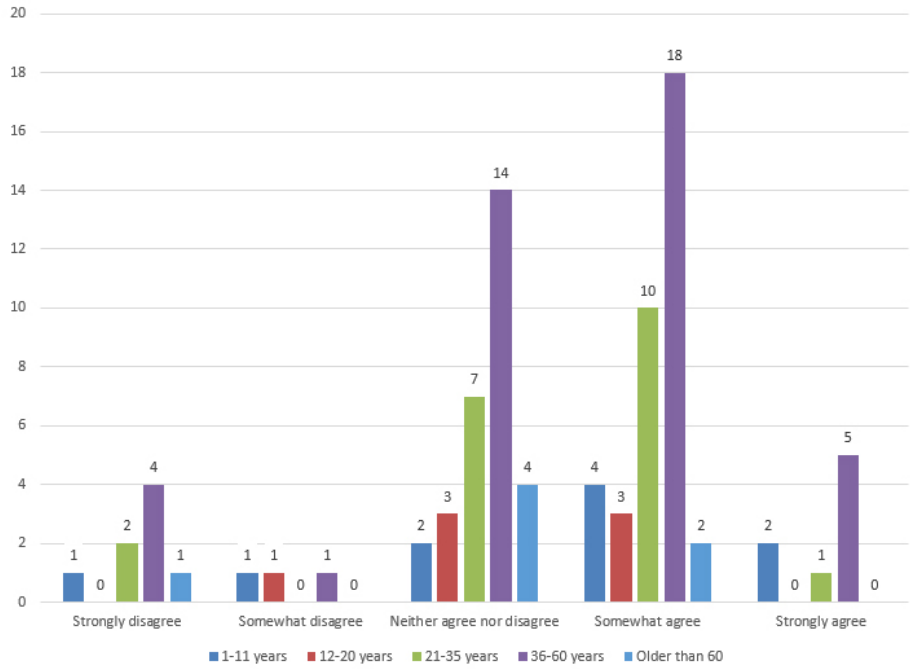


Figure 4.7: Comparison of increase in knowledge by age category. Numbers are absolute (n=86).

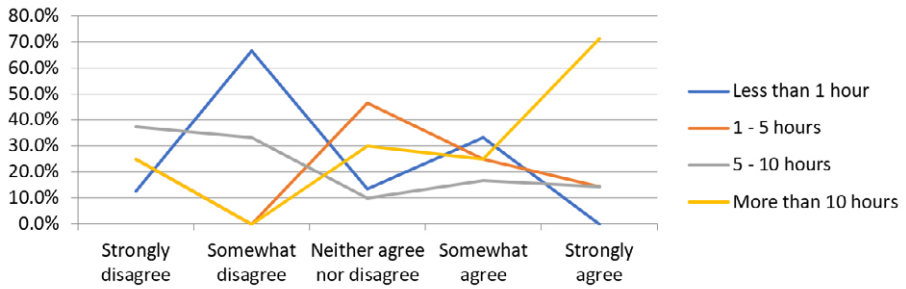


Figure 4.8: Relative comparison of time spent versus knowledge increase (n=84).

and understanding of the past (figure 4.9). Participants were able to score to the particular question "how much did your participation in the contest contribute to your… [attribute]", with 'Not at all', 'Slightly', 'Somewhat', 'Moderately', or 'Extremely'. While these scale levels are arguably not clear to every participant, as was discussed in the DOMunder chapter, it was chosen to use these for ease of cross-comparison between case studies.

When averages are calculated based on the scores for each of these attributes, we see that creativity scored highest with 4.0 out of 5.0. Attributes following closely where understanding of the past with 3.6, sense of involvement with 3.7, and motivation with 3.7 as weighted averages. These scores are comparable with the results discussed earlier within this specific personal development chapter, namely that participants indicate to generally have noticed an increase of knowledge, perhaps

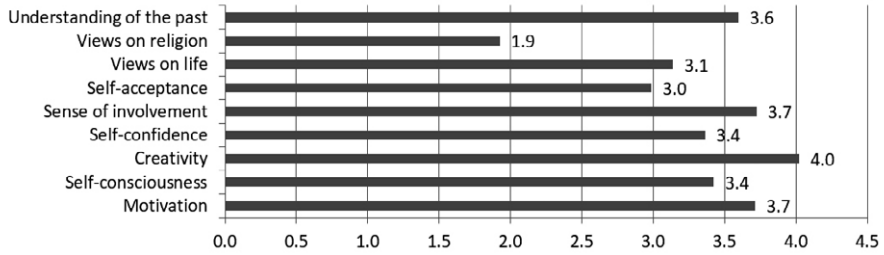


Figure 4.9: Weighted averages for personal attributes (n=82 for Understanding of the Past, n=79 for Views on religion, n=79 for Views on life, n=78 for Self-acceptance, n=80 for Sense of involvement, n=80 for Self-confidence, n=86 for Creativity, n=80 for Self-Consciousness, and n=84 for Motivation).

	1-11 years old	12-20 years old	21-35 years old	36-60 years old	Older than 60	Average
Motivation	3.7	4.3	3.6	3.7	4.0	3.7
Self-consciousness	3.5	4.0	3.5	3.3	3.8	3.4
Creativity	4.4	4.4	4.2	3.9	3.7	4.0
Self-confidence	3.4	3.9	3.8	3.2	2.8	3.4
Sense of involvement	4.0	4.6	3.9	3.5	3.8	3.7
Self-acceptance	3.4	3.6	3.3	2.8	1.2	3.0
Views on life	3.1	3.4	3.4	3.2	1.4	3.1
Views on religion	1.6	2.9	2.4	1.7	1.0	1.9
Understanding of the past	4.0	4.0	4.0	3.5	2.0	3.6
Average	**3.5**	**3.9**	**3.6**	**3.2**	**2.6**	**3.3**

Table 4.4: Weighted averages for personal attributes compared with age categories (n=83 for Motivation, n=79 for Self-consciousness, n=85 for Creativity, n=79 for Self-confidence, n=79 for Sense of involvement, n=77 for Self-acceptance, n=78 for Views on life, n=78 for Views on religion, and n=81 for Understanding of the past).

not very strongly but nonetheless noticeable, and that the reasons for this can be attributed to personal motivation and general appreciation of the contest. Overall, these scores are somewhat higher than those for DOMunder (see chapter six for a detailed comparison).

On average, the younger generations, particularly those aged between 12 and 20 years, felt that contributing to the contest impacted their personal attributes the most, scoring a 4.4 weighted average for creativity and 4.3 on motivation (highest averages indicated in green); least positive (in red) were the older generations, with the oldest participants scoring a 2.6 on average (table 4.4).

Where nearly all effects on attributes are, on average, declining for people older than 20 years, motivation, self-consciousness and sense of involvement rise again for

	Do you consider yourself to be a professional artist?				
		yes	**no**	**don't know**	**Total**
Did you learn a new skill	**yes**	5	22	5	32
	no	15	19	6	40
	don't know	3	8	2	13
	Total	23	49	13	85

	What is your age category?						
		1 to 11	**12 to 20**	**21 to 35**	**35 to 60**	**older than 60**	**Total**
Did you learn a new skill	**yes**	5	5	8	14	1	33
	no	4	1	9	21	5	40
	don't know	1	1	3	7	1	13
	Total	10	7	20	42	7	86

	What is your gender?				
		male	**female**	**prefer not to tell**	**Total**
Did you learn a new skill	**yes**	16	16	1	33
	no	19	21	0	40
	don't know	2	11	0	13
	Total	37	48	1	86

Table 4.5: Impact on skill development comparing 'professional' and 'non-professional', age categories, and gender. Numbers are absolute.

the oldest age category. While this effect is remarkable, there is no clear explanation as to why this occurs.

An important aspect of personal development is skill development. Participants of the You(R) Archaeology contest were expected to actively contribute through the creation of their artworks. This would likely involve the use of their creative skills, obviously at different levels and in different forms, varying per participant. Most of the participants indicated that their skills did not improve due to their participation in the contest (47%; table 4.5). However, 32 (37.6%) of the participants did note that the competition helped develop their skills, meaning that for over one-third of the participants participating in the contest was beneficial in this regard, which can be considered a positive result.

Interestingly, the participants who did not consider themselves to be professionals perceived the highest impact on skill development (44.9% for non-professionals versus 21.7% for professionals). Perhaps this is due to the fact that professionals already are quite familiar with creative techniques and non-professionals want to try out their creative potential. When we compare impact on skill development with age, we see that the age category of 12-20 years old, just as for personal attributes, scored most

positively, with 71.4% (5 out of 7) indicating to have learned a new skill. Only one out of 7 of the oldest participants noticed impact on skill development (14.3%). Finally, we see that males learned more new skills than the female gender (16 out of 37, 43.2%, versus 16 out of 48, 33.3%).

4.5.4 Social cohesion

Participants were asked whether or not participating in the contest increased their connectedness to archaeology, and the neighborhood of the artwork and the people living there. Although this aspect seems similar to pride, as discussed in the 'local image and identity' paragraph, it focusses more on cohesion, or the feeling of being connected to a certain place or people, rather than on an increase in pride specifically which is more linked to people's identity.

Participants felt most connected to International archaeology, with 29 people (35.8%; table 4.10) even feeling a strong impact ('Strongly agree'). Connectedness to National archaeology follows second, with 18 (23.7%) agreeing Strongly and 25 (32.9%) agreeing Somewhat. Participants felt least connected to Local archaeology after participating in the contest; 17 (21.5%) agreed Strongly and 21 (26.6%) agreed Somewhat. Interestingly, 10 (12.7%) people found that increase in connectedness for Local archaeology was 'Non-Applicable', whereas only 3 (3.7%) thought this for International archaeology. This could perhaps be linked to the difference in art provenance, favoring international subjects. This could mean that while overall, the artworks had an international connotation, people were also impacted on in their connectedness to both local and national archaeology. A reason for this could be that while their provenance might be mostly international, this led them think about national and local archaeology as well, positively impacting their knowledge, pride (see previous paragraphs), and connectedness.

Furthermore, figure 4.10 shows that participants did feel more connected towards the neighborhood of their chosen artwork, and the people living in it, but these scores were not as high as for connectedness towards the regions. Additionally, many people felt that impact in connectedness towards the neighborhood (23.7%; figure 4.10), and people living in the area of their artwork (22.4%; figure 4.10), was not applicable. When compared, we see that the majority of the not-applicable scores for connectedness to the neighborhood of their artwork, and people living in the area of their artwork, come from participants indicating their artwork to be International (25.9% and 24.6%, respectively), less for National archaeology (18.8% and 18.8%, respectively) and still less for Local archaeology (13.3% and 13.3%, respectively). A supposed cause for this might be that international art subjects might be not as accessible and touchable as national and local subjects. Overall however, these scores could indicate that many participants worked with objects and ideas not requiring visitation.

Quite large differences are seen between connectedness for the three archaeological regions versus the age categories (figure 4.11). For instance, for Local archaeology, all people aged 12-20 and 60+ 'agreed' (a combination of Strongly agree and Agree) to the statement, whereas in the age category of 21-35 only 60% 'agreed'. The oldest age group is much less positive about National and International archaeology (40% and 60%, respectively) and for the latter the age group 1-11 also scored particularly low

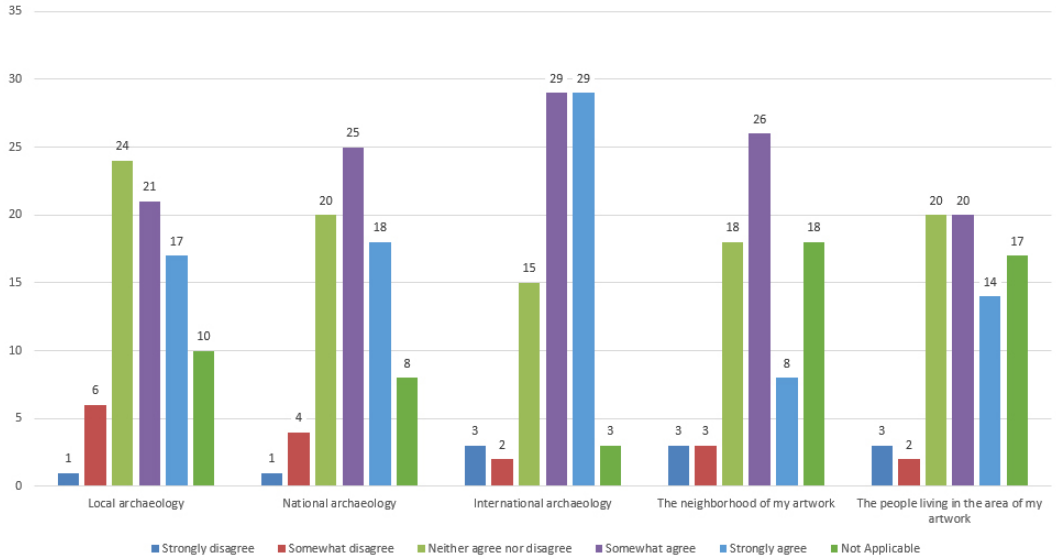


Figure 4.10: Impact on connectedness towards Local, National, and International archaeology, the neighborhood, and the people living in the area of my artwork (n=79 for Local archaeology, n=76 for National archaeology, n=81 for International archaeology, n=76 for The neighborhood of my artwork, and n=76 for The people living in the area of my artwork).

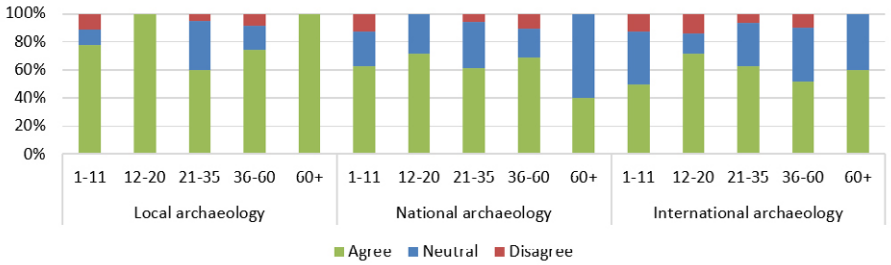


Figure 4.11: Relative connectedness per age category (n=68 for Local archaeology, n=67 for National archaeology, and n=77 for International archaeology).

(50%). While the age group 12-20 saw the biggest impact in their connectedness, it is unclear why these fluctuations in score occur.

It appears there is no clear correlation between increase in connectedness for the three regions and impact in knowledge; Spearman's Rho tests shows a correlation co-efficient of .362 with high statistical significance ($p<0.003$) (n=68) between Local archaeology and impact in knowledge, a correlation co-efficient of .630 with very high statistical significance ($p<0.0001$) (n=67) between National archaeology and impact in knowledge, and a correlation co-efficient of .461 with very high statistical significance ($p<0.0001$) (n=77) between International archaeology and impact in knowledge.

Data shows that more than half of the participants of the survey took the contest as an opportunity to meet new people (51.4%). Most of the participants who said 'yes' to this question belonged to the 12-20 years old age category (83.3%);

indeed, some of the comments showed that parents used this opportunity to work on this activity together with their children (and apparently it were the children who submitted). A difference was found between gender groups (54.5% male versus 48.6% female), but unfortunately a Mann Whitney test did not reach statistical significance (U=543, p=0.625, n=69).

4.5.5 Community empowerment and self-determination

For this subject, a single question was used, namely 'Why did you want to take part in this contest'? The question was purposely stated in an open way, so that participants had freedom in the way they could answer this question and were not steered in their answers.

In total, 85 participants responded to this question and from those answers 5 categories were distilled; 3 participants scored more than 1 category, resulting in a total of 88 scores. Most people (45.5%; figure 4.12) mentioned that they participated because of their general interest in the topic. Included in this category were participants who, for instance, liked the archaeological topic, liked to participate in a contest, or liked the connection between art and archaeology. Some participants indicated that they already had created something of an 'archaeological' artwork before the competition took place, and took it as an opportunity to send that in.

Following, at a large distance, is the second group (28.4%). These were participants indicating to participate because of social reasons, for example because they thought "it was a great experience for me and my family to get to show them the importance of heritage and its social value" (Anonymous respondent), or that it was because of "first for fun and then for fun again" (Anonymous respondent). Other participants mentioned working together with children or to 'let people know there are beautiful archaeological places worth visiting'. One person specifically mentioned the importance of archaeological heritage for Europe: "Because this activity was a way we can show our abilities and our archaeological heritage to Europe" (Anonymous respondent).

Some participants indicated to either be an archaeologist themselves, working on an archaeological course, or contemplating starting an archaeological study (14.8%). Interestingly, only one person within the 'archaeological' category mentioned that they joined because of educational training. Others were artists, or wanted validation for their artwork (9.1%). While most of the latter category respondents were quite positive in their comments, one person clearly had less optimistic ideas about the artistic world, stating that participating was a "desperate but futile attempt to gain acclaim"

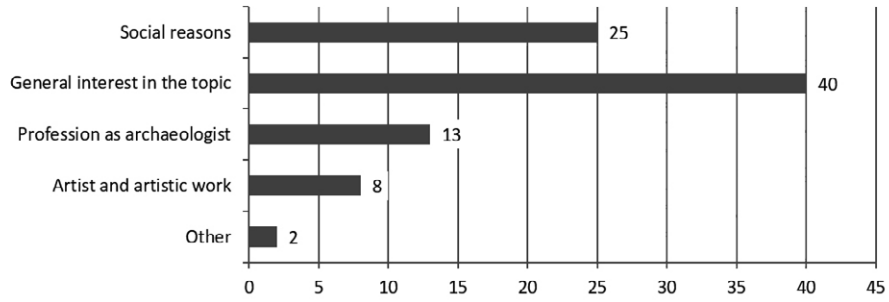


Figure 4.12: Reasons for joining the You(R) Archaeology contest. Numbers are absolute (n=85).

(Anonymous respondent). Only 2 respondents (2.3%) mentioned other factors as incentive to participate.

In general, European citizens appreciate archaeology and archaeological heritage for its educational and historical values (Kadja *et al.*2017). In this sense, the *DOMunder* activity seems to be more of a representative of these European values than the *You(R) Archaeology* contest; people here joined primarily because of a general interest in the topic, perhaps because the topic inspired them to create artworks. The high number of social reasons apparent for the You(R) Archaeology activity is also not reflected in European citizens' appreciation of archaeology (Kadja *et al.* 2017).

4.5.6 Imagination and vision

Most participants submitted their work in the photo category (46.4%), followed by drawings (including paintings) (43.3%), and video submissions (10.3%). Participants indicating to be professional artist submitted more in the drawing category (75%; 21.4% for photography and 3.6% for video; figure 4.13); conversely participants indicating *not* to be professional artists submitted more works in the photography category (54.9% versus 31.4% in drawing and 13.3% in video).

While reasons behind these differences are not clear from the survey, it can be estimated that artists, because of their profession, are able to spend more time on both artwork and mastery of the method. Photography in that sense is a relatively easier tool, offering a fairly accessible category – also in relation to people who already have photographs taken during their trips to various archaeological or heritage sites and took this contest as a reason for submission, as we saw earlier.

4.5.7 Health and Well-being

Within the context of health and Well-being, participants were asked to indicate how much their participation in the contest affected certain personal emotions. These emotions, 13 in total, are connected to personal Well-being and are in that sense different from the personal characteristics or 'attributes' discussed earlier in this chapter. Emotions were divided between 'positive' and 'negative' (see table 4.6). Participants could rate how much they were affected in a 5-point Likert scale, ranging from 'Not at all' to 'Extremely", for each emotion.

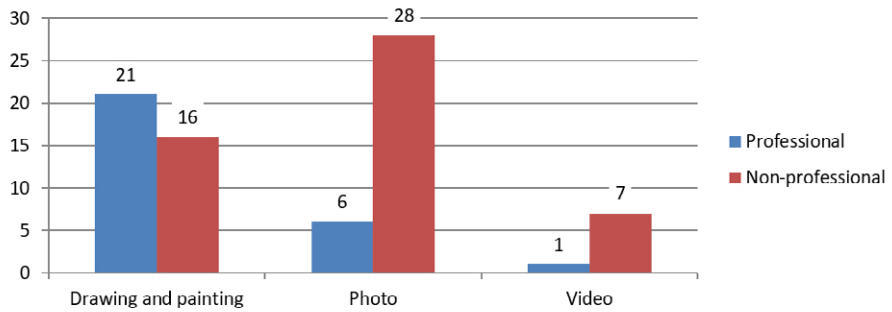


Figure 4.13: Submission categories comparing professional and non-professional participants. Numbers are absolute (n=79).

From the Positive emotions, both 'inspired' and 'positive' scored highest on weighted average: 4.1 and 4.0, respectively (indicated in green). These two 'peaks' are followed by a group of emotions hovering slightly above or at 3.6, – happy (3.8), useful (3.7), capable (3.6), and energetic (3.6). Comparison between age groups shows that the age group of 12-20 years scored highest on average (3.9 indicated in green). As was discussed earlier, this age group also scored highest in relation to impact on personal attributes, and skill development.

However, while this age group scored highest on average for the *positive emotions*, they also scored a weighted average of 2.9 for the 'anxious' Negative emotion (also in green). We could assume that this is because while feeling capable (4.1) they also felt the pressure of performance; however, 'judged' was scored relatively low as was their feeling of being insecure. There are big differences between the eldest age group (60+) and the younger generations (1-35 years old), most notably in 'relaxed' (1.7 points difference, highest and lowest scores in blue), 'inspired' (1.1 points difference, highest and lowest scores in blue), and 'healthy' (1.6 points difference, highest and lowest scores in blue). However, the eldest age group also scored lowest on the Negative emotions (1.2 on average). As discussed, they also scored lowest for impact on personal attributes. It seems that the older generation is either less susceptible to impact on these aspects, or has a different standard than the younger generations. No big differences were found between the genders (Positive emotions: 0.1 difference in favor of females; Negative emotions 0.3 difference in favor of females).Interestingly, it seems that there is a relation between the emotions – both positive and negative – and impact in knowledge. As can be seen in figure 4.14, participants indicating to either Somewhat agree or Strongly agree are also the ones scoring highest in Positive emotions.

Big differences between the emotion scores can, for instance, be found for 'happy' (0.8 points difference). We also see a sharp decline in Negative emotions across the spectrum, with the biggest differences scored between 'Strongly disagree' and 'Strongly agree'. While the differences between the two Likert-scale outliers ('Strongly disagree' and 'Strongly agree') seem evident, relations seem less strong for the ratings in between. Especially 'Somewhat disagree' sees relatively high scores for various emotions (both Positive as well as Negative); scores decline at the 'Neither agree nor disagree' level only to rise again after it. This can mean that some participants did not particularly learn anything, but nonetheless scored high in emotional impact (in this case, high for Positive and low for Negative emotions). This observation can potentially be attributed to the differences in reasons behind contributing to the contest; while for most participants participating to the contest was connected to an interest in the topic – as discussed earlier -, for some, social reasons were more important. It could be that participants indicating to 'Strongly agree' on knowledge increase where the ones to note that topic interest was most important for them, whereas 'Somewhat disagree' was scored highest for the ones indicating that social reasons were more important. In other words; while overall people with highest impact on knowledge were also the ones scoring positive on impact on emotions (high on Positive and low on Negative emotions), this does not mean that impact on knowledge was the reason for a higher score on emotions, nor vice versa. It might be that a combination of other factors, such as reasons for joining, are causing a positive impact for both aspects.

		1-11	12-20	21-35	36-60	60+	Average
Positive emotions	Happy	3.4	3.9	3.6	4.0	4.2	3.8
	Useful	3.5	4.0	3.5	3.4	4.2	3.7
	Relaxed	3.7	3.6	3.6	2.9	2.0	3.2
	Capable	3.4	4.1	3.7	3.3	3.3	3.6
	Inspired	4.1	4.3	4.6	4.1	3.5	4.1
	Energetic	3.9	4.0	4.0	3.2	3.2	3.6
	Healthy	2.9	3.0	2.9	2.7	1.4	2.6
	Positive	4.1	4.0	4.2	3.7	3.9	4.0
	Average	3.6	3.9	3.7	3.4	3.2	3.6
Negative emotions	Anxious	1.8	2.9	2.2	1.4	1.4	1.9
	Angry	1.8	1.3	1.5	1.1	1.0	1.3
	Depressed	1.8	1.1	1.2	1.1	1.0	1.2
	Insecure	1.8	1.3	1.5	1.3	1.0	1.4
	Judged	2.1	1.3	2.0	1.8	1.6	1.8
	Average	1.8	1.6	1.7	1.3	1.2	1.5

Table 4.6: Weighted averages for positive and negative emotions. Green shows the highest scores, red the lowest (reversed for the negative emotions) (n=82 for Happy, n=80 for Useful, n=79 for Relaxed, n=80 for Capable, n=79 for Inspired, n=77 for Energetic, n=77 for Healthy, n=82 for Positive, n=77 for Anxious, n=77 for Angry, n=77 for Depressed, n=77 for Insecure, and n=78 for Judged).

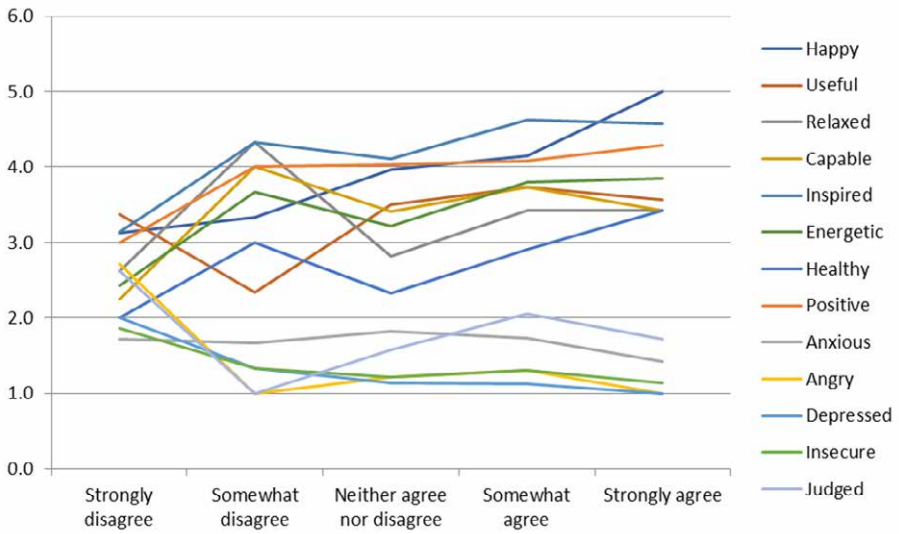


Figure 4.14: Weighted averages of personal emotions versus scores for impact in knowledge (n=82 for Happy, n=80 for Useful, n=79 for Relaxed, n=80 for Capable, n=79 for Inspired, n=77 for Energetic, n=77 for Healthy, n=82 for Positive, n=77 for Anxious, n=77 for Angry, n=77 for Depressed, n=77 for Insecure, and n=78 for Judged).

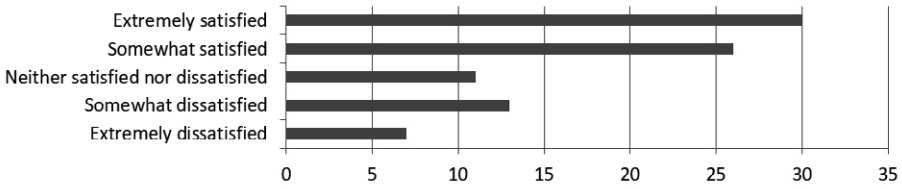


Figure 4.15: Satisfaction after taking part in the contest. Numbers are absolute (n=87).

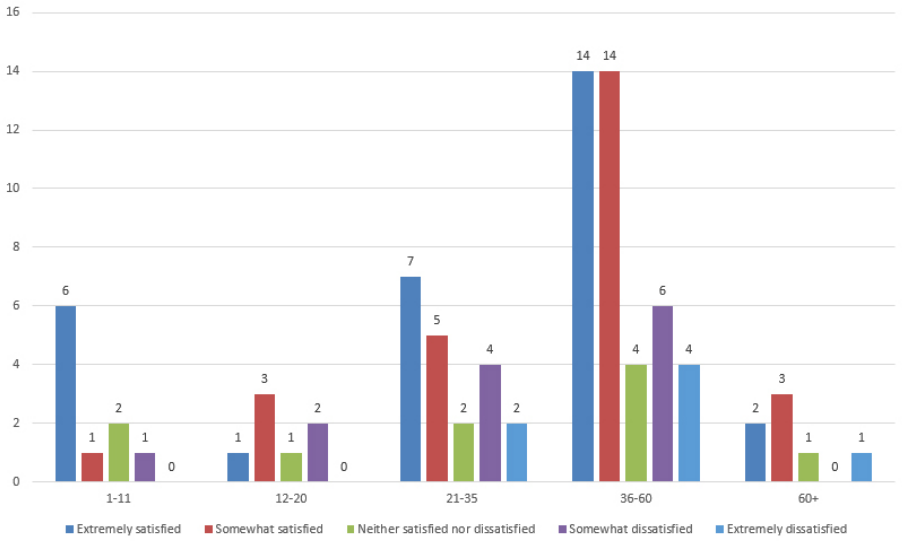


Figure 4.16: Satisfaction per age category. Numbers are absolute (n=86).

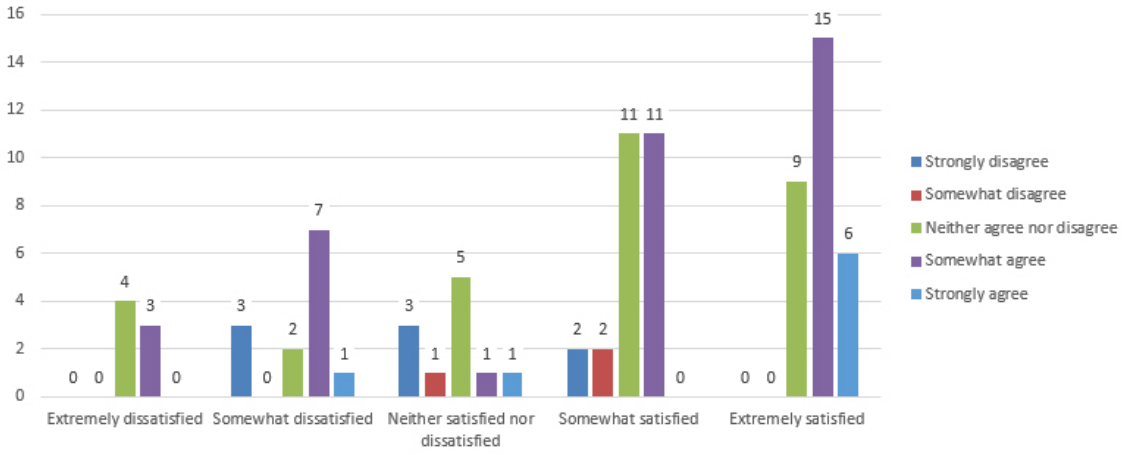


Figure 4.17: Satisfaction compared to impact on learning. Numbers are absolute (n=86).

Lastly, participants were asked to indicate how satisfied they were with their submission. Data shows that most participants were 'Extremely satisfied' with their submission at the end of the process (34,5%; figure 4.15). This is followed by participants indicating to be 'Somewhat satisfied' with their submission (29,9%). Hardly anyone was 'Extremely dissatisfied'.

However, while most participants indicated to be satisfied with the work they submitted, this does not mean that they are satisfied overall. For example, participants could be satisfied with the end-result of their artwork, for instance because they are proud of their skill development (perhaps a different technique used), or just because the artwork was to their liking, but this did not necessarily mean they were particularly satisfied with the contest. Nor do we know whether they are satisfied with their submission because they learned something new or because they met new people.

We do know, however, that this time it was not the age group of 12-20 years who were the most positive, but the youngest age group of 1-11 years (60% 'Extremely satisfied'; figure 4.16).

We can also observe that the participants that indicated to 'Strongly agree' with the statement that they learned something about archaeology due to this contest were the ones responding most positively on satisfaction (figure 4.17). However, we also see that some people who chose 'Somewhat agree' as level of learning impact were 'Extremely dissatisfied' with their submission (although most were actually 'Extremely satisfied'). Furthermore, 9 people were 'Extremely satisfied' with their submission, but neither agreed nor disagreed as to impact on learning. Although it seems that most people who were positive about their submission were also positive about impact on learning, this varies considerable between individual participants, indicating no strong relation between the two variables.

4.6 Wrapping up results

4.6.1 Research goals

This case study is built on a methodology which is similar to the DOMunder case study, and as such provided data comparable with DOMunder and Invisible monuments data (see chapter six). As such, we can conclude that the first research goal has been met. We can also safely conclude that the second research goal, 'to gain a more in-depth view of people's perception of archaeology and what it means to them', has been met as the data derived from the questions provides an insight into people's view of archaeology. It shows that most participants used an international archaeological subject for their artwork, and that they felt the most impact on pride for international archaeology. We also saw that many people learned something about archaeology, but for some the archaeological topic was less important or relevant; they seemed to join mainly to create (and showcase) art, either alone or together with someone else (for instance, their children). As previously stated, this second research goal was also part of the activity goals of the contest to generate insight into how people view and appreciate archaeology. Through the variety of art subjects which were submitted by the participants, and which were displayed in the Archaeology&ME exhibition in Rome, both

the NEARCH partners and visitors were given the opportunity to appreciate a large variety of inspiring views on archaeology and cultural heritage.

Answering to the third research goal, which is to see whether an artistic contest built on an archaeological theme could create sociocultural impact, and whether or not this impact is then the result of the nature of the activity, its contents, or a combination of both, is more complicated. It could be argued that this is the most important research aspect of not only this case study, but of the three case studies combined, as it revolves around the relevance of archaeology as a subject to generate sociocultural impact; conclusions might influence how archaeology is used as a sociocultural asset in heritage management, political decision making, and even in Sustainable Development. It seems that some aspects of sociocultural impact were influenced by the archaeological topic, for instance pride, connectedness, and education, while others were more influenced by the nature of the contest, for instance impact on creativity and skill development. Arguably, for most aspects discussed in this chapter, it was the combination of the topic and the nature of the activity that generated positive impact, for instance on happiness, motivation, and satisfaction. Results show that people are impacted differently depending on their age and (somewhat) their gender, but it is not clear whether this impact is different because of different perceptions or because of different standards. Furthermore, there seems to be a connection between impact on personal emotions and impact on knowledge. While causality cannot be established between these two variables, it can be argued that it is perhaps the combination of the nature of the contest with an inspiring subject that generated impact on both aspects, leading to high satisfaction levels. In other words; people participated because of the combination of an art contest with an archaeological theme. They knew what they could expect and could deploy their creative skills, which made it an enjoyable experience for them.

The fourth research goal was to gain insight into the archaeological connectedness between participants and a geographic area. As discussed, the majority of the participants of the survey thought their artwork to be international, but there was no clear connection noticeable between the art provenance and increase in pride for that specific region. There was however an overall increase in pride. Positive impact is also apparent in participants' connectedness to the three archaeological provenance regions, and some positive impact was even noted towards the people living there as well as the neighborhood of the art subject. While it looks like most participants felt an increased connectedness towards international archaeology, participants also indicated the provenance of their artwork to be mostly international. This could indicate that international archaeology is relatively more well known and hence usable as an art subject, and that people find it easier to feel a connection to well known international archaeological examples. This is also apparent in the Non-applicable scores for connectedness to neighborhood and local people; the majority of Non-applicable scores were made by participants with a local art provenance. Thus, it seems that participants identify more easily with international archaeology than with local or national archaeology when it comes to art.

As a fifth research goal, differences between art professionals and amateurs were studied. In total, 51 (54.3%) of the participants indicated not to be a professional artist; 28 (29.8%) of the participants were non-professionals (and 15.9% did not

know). There were differences noticed between professionals and non-professionals for the amount of time spent on artworks, with the former category spending considerably more time than the latter (although 25.5% of that category sill spent more than 10 hours in total). It was not clear as to why this difference exists; qualitative answers connected to this question did now provide a clear answer; it seems that both amateurs and professionals had a variety of reasons to spend their time, although it was noted that some professionals took the contest as an opportunity to showcase their work. Amateurs, on the other hand, saw the biggest increase in skill development. As it was made clear in the contest was meant for both professional and non-professional participants, we cannot say whether the contest succeeded or failed. Rather, we can conclude that the contest provided different opportunities for the two categories. This connects well to the hypothesis that the contest is used for a variety of reasons by different people, and that the combination of the nature and subject of the activity was its main attractiveness.

The last research goal was to see whether participants noticed an increase in their knowledge of archaeology, and to what variable(s) that increase can be contributed. An impact in archaeological knowledge was noticeable for all age categories. The strongest increase was seen in the youngest age category, and the least in the oldest age category. It is not clear why exactly the increase in knowledge happened, but we can assume that this is because participants did (some) research on their subject, as that is made clear through the qualitative comments. The fact that this increase is strongest for the youngest and least for the oldest, can be ascribed to the idea that the younger participants could still learn about archaeology while the oldest generation already knew a lot about the subject; this assumption is also supported by the qualitative comments. Learning was not the goal of the contest – that was to give people the opportunity to creatively express their perception of archaeology and to let them contemplate the role of archaeology in their lives. We can conclude that a creative activity with an archaeological subject, while not having education as its main goal, still increases people's knowledge. Arguably, the impact on education is more linked to the subject of the contest, whereas for several other 'side effects', such as social cohesion and health and Well-being, the nature of the contest was key. The exact significance of the topic versus the significance of the nature of the activity in relation to its impact remains, however, debatable.

4.6.2 Activity goals

The main activity goal of the contest was to gain an insight into European citizens perception of 'their' archaeology. While Italians were prominent in both submissions as well as survey responses in comparison to other nationalities, there was a variety of other nationalities present too. This means we can conclude that the contest struggled in its aim to create a diverse and non-oblique view of European participants; several reasons for this were already mentioned. However, as there were also many responses from other nationalities than Italian, both the contest and the survey still provided insight into the perception of archaeology and the impact of an archaeological activity on European citizens. As discussed earlier, the survey showed that many viewed their art subject as something international. Although we cannot connect each specific response with an individual submission, this shows that most people think of archaeology (even

if it might be a local subject) as something international, possibly European. They are also more connected to international archaeology, strengthening the importance of a European identity and international scope for heritage management.

The second activity goal was to encourage participants to express critical or positive points of view on archaeology and contemporary heritage management, especially in relation to Europe. While there where some positive answers noted about archaeology and the contest – for instance that the contest was useful in sharing the beauty of Italy, only one single survey participant mentioned the fact that the contest took place within a European framework. This means that the survey was not used by participants to share their opinions about Europe, positive or negative. Perhaps this can be better distilled from the artworks themselves. As said, they inherently do represent a particular view about European archaeology, and are sometimes annotated by the creator as well to provide even more information. Information about the artworks was not included in this case study, as data from the survey is treated anonymously and the link between the survey ID data and artwork could not be made. More information about the artworks themselves can be found within the Archaeology & ME catalogue, which is available online.[29]

29 http://www.archaeologyandme.eu/

5

Case study: Invisible Monuments

5.1 Introduction

This chapter discusses the third case study of this PhD research. As with the former two case studies discussed, this chapter too describes the impact of a public activity in archaeology on participants; The *Invisible Monuments*, *Digital Memory* event (described from here on out as the *Invisible Monuments* event). Though *Invisible Monuments* forms part of the NEARCH project, the activity is not connected to the You(R) Archaeology contest, nor is it connected to DOMunder. However, like the other two activities, it connects 'the public' with an archaeological site through a specific public activity built on specific goals. Furthermore, the organizers of the event have a similar goal; to increase people's connection to and interaction with archaeology, and thereby enhance their level of interpretation and increase their historical knowledge.

As in the former chapter, which discussed the *You(R) Archaeology* contest, the current case is built on two types of goals; research goals, specifically set for this PhD research, and activity goals, which were set by the organiser of the activity. The former goals will be discussed in section 5.2, the latter will be discussed in the methodology subchapter 5.4.2.

After the description of the research goals, the context of the activity will be explained in section 3. It provides background information about the activity which is later used for the creation of the methodological framework and will be referred to when discussing and interpreting the data.

As with the other two case studies, data were gathered through an online survey. In section 4, the procedure for the creation of the survey as well as its methodological framework will be described. Matarasso's framework on socio-cultural indicators is once again implemented as a foundation for the methodology and acts as a leitmotiv in terms of content discussion. As with the other case studies, the activity goals set by the organisation of the *Invisible Monuments* activity were leading in the creation of the final indicators and subsequent questions. Analysis of the data will be discussed in section 5; section 6 concludes the data analysis.

5.2 Research goals for this case study

Unlike the *You(R) Archaeology* case study, here we have only one general research goal, which is quite similar to the second research goal of the *You(R) Archaeology* case study:

to create a comparable case study in terms of methodology, scope, and data. This is necessary to make analyses and cross-comparisons between the different datasets possible. For example, the *Invisible Monuments* activity affects participants in their connection to archaeology, which is also one of the main activity goals. While different in scope and geographic setting, in this the *Invisible Monuments* activity is quite similar to the DOMunder case study: both activities invite participants to search for clues to learn more about archaeological objects, in order to make them feel more connected to local archaeology and history. Creating a commensurable dataset, based on one methodological framework, is a requirement for a valid comparison between data of the three case studies; this comparison will be made in the next chapter of this thesis (chapter 6).

In addition to the general goal, the case study is also built on certain specific research goals, namely:

1. To see whether participants were motivated enough to finish such an activity, and whether or not the trail actually increased their motivation;
2. To see whether such an activity increases participant's knowledge;
3. To see if there is a difference in data between touristic and residential participants;
4. To see if there is a difference in data from the different age categories as this was quite a technological activity (see next paragraph).

5.3 About the Invisible Monuments, Digital Memory event

This case study describes a unique public archaeological activity held in Thessaloniki (Greece) in the late summer of 2016. Fully titled '*Invisible Monuments*, Digital Memory', this event is part of the NEARCH programme and listed under activity A6: 'Promoting dialogue and social integration in a multicultural society. The case-studies of Saint-Denis and Thessaloniki' (NEARCH 2013, 4). As written in the NEARCH programme outline, the main objective of the activity was that 'The Aristotle University will pursue its field involvement in the framework of the educational policies and the museological approaches of various Greek museums, aiming at exploring the meaning of cultural diversity and social exclusion through the prism of the individuality of social groups, including immigrants as well as groups of different religion and ethnicity' (NEARCH 2013, 4). Just like the *You(R) Archaeology* contest described in the previous chapter, the *Invisible Monuments* activity forms part of the broader goal of the NEARCH project to understand the relation between (local) communities and archaeology and to find new ways of interacting with them. This specific activity was focused on understanding how various groups and individuals would react to a new and innovative way of interacting with and learning about archaeology. Through studying the effects on, and demographics of, the participants of the activity, the democratisation of archaeology and archaeological heritage management can be investigated.[30]

The main idea was "to combine digital social media and mobile phone technology to raise public awareness of antiquities in an innovative and unconventional way" (Theodoroudi *et al.* 2016, 1). This idea is largely based on the outcomes of Theodoroudi's Master Thesis called 'Invisible cities: Discovering the palimpsest of Thessaloniki with

30 Eleftheria Theodoroudi, personal comment 12-1-2017

the use of new technologies', which describes the dissonance between the availability and visibility of 'hidden monuments' within Thessaloniki and the absence of the public's connection to and memory of them (Theodoroudi 2016). The main objective of the *Invisible Monuments* event was to activate and invite passers-by, through interaction, and stimulate them to find out more about archaeological monuments in the city of the Thessaloniki. The assumption was that this act would help them to become more aware of the unfamiliar history of the city. Seven 'invisible' archaeological sites scattered across the city of Thessaloniki were chosen as the points of interest: The Basilica of Hagia Sophia, the Snakes' Column (Yilan Mermer), the Circus of Thessaloniki, remains of a Neolithic settlement, remains of Roman baths, the Cubiculum burial building, and the Sergios Pragamas' Temple. These seven archaeological monuments were chosen because of the relatively short, walkable, distance between them and their diversity in terms of conservation and visibility (figure 5.1). The monuments were classified into three categories (Theodoroudi *et al.* 2016, 2):

1. Monuments that are not physically preserved and hence not visible anymore;
2. Monuments inaccessible for the public, for instance because they are privately owned;
3. Monuments that are physically preserved and visible, but are invisible due to neglect or because they are part of everyday life.

To create a better connection between the public and the monuments, the public was provided with short but precise and functional information, including one or two photos of what the monument looked like in the past. Combined, these would explain both the unique and commonplace of those monuments; the interaction between passers-by and the monuments was to be "easy, fast, simple, cheap, and agreeable" (Theodoroudi *et al.* 2016, 2). These short texts, about 150 words per monument, written in both Greek and English, were put online on dedicated web pages per monument, on a website created especially for the *Invisible Monuments* event. The site was

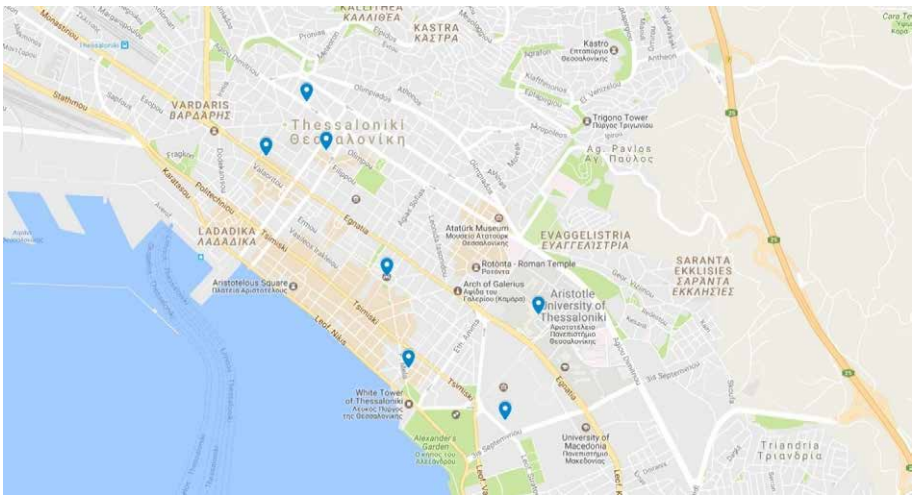


Figure 5.1: Map showing the location of the seven 'Invisible Monuments'. Copyright: Google, Google Maps.

geared towards fast loading of the individual monument pages as well as good visibility for mobile phones.[31] Apart from the short text and images, each dedicated monument page also contained an icon which visitors could interact with, leading them to a page with tips and suggestions, for instance on how to visit a certain museum if they wanted to know more about that particular monument. Because the interaction was meant to be fast and easy, QR technology was used, allowing passers-by to scan a QR code attached to, or close to, the monuments, leading them towards the specific monument webpage on the *Invisible Monuments* website. These QR codes were also distributed on posters placed across the city, but near the monuments, such as in shops, cafés, bars and bus-stops. Dedicated to the nearest 'invisible' monument, these posters were visibly recognizable as part of the Invisible Monuments activity, or instance by showing the logo and banner so that passers-by could recognize that specific poster was part of a larger set and broader activity.

In addition to the posters, flyers, and website, a social media campaign was initiated. It consisted of three different social media channels: Facebook[32], Instagram[33], and Twitter.[34] The Facebook page in particular saw major success, as the *Invisible Monuments* Page gathered over 1200 'likes'.[35] A Facebook 'Event' was also created to let the Facebook users know the dates, times, and starting location. On this Event Page, 124 Facebook users indicated to actually 'go' and another 120 indicated to 'consider' going. Less successful where the two other channels in terms of reach: The Instagram channel has over 60 followers and Twitter only 15. In addition to the social media campaign, a press release was distributed and several interviews were held on both local and national radio- and television-stations.

Initially, the activity's time span was restricted to one week. This official event was held between the 24th of September and the 2nd of October in order to coincide with the European Cultural Heritage Days which were celebrated on the 24th and 25th of September of 2016. Many participants have expressed their interest to do another round of the event, or even to open up the event and make it a permanent activity for both residents and tourists visiting Thessaloniki. The enthusiasm of some of the participants can be also be noted in the results of the survey which participants were asked to fill-out. This survey was the main source for gathering data for the current study. Both the creational process and the results of this survey will be discussed in the next subsection.

5.4 The surveys

5.4.1 Introduction

To gain insight into the sociocultural impact of participating in the *Invisible Monuments* event, a survey was created and put online for participants to fill out. The survey had two foci: the first was to gather data on the sociocultural impacts taking place, necessary for specific analyses for this PhD research. The second focus was to

31 http://invisiblemonuments.web.auth.gr/index_en.html
32 https://www.facebook.com/events/2084405061785282/
33 https://www.instagram.com/invisiblemonuments/
34 https://twitter.com/invis_monuments
35 Last date checked: 17-01-2017

gather specific data on visitor responses which the Aristotle University planned to use to evaluate the event and validate both time and monetary investments to the European NEARCH project.

Like in the *DOMunder* and *You(R) Archaeology* case studies, Matarasso's framework (1997) is used to create a set of indicators, divided over seven 'headers'. This means that this subchapter will follow the same lines in terms of structure and content. In the sections 2 and 3 the context of the data were described and the research goals were discussed. In this section, specifically in the next sub-section (5.4.2), the activity goals, set by the Aristotle University, the organizer of the event, will be described. Together, these two sets of goals form the backbone of the methodological consolidation. After the methodology sub-section, the results of the survey will be analysed (section 5). This analysis will mainly focus on the relevant data gathered from the survey and its relation to the methodology; some initial discussions on specific results and their relation to the other case studies will be raised as well, but the full comparison between case studies is done in the next chapter of this thesis (section 6).

5.4.2 Methodology

As described, the overarching research goal of this case study was to enlarge the data pool for comparison between the three individual case studies in order to analyse and compare sociocultural impact. To achieve this goal, the same methodological framework as for the other two case studies is used: Francois Matarasso's list of socio-ocultural indicators (1997). While each case study, including this one, has different activity goals, these can all be translated and applied within the same methodological backing, which is in turn based on the fact that the three case studies share a common research goal: the comparison of data. This means that this case study also makes use of the seven 'headers', but the survey questions are geared specifically to it. Therefore, the questions are different in terms of order and number from the previous two case studies.

The activity goals for the *Invisible Monuments* event were designed make people interact with certain monuments located in Thessaloniki, or, more specifically, to turn this hidden past into a place of living memory. This would lead to a better understanding of people's relation with the hidden past. Aristotle University used the city of Thessaloniki as a test case and seven *Invisible Monuments* where chosen as research markers. The activity goals set up where ranked from strict to wide, from 'main idea', to 'objective', ultimately leading to 'ambition', and vary in degree of complexity and achievability. For this paragraph, these specific goals will be listed ranked from 1 to 3, where the ambition goal is ranked 1; the idea goal ranked 2 and the objective goal ranked 3:

1. According to *Theodoroudi et al. (2016, 1*), the project's ambition was to turn 'hidden and forgotten sites into places of living memory, connecting them with people's everyday life by exploiting simple, user-friendly, and widely familiar digital technology';
2. The main idea was to 'combine digital social media and mobile phone technology to raise public awareness of antiquities in an innovative and unconventional way' (Theodoroudi *et al.* 2016, 1);

3. The main objective was to 're-introduce selected archaeological sites of Thessaloniki's rich archaeological heritage which remain unnoticed or unknown to the public because they are either hidden under the urban development without any indication of their place or have already been removed, or simply ignored within the chaotic clutter of the urban landscape' (Theodoroudi *et al.* 2016, 1).

It was noted that the most difficult part of the event would probably be to persuade people to actually get involved with these monuments, or, more specifically, to get them to interact with them (via the QR codes) to get more information and learn about their histories. Only after this was achieved, would it be possible to 're-introduce' these forgotten monuments into the collective memory as active inhabitants of the city' (Theodoroudi *et al.* 2016, 1). It is interesting that the word 'inhabitants' was used in this context because the NEARCH programme connects exploring the meaning of cultural diversity and social exclusion to this case study (NEARCH 2013, 4), but a focus on inhabitants of the city restricts this scope. The focus on residents of Thessaloniki is also made apparent as Theodoroudi, when referring to digital means to communicate and connect to the public, writes that they are 'preferred by the heritage managers but sadly ignored by the non-touristic public' (Theodoroudi *et al.* 2016, 1). Theodoroudi also writes that the goal of the survey was to 'understand the impact of our intervention on the interests of people and the importance of archaeology to them, in particular in this rather unconventional and non-conformist version presented' (Theodoroudi *et al.* 2016, 1).

We can summarize the above into the goal of raising awareness in the residents of Thessaloniki so that they can learn about, and possibly and hopefully renew, their connection with the city's history. This fits well within the overall NEARCH project goals, especially those listed under theme A of the project's programme which focusses on 'gathering valuable data for a better understanding of the public image of archaeology and heritage and their importance in the daily life of the Europeans' as well as the suggestion to 'different mediation actions aiming to attract the attention of the public, both young and adult, towards the archaeological sites that surround them or that they discover during their travels, to stir impressions, emotions, and testimonials' (NEARCH 2013, 3). However, the inclusion of different groups into this research, such as immigrants and groups of different religion and ethnicity, was not explicitly mentioned, nor made apparent throughout the event, though of course everybody was welcome to attend.

This paragraph deals with the implementation and application of Matarasso's indicators (1997) on sociocultural actions for the purpose of creating a methodological framework. The way in which these are formed is not different from for the other two case studies, and its use as methodological framework holds the same importance and weight. Matarasso's headings – Local image and identity, personal development, social cohesion, community empowerment and self-determination, imagination and vision, and health and well-being – are taken as vantage points for the creation of relevant sociocultural indicators and survey questions (table 5.1).

Most of the questions formulated in the last column ended up in the online questionnaire which was hosted on the website of the *Invisible Monuments* event and was open to every participant of the event to fill out. The creation of the survey was a

Matarasso's headings	Tier 1 Applicable actions based on Matarasso's list	Tier 2 Specific *Invisible Monuments* actions	Relevant sociocultural indicators	Possible questions
Local image and identity	Develop pride in local traditions and culture. Help people feel a sense of belonging and involvement. Improve perceptions of marginalized groups. Make people feel better about where they live.	Involve residents with the city's history Increase resident familiarity with the city Increase awareness about Thessaloniki's invisible or hidden monuments	Number of participants and whether they are resident or tourist Number of international/ national tourists Increase in pride for local/national/inter-national archaeology	Do you consider yourself to be a tourist or a resident? Do you feel proud of (your) local/national or international archaeology after participating in the event? Do you feel more connected to local/national/international archaeology after your participation?
Personal Development	Increase people's confidence and sense of self-worth. Contribute to education. Help build new skills and work experience Contribute to people's employability. Help people to develop or take up careers in archaeology.	Educate people about the history of Thessaloniki Increase knowledge about archaeology in general Increase participant skills in using digital media Increase understanding of the value of archaeology	Increase in archaeological knowledge Level of contribution to personal traits Number of participants indicating to want to use technological innovation for new projects as well. The number of participants indicating to better understand the value of archaeology Time involvement	Did you learn something new during your participation? Did you learn more than you expected to? How much time did you spend on the event? After participating in the event, do you feel that you now better understand the value of archaeology? Are you more confident to talk about it?
Social Cohesion	Develop community networks and sociability. Provide a forum for intercultural understanding and friendship. Develop contact between generations.	Stimulate participant connection with the history of the city of Thessaloniki Stimulate teamwork on completing the event; facilitate meeting with other people (Re)create places of memory	Connectedness to the area of the city of Thessaloniki and its people Number of participants indicating to have teamed up for the event Number of participants meeting new people Connectedness to local/national/inter-national archaeology	Do you feel more connected to the area and its people? Did you meet new people during your participation?
Community Empowerment and self-determination	Encourage local self-reliance and project management. Be a means of gaining insight into political and social ideas.	Instill enthusiasm for archaeology and the history of Thessaloniki Stimulate completion of the event by introducing a variety of incentives	Number of participants indicating to want to learn more about archaeology Number of completed trails	Do you feel that you want to learn more about archaeology after finishing the event? Did you complete the event?
Imagination and vision	Allow people to explore their values, meanings and dreams.	Stimulate artistic and verbal commentary on archaeological monuments, for instance via Social Media	Number of comments and photos contributed	-
Health and well-being	Have a positive impact on how people feel. Provide a unique and deep source of enjoyment – part of a person's quality of life.	Stimulate physical movement Increase satisfaction	Level of satisfaction Level of contribution to personal emotions	How much did participating affect the following emotions [happy/useful/etc.]? Did you feel satisfied after your submission?

Table 5.1: Sociocultural indicators for the You(R) Archaeology contest. After Matarasso (1997) and the North East Regional Museums Hub Tool.

collaborative effort of the School of History and Archaeology at Aristotle University and the author of this thesis. The former party focussed on getting insights into participants' reaction and opinions on the event, the latter focussed on gaining insight into the sociocultural effects, as described above. Initially, the idea was to host two separate surveys, but in order to make it easier and faster for participants to the event share their ideas, it was decided to merge them into one survey. This meant, however, that the survey was somewhat longer than is generally considered effective for an online survey.[36] The survey had 29 questions in total, including demographics. It was not made clear to the survey participants that there was this difference in focus. The questions were both stated in an open and closed form, with the former geared towards giving respondents an opportunity to annotate a previously given closed question. The survey was put online on 'Google Forms'[37], an online and free form and survey tool by Google and was prepared in both English and Greek. The survey was open from the 23rd of September until the 31st of December, giving participants ample opportunity to fill out the survey after their visit in late September and the beginning of October, but giving other people, who for instance could not attend the initial event date, the opportunity to do the event at a later stage and fill out the survey as well. However, most of the survey responses (194 out of 196) were gathered on or between the actual event days.

In contrast to the DOMunder and *You(R) Archaeology*, for this online survey there was no pool of e-mail addresses available to send the survey to. Instead, participants of the event were expected to fill-out the survey. To stimulate participants to fill out the questionnaire it was communicated, both on the website as well as in the intro of the survey, that the first 100 submissions would receive a small gift. However, this meant that there was no clear estimate of how many responses would be gathered ultimately. While we know that the website of the event, which hosted all the necessary information for participants to complete the event, was visited over 5000 times in a span of two weeks, this does not automatically have to result in that number being the actual number of event participants and even less likely the number of participants who actually completed the event and filled out the survey. Unfortunately, it was not noted how many people actually participated in the event. However, there were 5000 visits on the *Invisible Monuments* website, with 68% of the visits performed from a mobile device, such as a tablet or smartphone, during the time of the tour – between the 24th of September until the 2nd of October. We can assume that those visits were made by people doing the tour, which results in a total number of 3400 visitors. With a total of 196 survey responses (5 in English and 191 in Greek), this means that the survey is not representative of the total visitor population (with a 95% confidence interval this results in a 6.8% error margin).

5.5 Results

5.5.1 Demographics

Four age groups were chosen for the questionnaire. In total, 196 participants responded to this question (also the total number of participants overall) with 12 participants

36 See https://www.surveymonkey.com/blog/2011/02/14/survey_completion_times/

37 https://docs.google.com

Figure 5.2 (right): Distribution of age groups (n=196).

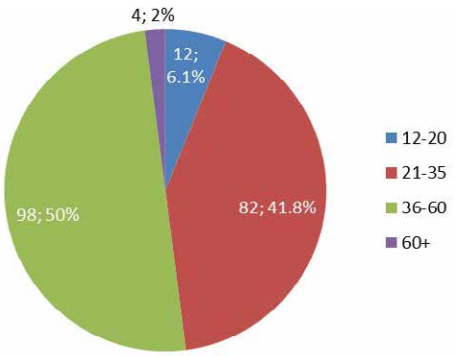
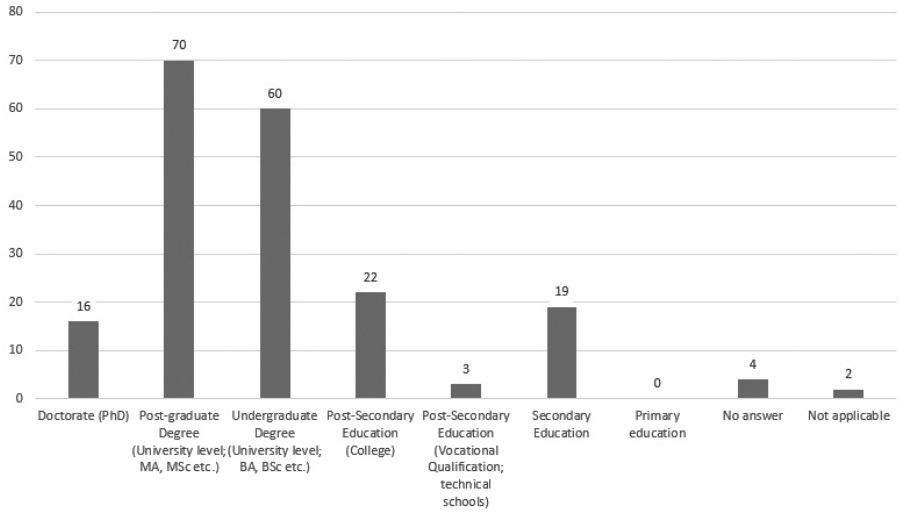


Figure 5.3 (below): Highest education level. Absolute numbers (n=196).



for the age category of 12-20, 82 for 21-35, 98 for 36-60 and 4 for Older than 60. This means that the relative size of the age groups of the participants varied considerably, but the majority was aged between 36 and 60 years old (50%), followed by the age group of 21-35 (42%, figure 5.2). Only 6% was younger and 2% older than those categories. The high number of 'middle aged' participants can be the result of the fact that many participants indicated to be students who were informed about the activity through their institution. Indeed, according to the organizers, the four universities of Thessaloniki were the focus of the PR-campaign.[38] Gender-wise it seems that a majority was female (58%) versus 37% male participants; 5% did not want to disclose information about their gender.

The observation that university students were participating in the activity can be supported by the data on education level (figure 5.3). 30.6% (60 participants) had obtained an undergraduate degree, 35.7% (70 participants) had obtained a master's degree and even 8.2% (16 participants) indicated to have obtained a PhD-level degree. In 2013, there were a total number of 35.457 doctorate holders in Greece, aged under 70, who obtained their degree between 1990-2013 (EKT 2015).

38 Eleftheria Theodoroudi, personal comment

Compared to the latest census from Greece (2011 – Hellenistic Statistical Authority 2016), this means that about 0.3% of the total Greek population had obtained a PhD degree. There were no statistics found for the total number of Master's degree holders in Greece. However, we can estimate that 36% Master's degree holders and 30.6% Undergraduate degree holders within this survey population is relatively high compared to general population amounts.

In total, 119 people provided information about their profession; 52 professions could be distilled. The number of people working in education and connected to history was quite high: 17 out of 119 (14.3%) indicated to be archaeologists and 20 (16.8%) to be teachers. The 50 other professions mentioned scored single or double numbers, but none of them more than 3 per profession. Included were, for instance, lawyers, doctors, mathematicians, and biologists. These professions are arguably connected to a higher education, but there were, for instance, also a barman and waiter present. While we cannot connect profession with education level directly, these numbers, together with the fact that some respondents indicated to be university students, indicate that higher educated people are more represented than lower educated people in the *Invisible Monuments* activity.

It seems that the activity has reached a new audience in terms of age, as many participants are younger than what is mostly seen in archaeological activities, but in terms of education, the activity fits with the overall picture that mostly higher educated people visit archaeological activities (Kadja *et al.* 2017; Maeer *et al.* 2016).

In total, 185 out of 196 participants (94.4%) indicated to have Greece as a country of residence, the other 5% came from a total of 8 other countries and one person (0.5%) gave no answer to this question.

To see the effects of the *Invisible Monuments* event on participant's knowledge of, and connection to, the various monuments located in Thessaloniki, as one of the main goals of the event, we wanted to know how familiar they already were with the monuments before the actual participation. As it turns out, 84.2% (165) of the participants knew one or more of the monuments present; 15.3% (30) did not and 1 person (0.5%) did not know how to answer this question (figure 5.4). The two most well-known monuments were the circus (87.9%, 152 of the participants were familiar) and Basilica of St. Sophia (77.5%, 134 were familiar).

The circus is not visible anymore and hence cannot be visited, but recently the site was part of a reconstruction which was displayed at the info center at the Galerius Palace Complex, and hence saw public exposure through YouTube and social media. The Basilica of St. Sophia is buried under the Byzantine Temple of Hagia Sophia and the surrounding buildings. The remains of the Basilica's baptisteries form part of the Hagia Sophia church which is visible and can be visited, and is even listed, together with other Byzantine and Paleochristian monuments, as World Heritage.[39] This means that visibility of a monument is not necessarily a requirement for it to be known, but rather that public exposure is likely to make it familiar. Perhaps good reconstruction representations or great storytelling prove more efficient and powerful to feed the imagination and the expectations of people rather than the monument itself.

39 http://whc.unesco.org/en/list/456

Figure 5.4 (right): Results for the question "Were you familiar with the monument presented here?" (n=196).

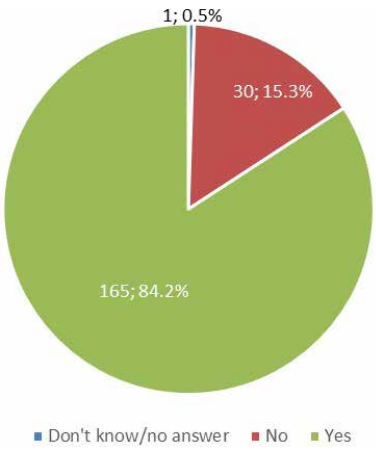
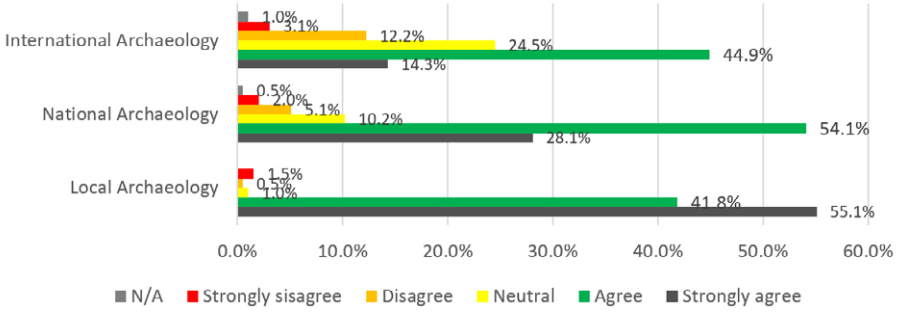


Figure 5.5 (below): Relative scores for connectedness towards local, national and international archaeology (n=196).



5.5.2 Local image and identity

Just as in the You(R) Archaeology case study, people were asked whether or not the activity increased their connection, towards local, national, and international archaeology.

Results show that most people felt a stronger connection with local archaeology: 41.8% (82) agreed and 51.5% even Strongly agreed (108) to the statement in connection to Local archaeology (figure 5.5). They felt less of a connection for National archaeology (54.1% Agreed (106) and 28.1% (55) Strongly agreed) and even less for international archaeology (44,9% Agreed and 14,3% Strongly Agreed). This means that the local focus of the event indeed resonated with its participants.

While we already saw that the same pattern occurred in data for 'pride', this data makes clear that people felt connected to archaeology much more than they felt proud of it. This could perhaps be related to the same observation noticed for valuation versus confidence in talking, where we also see a difference in handling information, more inward than outward.

The high scores for people's connection to local archaeology are also apparent when we cross-compare connection with age categories. Overall, it seems that the age groups scored equal, with the exception of the youngest age group, which was stronger in its connection towards International archaeology, scoring no 'negative' results. This also counts for the oldest age groups' scores for National archaeology, although with only 4 people scoring, this image can be distorted.

People who filled out the questionnaire also indicated to feel more connected to the people living in the area of the monuments. Together, more than half of the participants either Strongly agreed (48; 24.5%) or Agreed (82; 41.8%; figure 5.6). Thirty-three (16.8%) were neutral on this; 25 (12.8%) Disagreed and 1.5% (3) Strongly disagreed. 2.6% (5) of the participants thought this question was not applicable to them. This means that these people did not only feel a connection towards a monument, but extended this connection to the people living there. Whether this counts for only the people living close to the monuments, or also for the total population of Thessaloniki we do not know, as the boundaries for this statement were not asked, nor were they commented upon. It seems that an event such as this one, with mostly local participants, set in a local context, actually has the potential to connect not only with objects but also with its people. This is important information for future events, especially taking into consideration that connecting with people in the area was not part of the main goals of the event.

Figure 5.6 shows that in terms of connectedness to Local and National archaeology there were no big differences between the age categories. For International archaeology, however, we see that the youngest generation (12-20) feels much more connected when compared to the older generations (21-35, 36-60) and especially compared to the oldest generation (60+).

Out of the 196 participants (including visitors from abroad), there were 40 (20.4%) who indicated to be tourists; 143 (73%) considered themselves to be residents of Thessaloniki (figure 5.7). The slight majority of female participants is present in both tourist (52.5%, 21 females) and resident (60.1%, 86 females) numbers. The fact that almost three-quarters of the participants hailed from Thessaloniki means that the goal of the activity, namely to catch the Thessalonian 'passers-by', was achieved.

As can be seen in the table below, most participants experienced a positive impact in their pride for 'Local', 'National', and 'International' archaeology, as they scored 'Agree' the most for the former two on the question "taking part in this activity increased my pride for…" (figure 5.8). 'Strongly Agree' followed as second place for both Local and National archaeology, but third for International archaeology. In contrast, people both 'Disagreed' and 'Strongly Disagreed' least for Local but most for International archaeology, and also felt most neutral for the latter. This strengthens the hypothesis that people felt the strongest impact in pride for Local archaeology in particular and least in International archaeology.

Interestingly, when increase in pride is compared to the age categories, we see that the youngest group shows the strongest impact for International, National, and Local archaeology (figure 5.9). This group indicated to feel the most pride for International archaeology, with 91.7% (11). It seems that this age group connects their heritage, or their identity, with pride more easily and more strongly. However, since only 12 persons belonged to the age group of 12-20, these numbers have to be interpreted with care. The age group of 36-60 was the second highest in score overall. Although the age category of 60+ seems to vary considerably between international and national versus local archaeological regions, this is due to the fact that in total only 4 persons belonged to that age group. The age group of 21-35 seems to have felt the least increase in pride overall. Note that 'Agreed' is an accumulation of the scores for Agreed and Strongly Agreed; 'Disagreed' an accumulation of the scores for Disagreed and Strongly Disagreed.

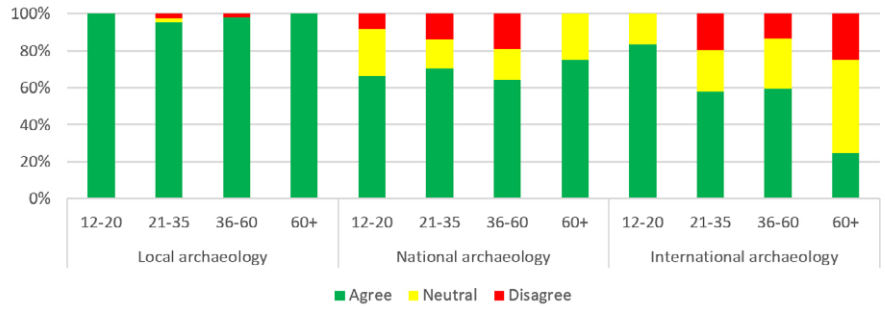


Figure 5.6 (above): Relative scores for age categories versus connectedness (n=196).

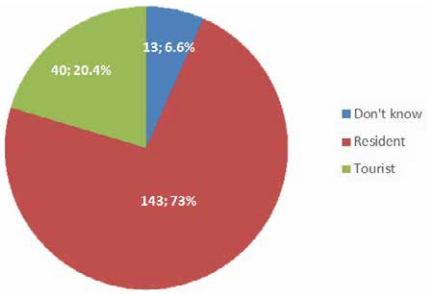


Figure 5.7 (right): Tourists versus resident distribution (n=196).

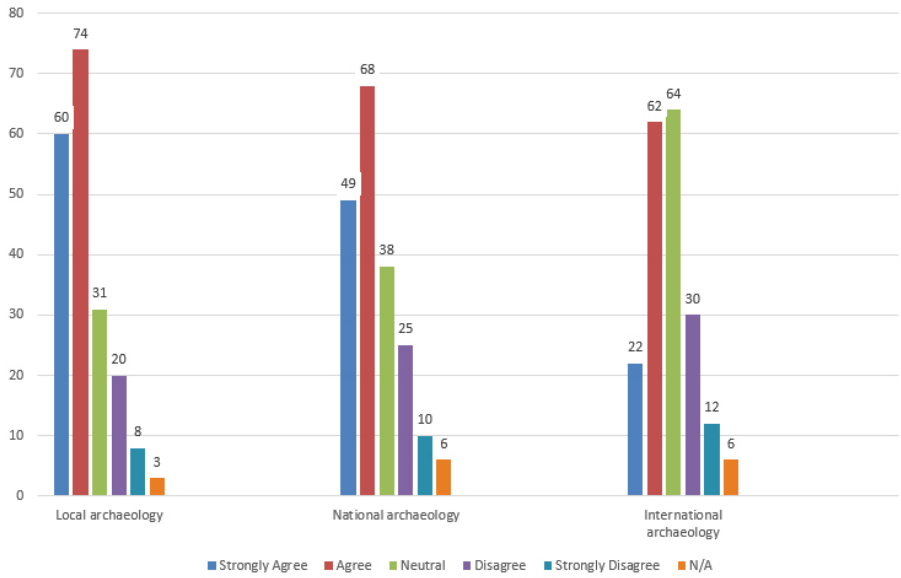


Figure 5.8: Figure showing both absolute numbers for increased pride in archaeology (n=196).

5.5.3 Personal development

The seven monuments were located quite close to each other; about two hours were needed to complete the tour. The biggest group of people (92 out of 196; 46.9%) spent less than 1 hour to visit the monuments (figure 5.10), which would probably not be enough to visit all monuments;[40] 71 people (36.2%) spent between 1 and 2 hours;

40 Eleftheria Theodoroudi, personal communication

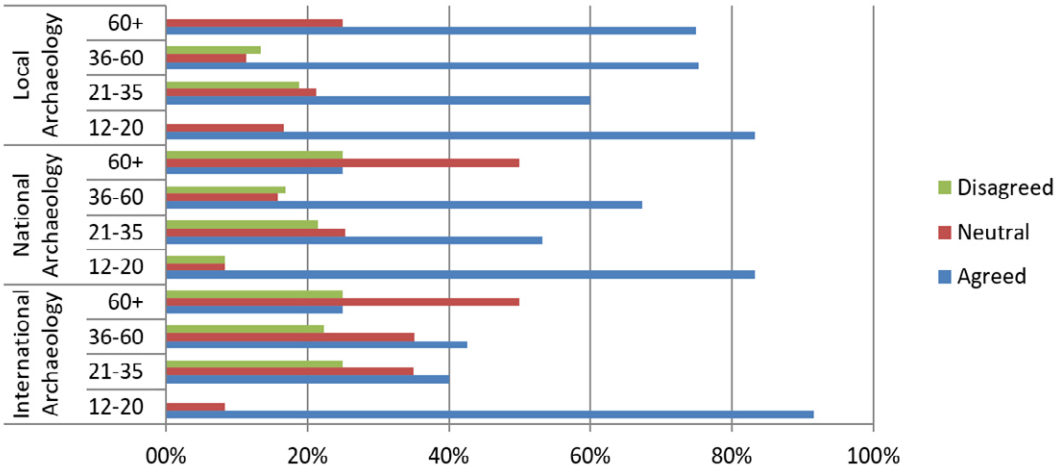


Figure 5.9: Relative increase in pride compared with age categories (n=196).

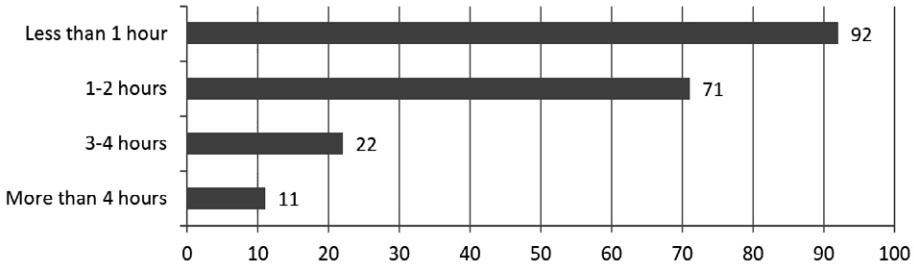


Figure 5.10: Time people spent on the activity. Absolute numbers (n=196).

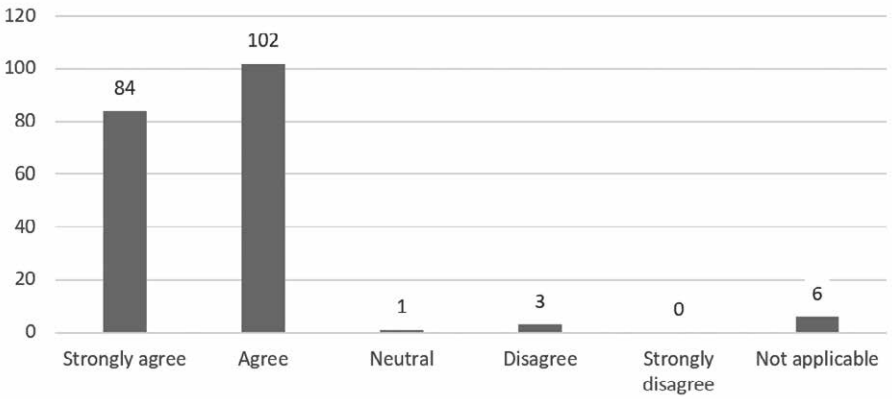


Figure 5.11: Absolute scores for knowledge increase (n=196).

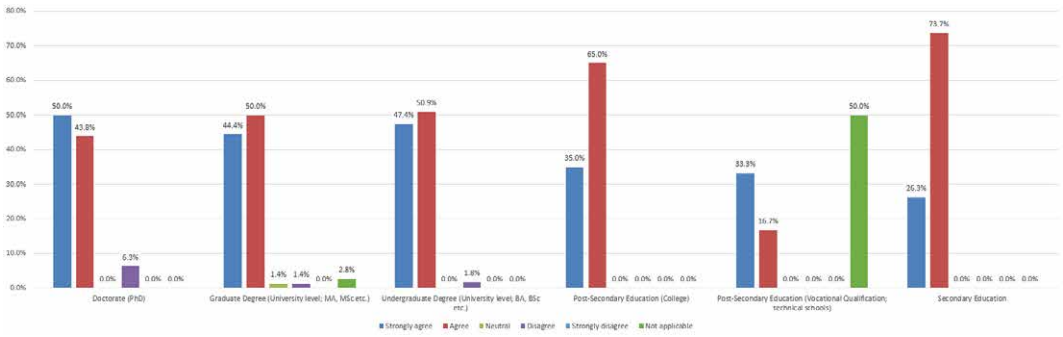


Figure 5.12: Relative scores for knowledge increase versus education level (n=190).

22 people (23.9%) between 3 and 4 hours and only 11 people (5.6%) spent more than 4 hours in total. There was virtually no difference between the gender groups.

The question asked about time spent on the activity, and not how long it took to complete it. Hence, this data cannot be used to see if people actually completed the activity within the given time or if they quit prematurely. The relatively fast pace of the event fits well with the objective to use digital and mobile media to raise awareness in a unique way: people were able to directly search for the relevant information on their mobile phones using QR codes and a specifically tailored website. The amount of information on the individual monument pages was restricted to about 150 words per monument, including links to other websites for more information.

Although increasing the knowledge of participants of the *Invisible Monuments* activity was not specifically mentioned in any of the three goals, it can be considered to be part of the goal to raise public awareness on antiquities. Furthermore, increase in knowledge is included in this survey as it provides data for comparison with the other case studies. Just as in the *You(R) Archaeology* contest, participants of the survey were asked to answer to the statement 'Participating in this activity increased my knowledge of archaeology' and could answer through a 5-point Likert scale, ranging from Strongly disagree to Strongly agree.

Results show that most participants learned something about archaeology, totalling 94,9% (186) with Strongly Agree scoring 42.9% (84) and Agree 52% (102; figure 5.11).

For the *Invisible Monuments* activity, it seems that people indicating to have learned the most are the ones that have a higher level of education (figure 5.12), those with a doctorate scoring 50% on Strongly Agree. This observation is strengthened by the fact that there seems to be a difference in scores between academics (Doctorate, Postgraduate, and Undergraduate) and non-academics (Secondary, Post-Secondary and Vocational) with the former scoring more Strongly agree than the latter.

The numbers shown in figure 5.12 are relative for each education level, meaning that the difference in number of people per category has been taken into account. However, one would expect that the relative high number of highly educated people, including those working in archaeology and the museum world – as indicated in the survey – would have a better knowledge than those not working in the sector. This would lead to the idea that people with a lower 'general knowledge' about the city and

its history could in principle learn most. According to the numbers shown here, this assumption is disproven.

People who indicated to have learned the most (in other words, strongly agreed), also spent the most time on the activity, compared to those less positive in their educational increase: 14.1% indicated to have participated between 3-4 hours and 9% more than 4 hours (figure 5.13). People who agreed scored higher in the 'Less than 1 hour' category and lower in the '3-4 hours' and 'More than 4 hours' categories; 77.8% of the Neutral people spent less than 1 hour; 66.7% of the people who disagreed spent less than 1 hour and the 1 person who Strongly disagreed spent between 1 and 2 hours. The above means that although people who Strongly agreed spent the most time in total, it doesn't mean that spending more time was more effective; 41%, the largest section of that group, spent less than 1 hour. As the majority of the people scored in the 'Less than 1 hour' category, regardless of score level, it shows that time, in this case study and contrary to the *You(R) Archaeology* case study, is not a great indicator of the perceived educational impact of the experience. Furthermore, the number of people who scored Neutral, Disagree, and Strongly disagree was low, possibly skewing the results.

Results for the question discussed above – "Participating in this activity increased my knowledge of archaeology" – was included in the survey specifically because the exact same question was asked of participants for the *You(R) Archaeology* activity, meaning that resulting data can be easily compared. This comparison will be made in chapter six of this thesis. The *DOMunder* survey included a similar subject, linked to the personal development but stated in a different way. Participants were asked if they learned something new and if this was more than expected.

Interestingly, people scored lower than for the other, comparable, question about knowledge. However, this is probably due the fact that the categories here are different. People were given only two 'positive' options in the 'knowledge increase' question (Strongly Agree and Agree), whereas here they had the option to be more nuanced as they had four 'positive' answers at their disposal (Extremely, Moderately, Somewhat, and Slightly). As discussed in the *DOMunder* chapter, these particular categories included as Likert-scale have their problems, but it is interesting to see that when people are given more options to answer, as in more nuanced categories, they take that opportunity. Because of the difference in scales and interpretation, and because the question itself is phrased differently, the 'Strongly agree' and 'Extremely' categories for both questions, for instance, cannot be compared directly but should be treated individually.

In this sense, with 27% (53) of the people scoring the highest category possible and with 56.6% (111) second highest for 'learning something new', people are still overall quite positive about the impact on learning (figure 5.14).

Almost the same scores were noted for 'learning more than expected', although these were overall slightly less positive, with more scores in the Somewhat and Slightly categories. Indeed, a Wilcoxon Signed Ranks test between 'learning something new' and 'learning more than expected' with n=196 and p=<0.001 gives a Z=-3.272, meaning that there is a no statistically significant difference. This means that the content provided by the activity organizers about the monuments was quite new for the participants, even while they indicated to be familiar with them as discussed previously.

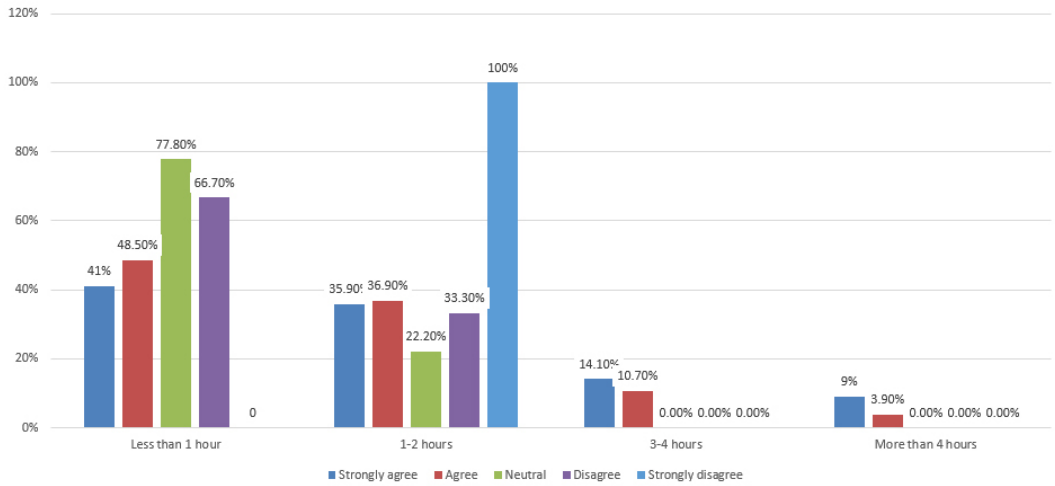


Figure 5.13: Relative scores for knowledge increase versus time spent (n=194).

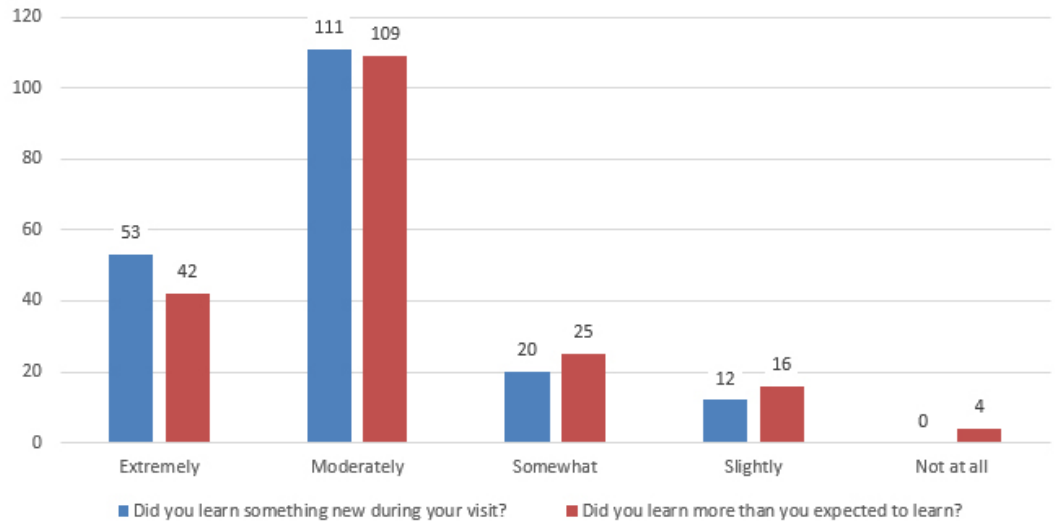


Figure 5.14: Absolute and relative scores for the statements "Did you learn something new during your visit"? and "Did you learn more than you expected to learn?" (n=196).

As with the other case studies, here too, people were asked about the impact of participating on their personal attributes, such as views on religion and self-confidence. Just as the in the other case studies, to come to a comparable and easy to interpret figure, answer categories (Not at all, Slightly, Somewhat, Moderately and Extremely) were given weight from 1 to 5, respectively, and were multiplied by their individual counts per attribute. Results per attribute were then cumulated and divided by 196 – the total number of answers to this question, giving a weighted average for each attribute. 'Understanding of the past' scored highest with a 3.8 on average (table 5.2). 'Sense of Involvement' also scored relatively high with a 3.5, as well 'Self-consciousness' (3.4). A second group can be noticed ranging from 2.4 to 3.0 on average, including 'Views on

	12-20 years	21-35 years	36-60 years	Older than 60	Average
Motivation	3.2	3.4	2.2	3.3	3.0
Self-consciousness	3.4	3.2	3.0	4.0	3.4
Creativity	3.0	3.3	2.8	2.8	2.9
Self-confidence	3.3	2.7	2.6	3.3	3.0
Sense of involvement	3.5	3.4	3.5	3.5	3.5
Self-acceptance	2.8	2.2	2.0	2.5	2.4
Views on life	2.9	3.0	2.6	2.8	2.8
Views on religion	2.5	2.2	2.5	2.3	2.4
Understanding of the past	3.5	3.9	4.0	4.0	3.8
Average	**3.1**	**3.0**	**2.8**	**3.2**	**3.0**

Table 5.2: Weighted average scores for personal attributes versus age category (n=196).

religion' (2.4), 'Self-acceptance' (2.4), 'Self-confidence' (3.0), and 'Views on life' (2.8). These results seem to fit well with the goals of this activity, which were geared towards creating an educational experience, where people feel involved with the monuments and the history of Thessaloniki. It seems that the activity was effective in positively impacting on these attributes, and with a 3.0 score on self-consciousness, it seems that most people also reflected on the new information, assimilating it on a deeper level. The attributes not addressed in the activity goals scored lower.

The age groups of 60+ scored highest with a 3.2 point weighted average. This was followed by the age group 12-20 with 3.1; 21-35 scored a 3.0 and lastly the age group 36-60 with a 2.8 average weighted score. There were also some interesting differences visible in the attributes between the age categories, most notably for motivation, self-consciousness, self-acceptance, and self-confidence. The largest, a 1.2 difference in weighted average, is found within the motivation attribute between the age categories 21-35 and 36-60.

The fact that the age group 36-60 scored lowest on average for almost all categories, and indeed lowest overall, is interesting. It could mean that people in that age category were simply not so easily affected in general, but it could also be because of the type of activity – a digital and perhaps non-traditional form of education. Maybe people from those age groups find these types of activities less impactful than others. However, as this was not asked specifically in the survey, at this moment such hypotheses must remain speculation.

The last question linked to personal development included in this survey is about whether the activity contributed to people understanding the value of archaeology better, and if people felt more confident to talk about archaeology afterwards.

The *Invisible Monuments* event seemed to have increased peoples' ability to better understand the value of archaeology, as the majority agreed to this statement with 63.3% (124 – figure 5.15); 25% (49) Strongly agreed, 9.2% (18) was Neutral and only 2.6% (5) Disagreed.

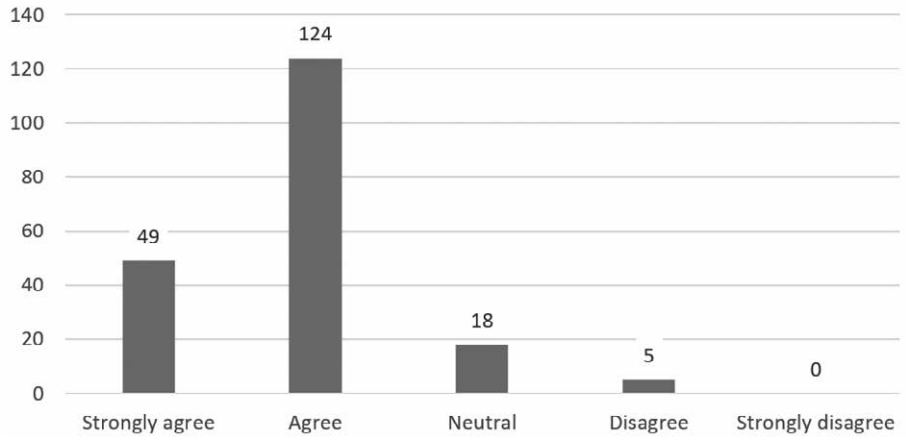


Figure 5.15: Absolute scores for the statement "This activity contributed to your ability to better understand the value of archaeology" (n=196).

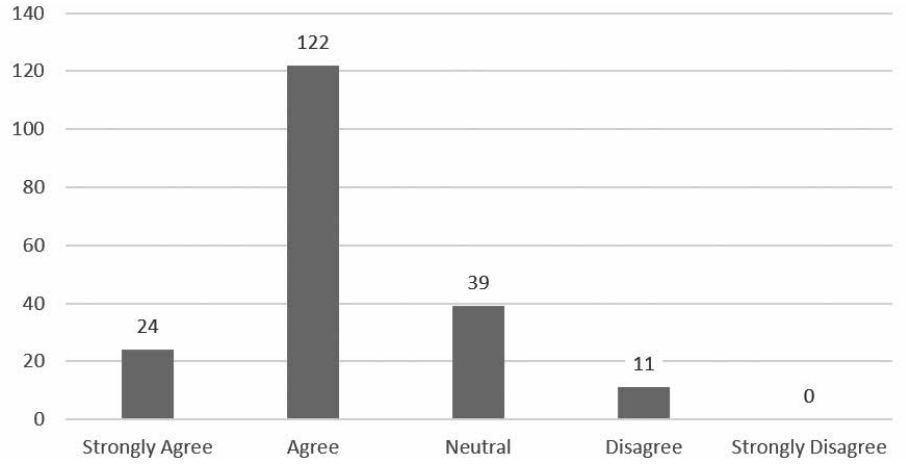


Figure 5.16: Absolute scores for the statement "You feel more confident talking about archaeology after this activity" (n=196).

People scored somewhat less positive on this statement than on the one about knowledge increase. This could indicate that people understood the difference between the two: knowledge increase is about education and factual information, valuation is about seeing the larger potential, use, and value of archaeology in a wider context. While people scored a little less positive on the latter, a large majority – 88.3% – still indicates that they now have a better understanding of the value of archaeology. While this was not one of the explicit goals of the event, valuating archaeology is woven into raising awareness and the creation of a personal connection with the monuments, as valuation is personal and connected to people's views and identity.

Results show that the event helped increase people's ability to better understand the value of archaeology, but they were not so confident to talk about it; 12.2% (24) of the people Strongly agreed and 62.2% (122) Agreed to the statement 'You feel more confident talking about archaeology after this activity'. While less positive than for the

previous statement, it still means that for almost three quarters of the total population the activity helped them to talk more confidently about archaeology (figure 5.16).

This increase in confidence can be connected to the fact that many people indicated to have learned a considerable amount about the archaeological and historical monuments of Thessaloniki, and to have a better understanding of its value. In other words, there seems to be a relation between the fact that people indicate to better understand the value of archaeology and their confidence in talking about it. A spearman's Rho correlation test confirms this notion and shows a correlation co-efficient of .526 with very high statistical significance ($p<0.0001$, $n=196$).

5.5.4 Social cohesion

People were asked if they participated in the event alone or with others; 196 responded. The majority of the participants of the questionnaire went to the event alone (64.8%); 35.2% went with others (23% with one other, 5.1% with two others and 7.1% with more than two others). Furthermore, 19.9% did indicate to have met new people during the event, 80.1% indicated to not have done so. While the event was not organised as a social event in and by itself – rather it was focussed on personal connection with the monuments – it is interesting that some people took the opportunity to go with someone else. In fact, almost 20% actually met other people during this event and as this question specifically stated "new people" we can assume that these 'new people' were not part of their initial company. It would be interesting to see if these numbers would change if an archaeological activity was geared more towards social inclusion rather than individual development. A comparison with the *DOMunder* activity, in this sense comparable to the *Invisible Monuments* event as that event was also geared towards individual development, and the *You(R) Archaeology* event, is done in the next chapter.

5.5.5 Community empowerment and self-determination

People were asked about their reasons for joining and were given the freedom to answer openly. Not all survey participants responded to this question; 156 (79.6%) did, 40 did not (20.4%); 3 answers were not connected to the question, leaving a total of 153 answers to be analysed. The remaining answers were categorized into 6 different categories (figure 5.17).

The largest group of people, 68 (44.5%), indicated to have joined because of a general interest in the activity. 21 people specifically mentioned that they wanted to

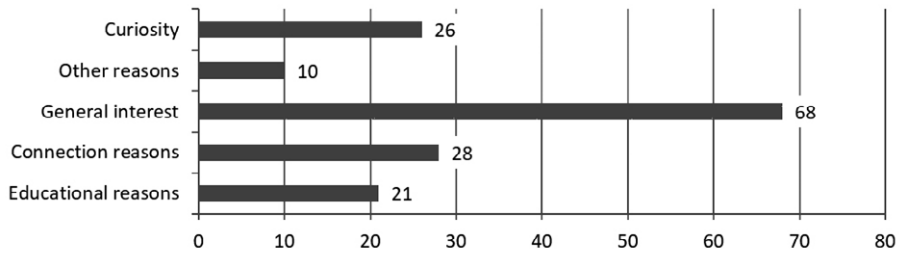


Figure 5.17: Reasons for joining. Absolute numbers (n=153).

learn something from the activity (13.7%), 28 (18.3%) indicated that they joined because they were specifically interested in the history of the city or wished to become more familiar with the monuments; they seemed to have joined because they felt some sort of (pre-existing) connection to the city. Twenty-six people joined out of curiosity (17%) and 10 (6.5%) had other reasons, including one person who joined because of "enjoyment" (Anonymous respondent, participant questionnaire). No one indicated to have joined because of social reasons, such as that going together seemed fun, which is mirrored in the fact that most people went alone, or that they wanted to meet new people. Health was also not part of people's motivation to join. The reasons for people to join are different than those we saw for the *DOMunder* case study where people seemed to join mostly because of educational reasons, and in that sense scores presented here do not reflect the primarily educational value given by European citizens to archaeology and archaeological heritage (Kadja *et al.* 2017). Scores are also different in comparison to the *Invisible Monuments* case study, where a large group of people indicated to join because of social reasons. However, the general interest in, or fascination for the subject of archaeology is present in all three case studies. With most people having indicated to have a 'general interest' in the topic, and being residents of Thessaloniki (73%), we can state that, while the activity reached a new audience in terms of age, it did not succeed in attracting people with no or little prior knowledge or interest in archaeology. Rather, the activity attracted an audience which was already involved with archaeology and heritage. A more detailed analysis will be done in chapter six.

The data show that people were very eager to learn more after their participation in the *Invisible Monuments* activity. More specifically, 39.8% Strongly agreed and 52.6% Agreed to this, meaning that for more than 90% of the people the activity triggered their eagerness to learn more about archaeology (figure 5.18).

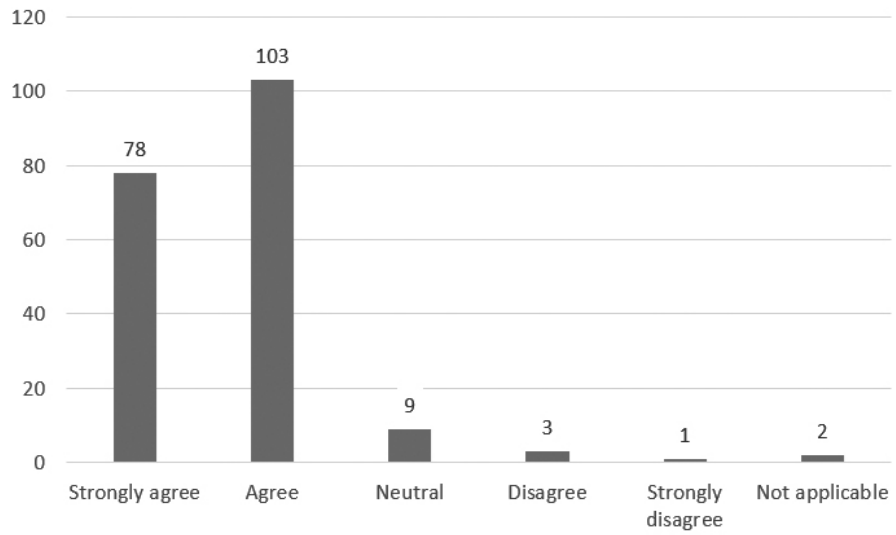


Figure 5.18: Absolute scores for the statement "After completing the activity, I still want to know more about archaeology" (n=196).

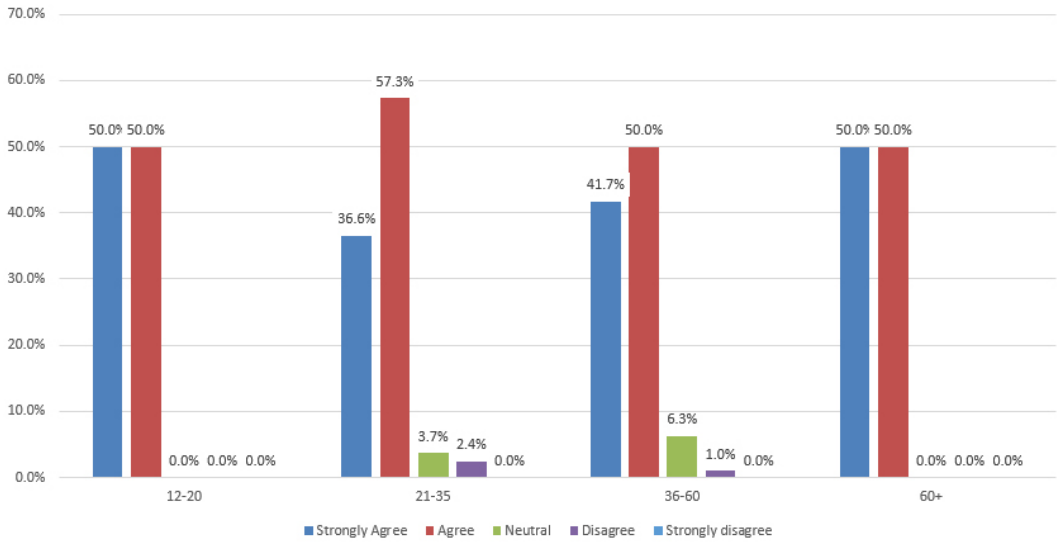


Figure 5.19: Relative comparison between age categories and the eagerness to learn more (n=194).

This is an important outcome, since it shows that the activity was successful in raising awareness and motivating people to learn more about Thessaloniki's archaeological history. Perhaps this is the start of what the initiators aimed to achieve, the creation of a 'living memory'.

A cross-comparison with age categories shows that the youngest age group was, together with the oldest age group, strongest in their enthusiasm to learn more about the archaeological history of the monuments; 50% Strongly agreed to this statement (figure 5.19). However, as with the other comparisons with age categories, we have to keep in mind that the age group of 60+ only consists of 4 results.

5.5.6 Imagination and vision

This event was designed to allow for fast-paced and easy access to information about the monuments on the internet, using the latest in technological means. The main idea was to combine digital social media and mobile phone technology to raise public awareness. While social media was part of the communication and outreach tools (the impact of this in terms of 'Likes' etc., is mentioned at the beginning of this chapter), starting a discussion about the contents of the activity was not specifically mentioned as a goal. Rather, these social media were mostly used to 'spread the word' and to post photos and comments by the activity organizers during the activity weekend. However, social media inherently invites and allows people to join or start a discussion and for some participants of the activity this was enough incentive to post a comment, rate the activity, or post photos.

The Facebook page consisted of two different sections: The *Invisible Monuments* page itself, which describes the idea of the activity, allows for posting by the organizer, and collecting 'Likes' and 'Rates/Reviews' from visitors – and the Event page which is connected to the actual event, displaying the date and time and which allows for people to comment and post their own photos. The *Invisible Monuments* Page gathered

over 1200 likes, but more importantly received 15 reviews. In these reviews, some people creatively expressed their opinion on the monuments. One person, for instance, wrote "The rationale of the action/activity is original. The material given was quite informative for a first contact, at least for the least not or even unknown monuments (such as the Antigonids Roman Bath, the Temple of Sergios Pragamas or the Neolithic settlement of TIF). Experiential memory is often painful, as you try to follow the footsteps of history hidden in dirt, garbage and mud (the end of the Hippodrome, behind the sanctuary of the new temple of Mary, as it looks, if you get out of the small door of… Masouti's Butcher. As for the stele of snakes, surrendered to the nightmarish traffic of Agiou Dimitriou street). Feelings are mixed as with your digital memory you hunt the 'invisible' in a visible, horrible reality of an 'ugly' and dirty city, abandoned by OASTH and its governors, a city that you love so much, and hurts you so much… [Translated from Greek by Aris Politopoulos]" (Νταούνη 2016). Another person wrote "Bravo!!!!! and something new and innovative!!!! Makes the "invisible" Visible! Great idea!!!! […] Seven points which constitute bridges between the present and the past [Translated from Greek by Aris Politopoulos] (Isaakidis 2016).

Others simply rated the *Invisible Monuments* Page: in total 15 reviewers rated 5 stars (out of 5), meaning they were very enthusiastic and positive about their experience. The Event page allowed for visitors to make comments and post photo's. In total 7 persons made their own posts, consisting of either a text, or a text plus photos on the Event page; 36 photos were posted by non-organising people in total.

Twitter and Instagram did not get much active attention from participants. While Twitter does allow for people to write short messages, even using hashtags to create a specific topic-filter, only 1 person made use of this. Instagram also allows for people to make comments, but on specific photos posted by the organiser of the activity. This happened once, where one person congratulated on the photo, without giving any hints at 'creative interpretation' of the archaeological content.

Although the number of Facebook Likes and followers on Twitter and Instagram are quite substantial, especially for the former, this did not result in a high social media participation. People seemed to be passive rather than active. This dissonance could be because the organizers of the activity did not perform audience research in order to create participatory motivations. Especially in relation to the top-down models of public archaeology, associated issues of using social media, such as digital literacy and online authority need careful consideration (Richardson 2014). While perhaps not many in total, the posts that were made did provide a window into the interpretation of the event and how the monuments are perceived. Some people were quite creative in their comments on this. This means that the event did provide a platform for participants to express their ideas about archaeology, though it was not stimulated as such.

5.5.7 Health and Well-being

Participants of the *Invisible Monuments* activity were asked if participation affected their emotions. There were 9 'positive' and 5 'negative' emotions presented in the questionnaire and participants could rate how much they were affected through a 5-point Likert-scale, ranging from 'Not at all' to 'Extremely'.

The results for each emotion were weighted (Not at all = x.1; Slightly =x.2, etc.), averaged per Likert-scale level, and compared to the age categories. It seems that the

		12-20	21-35	36-60	60+	Average
Postive emotions	Relaxed	3.7	3.7	3.7	2,0	3,3
	Safe	3.9	3.3	3,3	2,0	3,1
	Happy	3.8	4.0	3,9	3,3	3,8
	Useful	4.2	3.7	3,6	4,3	3,9
	Capable	3.8	3.5	3,2	3,0	3,4
	Inspired	4.1	4.1	3,5	3,0	3,7
	Energetic	4.1	4.0	3,5	3,0	3,7
	Healthy	3.8	3.3	3,1	2,5	3,2
	Positive	3.8	3.8	3,4	2,7	3,4
	Average	**3.9**	**3.7**	**3,5**	**2,9**	**3,5**
Negative emotions	Anxious	2.2	2.5	2,2	1,5	2,1
	Angry	2.0	1.8	2,0	2,0	2,0
	Depressed	2.1	2.1	2,1	1,0	1,8
	Insecure	1.8	1.5	1,5	2,7	1,9
	Judged	1.8	1.5	1,5	1,0	1,5
	Average	**2.0**	**1.9**	**1,8**	**1,6**	**1,8**

Table 5.3: Weighted average scores for personal emotions per age category (n=188 for Relaxed, n=183 for Safe, n=186 for Happy, n=189 for Useful, n=185 for Capable, n=187 for Inspired, n=188 for Energetic, n=177 for Healthy, n=183 for Positive, n=184 for Anxious, n=186 for Angry, n=185 for Depressed, n=184 for Insecure, and n=182 for Judged).

age category of 12-20 years felt the most impact on positive emotions – on average, scoring a 3.9 (in green, table 5.3); the age group of 60+ felt the least impact in positive emotions, scoring a 2.9 on average (however, together these age groups only count 16 respondents, possibly not representing the total number of participants). This divide between the age groups of 12-20 and 60+ is something also noticed for the *You(R) Archaeology* contest and will be further discussed in the next chapter. Overall, people scored highest on average for the Useful emotion (3.9 on average, in green) and least high for the Safe emotion (3.1 on average, in red).

Looking at the negative emotions, we see that people felt mostly anxious (2.1 on average, in red) and least judged (1.5 on average, in green) during the event. Interestingly, the age group 12-20 scored highest for the *negative* emotions as well and the oldest age group lowest. Although we have to be careful with interpreting this data, as the number of respondents for those categories are quite low (11 for the age group 12-20 and 4 for the 60+ age group), the other age groups seem to fit perfectly in between these two outliers: the older the age group, the lower the scores on both positive as well as negative emotions.

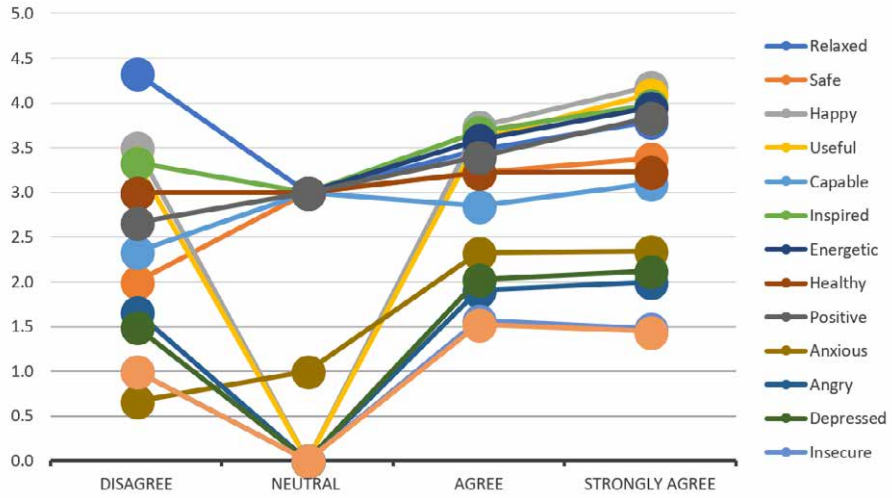


Figure 5.20: Weighted averages of personal emotions versus scores for impact in knowledge (n=182 for Relaxed, n=179 for Safe, n=181 for Happy, n=184 for Useful, n=180 for Capable, n=182 for Inspired, n=183 for Energetic, n=172 for Healthy, n=178 for Positive, n=179 for Anxious, n=181 for Angry, n=180 for Depressed, n=179 for Insecure, and n=177 for Judged).

The differences between the oldest and youngest age groups can be interpreted in a variety of ways. Firstly, it could imply that we see a reflection of the fact that positive effects seem to increase with age, but rapidly decline when people reach the age of 70+ (Mroczek 2001). Furthermore, this outcome might reflect the findings of a recent study which shows that American adolescents perceive a higher Subjective Well-being than people aged 30+ (Twenge *et al.* 2016). According to the authors, the cultural shift towards individualism in which the youth takes more risks, and seeks novelty and information for future purposes, promotes higher Subjective Well-being for adolescents. In contrast, the weakening of social ties, the Great Recession, and growing income inequality engenders a negative effect on the Subjective Well-being of adults (Twenge *et al.* 2016). Secondly, the age groups could have different levels of expressing emotion and this would then also count for the negative emotions. Lastly, we can take these outcomes at face value, an option bolstered by the fact that indeed the oldest age group sometimes scores higher than the youngest age group, for instance for the Useful positive emotion and especially for the Insecure negative emotion (with a 0.9 difference). The latter could perhaps mean that the oldest age group feels more uncomfortable using mobile technology, whereas the youth is much more at ease with it.

Just as with the *You(R) Archaeology* case study, here too personal emotions were cross-compared with increase in knowledge. In this case study, too, there seems to be a connection with people's perceived increase in knowledge and the impact on their emotions. More specifically, it seems that people who indicated to have learned the most (in other words 'Strongly agreed') had the highest weighted average scores for impact in emotions (figure 5.20). This means that people who indicated to have learned the most were also the ones who felt most happy, relaxed, safe, capable etc. The two *positive* emotions not increasing between 'Agree' and 'Strongly agree' were Health, which

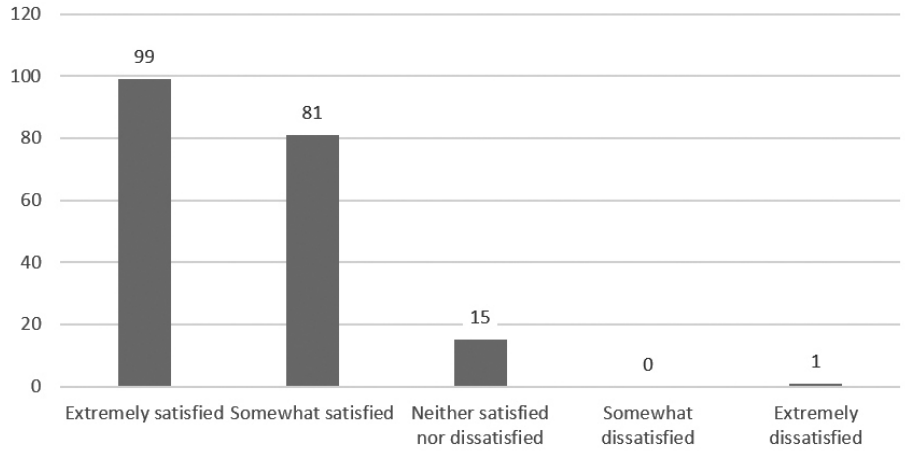


Figure 5.21: Participants' satisfaction (n=196).

stayed the same at 3.0 average, and 'Relaxed', which actually scored lower (4.3 at the 'Disagree' level and 3.8 at the 'Strongly agree' level). Perhaps people felt less relaxed because of the intensity of the activity in which they both had to search for and absorb knowledge. Apparently, a positive impact on learning has a somewhat negative impact on people's state of relaxation. From the *negative* emotions, 'Angry' and 'Depressed' scored higher for those people noticing an impact on knowledge (scoring 'Agree' and 'Strongly agree'), but that increase was very slight; Insecure and Judged actually declined and Anxious stayed at the same score.

Because most of the knowledge increase scores were given in the 'Agree' and 'Strongly agree' levels, the image for those two levels displayed here is arguably the most reliable. Data from Disagree (there were no scores in Strongly Disagree) and Neutral were very low, with about 1 to 3 scores per emotion (compared to about 175 for Agreed and Strongly Agreed). This means that the image displayed in figure 5.20 is possibly distorted for the lower Likert-scale categories, but is included for completeness nonetheless. Taken at face value, it seems the *negative* emotion scores were lower when people indicated to perceive less impact in learning.

Of course, these numbers do not give us an insight into the causal relation between the two variables, only that there seems to be one. In other words: we don't know whether the feeling like you have learned more resulted in a happy feeling, or vice versa, that people who felt happy were perhaps more open to learn about archaeology, to give just one example. Nonetheless, the relation between these emotions and the perceived increase in knowledge is important, as it shows the potential sociocultural value of public activities in archaeology and can help in the decision-making process of future events.

As part of the Health and Well-being header, satisfaction describes how the *Invisible Monuments* activity impacted the sense of accomplishment and overall fulfillment of the participants. In total, 91.8% of the people were satisfied after their visit; 50.5% 'Extremely satisfied' and 41.3% 'Somewhat satisfied' (figure 5.21). Fifteen respondents

(7.7%) scored 'Neither satisfied nor dissatisfied' on the subject and one person was 'Extremely dissatisfied' (0.5%).

This topic was also included in the *You(R) Archaeology* survey, but there that question specifically referred to participants' satisfaction with their art submission, and not satisfaction after completing the activity. Here, however, people were specifically asked about their satisfaction after completing the activity and with over 90% of the people indicating to be satisfied, it can be stated that the activities' goals and people's expectations were not far apart. In other words; it seems that people got what they came for.

Though overall all age groups, except the 60+ age group, scored about 90% satisfaction ('Extremely satisfied' and 'Somewhat satisfied'), we can argue that people in the age category of 21-35 were the most positive: 57.3% scored Extremely satisfied, followed by the age group 36-60 (48%), 12-20 (33.3%), and 60+ (25%). The oldest age group was least satisfied after their participation as they scored the most neutral (Neither satisfied nor dissatisfied) with 25%. Although we have again to keep in mind that the total number of participants for that age group is 4, which is a low number and probably does not speak for the total number of participants.

There seems to be no strong relation between the scores for satisfaction and the perceived increase of knowledge: Spearman's Rho test shows a correlation co-efficient of .323 with very high statistical significance ($p<0.0001$, $n=196$). In this test, the 'non-applicable' answers were omitted. In other words, an increase in knowledge alone is not the reason for people to feel satisfied. Apparently, it is a combination of factors that impact that emotion.

5.6 Wrapping up results

5.6.1 Research goals

This case study was built on several goals, 5 of which were set up by the author of this thesis in order to investigate particular research questions.

The first, and most general, goal was to create a commensurable dataset for analysis of sociocultural impact and comparison with the other two case studies (discussed in chapter 6). This goal has been met, as the questions were asked and data gathered in a similar way, based on Matarasso's framework (1997), meaning that for several of the topics included a comparison can be made.

The first specific goal was to see whether participants were motivated enough to finish such an activity, and whether or not the trail actually increased their motivation. While we know that 196 people filled out the questionnaire, and 194 people gave an insight into how much time they spent, there was no question included asking people whether they actually finished the event. From the amount of people indicating to have spent less than 1 hour on the activity, we can infer that not all who started actually finished the whole trail. What we do know, however, is that motivation scored a weighted average of 3.2 points, third highest of the personal attributes, and in particular the age groups 12-20, 21-35 and 60+ years old were motivated. This means that the activity raised enough momentum, regardless of time spent, for people to feel motivated.

The second specific goal was to see whether such an activity increases participants' knowledge. This goal was met with high marks; 94.9% indicated that the *Invisible*

Monuments activity impacted their knowledge. This increase was noted mostly among higher educated people. Interestingly, it did not greatly matter how much time people spent on the activity, as there was no connection found between knowledge increase and time spent. This could mean that the scope of the activity met the expectations of the participants: learning can be done quite quickly indeed, and the organizers of the activity stimulated this idea by providing short and concise texts. Furthermore, it seems that there is a connection between knowledge increase and the impact on people's emotions: the more people indicated to have learned, the higher their impact on emotions. We do not know in which direction this relation runs (whether increase in knowledge influences emotions, or whether impact in emotions influences perceived knowledge increase). However, from various studies we know that positive emotions enhance a range of cognitive and social functions, for instance memory, concentration, and communication, and broadens student's attention (Rowe *et al* .2015; Fredrickson 2004; Isen 2000). Perhaps what we observe here are these workings in an archaeologically educational setting.

The third goal was to see if there is a difference between tourists and residential participants. We know that 40 (20.4%) out of the 196 participants indicated to see themselves as tourists and that only 5% came from other countries. This means that while most of the participants were Greek, people from outside Thessaloniki still considered themselves to be tourists.

The fourth specific research goal was to see if there is a difference in data between the age categories. This goal was set because the activity is quite heavily focused on technological know-how. First of all, it is important to note, again, that we only had 4 participants from the oldest age group of 60+, meaning that the data and subsequent analysis can be distorted. Although the oldest age group seemed to be most self-conscious of all the age groups, they also noted to have the highest understanding of the past after their visit. This means that the use of mobile devices did not seem to be a hindrance for them in learning, although perhaps they felt a bit more self-conscious using them. The 60+ age group also indicated to be motivated and eager to learn more about the history of the city afterwards, indicating that at least the activity, while perhaps focused on the latest technology, was interesting enough for them to want to learn more.

5.6.2 Activity goals

The questions included in the survey were also based on activity goals set by the Aristotle University. These goals were created based on three levels, from 'objective, to 'main idea', to 'ambition'. It was not made clear by the organizer whether achieving (part of) these goals would lead to them considering the activity to be a success. Here, these goals will be described from narrow (objective) to wide (ambition).

The first goal, the objective, was to 're-introduce selected archaeological sites of Thessaloniki's rich archaeological heritage which remain unnoticed or unknown to the public either because they are hidden under the urban development without any indication of their place, have already been removed, or are simply ignored within the chaotic clutter of the urban landscape (Theodoroudi *et al.* 2016, 1)'. This goal was met, as most of the people indicated to have learned about the monuments (although a considerable amount – 84.2% – did already know about at least part of the monuments). More importantly however, people indicated to have learned more than that

they expected to, 42 (21.4%) of them even extremely so. This means that while people had prior knowledge of the monuments, the activity helped them to learn more about them and 'uncover' their hidden histories.

The second goal, the main idea, was to 'combine digital social media and mobile phone technology to raise public awareness on antiquities in an innovative and unconventional way (Theodoroudi *et al.* 2016, 1)'. As discussed previously, it seems that the fast pace, inherent in the use of digital mobile technology, did not prevent participants from learning about the monuments or connecting them to the local archaeology. Rather, it seemed to stimulate participants to follow the trail and learn. The fact that the website reached over 5000 hits and the Facebook page of the event over 1200 'Likes' means that the organizers were quite successful in raising public awareness in general as well. The fact that many people indicate to want to do the trail again, or another time, means that the activity was also a success in that sense.

The third and last goal, the ambition, was the basis of the activity and aimed to turn 'hidden and forgotten sites into places of living memory, connecting them with people's everyday life by exploiting simple, user-friendly and widely familiar digital technology' (Theodoroudi *et al.* 2016, 1). While it is difficult to answer whether or not the activity stimulated the participants to see the monuments as places of 'living memory' we can say that it increased their connection to them. It seems that such an activity, located in a city and focused on specific and local archaeological monuments, successfully helps people with connecting to their past, and even, for some, to the (other) inhabitants of the city. People also indicated to have learned about the monuments, but more importantly that they are eager to learn more about them. This indicates that the activity created a longer lasting impact on the participants than merely the ad-hoc learning experience, hopefully leading towards a lasting impression and a 'living memory'.

6

Discussion

6.1 Introduction

In the previous chapters the concepts of value assessment, value typology, and impact were discussed. We have seen that values are intricately connected to impact as they are sides of the same 'coin' (Bollo 2013), both expressing the relationship between people and cultural heritage. Academic views on this relationship between people and cultural heritage have changed over time. While initially the value of cultural heritage was linked primarily to its intrinsic aspect (object-oriented), and the preservation of monuments and artefacts was prioritized, we see that the societal value of cultural heritage becomes increasingly important as it plays a growing role in today's subject-oriented society (Van den Dries *et al.* 2015; Cultural Heritage Counts for Europe Consortium 2015; Blessi *et al.* 2014; Ander *et al.* 2013). As such, the societal role of cultural heritage is emphasized in cultural heritage management guidelines and frameworks. One way of showing the societal value of archaeological heritage, is through analysis of the sociocultural impact, as is the main research goal of this thesis. Through public activities, participants are encouraged to interact and connect with archaeological heritage. This moment of interaction has a certain effect on people (an impact) which could be positive or negative.

Indeed, in the analyses of the results of the DOMunder, and NEARCH case studies (You(R) Archaeology, and Invisible Monuments) we have seen that participants are impacted on in a variety of sociocultural aspects. From these analyses, we can theorize that the level of impact is dependent on several factors, such as the nature of the activity, certain demographic factors of the participants, such as age and gender, and reasons for participation. Previously, it has been discussed that the generation of impact is not a given, and that steps need to be taken to achieve it (Cultural Heritage Counts for Europe Consortium 2015, 53). These steps take the form of activity goals, set up to produce a certain outcome. Most of the factors that seem to influence the level of impact are connected to the activity goals set by the initiators of the activities, which are different for each of the three cases studies, attracting a different audience with different attitudes and expectations. In this sense, it is now relevant to reflect on what Pendlebury *et al.* write, that "Cultural heritage must be considered an opportunity space in which impact *may* occur" (2004, 12, emphasis added by author), which might imply that it is not exclusively the subject of cultural heritage, but rather the context of the activity, based on activity goals, that generates impact.

To analyze and validate this hypothesis, a comparison of various aspects of sociocultural impact will be made between the three case studies and their corresponding activity goals in the first section of this chapter (6.2). This section will also provide a model with the aim to provide future researchers and cultural heritage managers with a tool to predict and steer sociocultural impact, and will include some insights into the cost-benefit of the case studies.

As touched upon briefly in chapter 2, many of the aspects discussed in this thesis directly relate to the concept of Sustainable Development. The 'Council conclusions on cultural heritage as strategic resource for a sustainable Europe' (Council of the European Union 2014a), for instance, emphasizes the role of cultural heritage to enhance social capital in Europe (Cultural Heritage Counts for Europe Consortium 2015, 52) and a strong lobby within the cultural heritage sphere can be observed which aims to incorporate culture into the UN Sustainable Development agenda (UNESCO 2013). In section 3 of this chapter, Sustainable Development and how sociocultural impact analysis of cultural heritage can contribute as means to validate cultural heritage as an important asset for a sustainable future will be discussed.

6.2 Comparing the case studies

6.2.1 Comparing activity goals

The first step in comparing the levels of sociocultural impact between the different case studies is to compare their activity goals (table 6.1). These goals, set by the initiators of the activities, form the context and structure of the activities and as such might influence the level of sociocultural impact they can generate. As the individual activity goals have been extensively discussed in the corresponding case study chapters, the table below lists a summarized version only. The table is divided by both case study and (target) audience with their corresponding activity goals. Target is placed in brackets as these audiences were not always targeted by the activity, but were instead included for research purposes.

6.2.2 Comparing results of the surveys

6.2.2.1 Demographics

Age comparison between the three case studies shows that each activity attracted a different audience age-wise (figure 6.1). Unfortunately, because of the different goals of the activities, the age categories used in their respective surveys are not entirely compatible. We see that the You(R) Archaeology contest had the largest number of children, especially in the age category of 1-11. This is not a surprise, as the contest purposefully included a category for children of that age group specifically and as such aimed to attract children. The Invisible Monuments activity had 41.8% visitors of the age category 21-35, which we can attribute to the fact that many students and scholars participated. Unfortunately, the DOMunder activity used a different scale for measuring participant's age categories, so an age comparison between DOMunder visitors and volunteers, and the other case studies is difficult and those numbers are not included in the comparison. However, the DOMunder survey did include a category for people

	DOMunder	You(R) Archaeology	Invisible Monuments
(Target) audience	1) primary and secondary school students; 2) visitors interested in culture and history – emphasis on families with children ageing 9+, and visitors aging 50+; 3) Sightseeing tourists	Citizens from the 28 EU member states, both professional artists and amateurs. Children between 0 and 12 years old had a separate category for artwork submission and prices.	Passers-by, both tourists and residents of Thessaloniki. No specific age was mentioned by the organizers.
Activity goals	1) To present DOMunder, together with the DOMplein to the audience and make visible the historic layers – together, create a 'cultural oldspot'. 2) To increase visitor numbers 3) The activity should be profiled as a 'unique' and 'real visitor experience'.	1) Visualize people's views, or representations, of archaeology and heritage in order to evaluate the social and economic orientation of the archaeological practice. 2) Connected to the first goal is *the activity* goal to encourage participants to express positive or critical points of view about archaeology.	The three activity goals for this activity were ranked by the initiator from strict to wide, from 'main objective', to 'main idea', to 'project ambition'; 1) The main objective was to re-introduce selected archaeological sites in Thessaloniki to the public; 2) The main idea was to use a combination of digital social media and mobile phone technology to raise public awareness in an unconventional way; 3) The ambition of the project was to turn hidden and forgotten sites into places of living memory, connecting them with people's everyday life.
(Target) audience	*Residents living close to DOMunder*	N.a.	N.a.
Activity goals	While residents living close to DOMunder form a unique stakeholder, they are not addressed as such in the DOMunder documentation. This stakeholder is included into this thesis to see how far sociocultural impact reach*es (resea*rch goal).	N.a.	N.a.
(Target) audience	*Volunteers*	N.a.	N.a.
Activity goals	This stakeholder is not included in the activity goals of DOMunder, but is included in this study to see how far sociocultural impact reaches for this activi*ty (resea*rch goal). While DOMunder did not provide activity goals for the volunteers, their reasons for joining are shared in the survey answers.	N.a.	N.a.

Table 6.1. Comparison between the three case studies' activity goals and (target) audiences.

older than 61, which comes close to the category of 60+ for the other two case studies and is therefore included in the comparison. It turned out that DOMunder has a very different visitor audience in terms of age; 41.3% of them are older than 61+, compared to 8% for You(R) Archaeology (60+) and 2% for Invisible Monuments (60+). For volunteers, the oldest age category scores even higher; 54.5%.

In terms of gender, we see that for all three activities, mostly women participated, except for the volunteers of DOMunder (figure 6.2).

Archaeology and archaeological heritage activities in Europe attract, overall, an audience which is mostly male, older, and higher-educated as another NEARCH survey confirmed (Kajda *et al.* 2017, but see also Van den Dries and Boom 2017; Maeer *et al.* 2016); we are missing out on younger people, parents with children, and those that are often marginalized (*e.g.* poor or disabled) (Fujiwara *et al.* 2014). It is very interesting to see that gender-wise, none of the three case studies fit that observation – the NEARCH poll-survey shows that females are less active in participating in archaeological activities.[41] In terms of age, the DOMunder case study fits that profile strongest; the other case studies attracted a (much) younger audience. Unfortunately, we do not have information on the education-level of the DOMunder and You(R) Archaeology visitors, but the Invisible Monuments activity attracted mostly high-educated visitors.

We can attribute the age differences to the different settings and goals of the activities. While unique in its appearance, DOMunder forms, arguably, a more traditional archaeological heritage activity (even though it uses innovative storytelling), in which an audience is invited to 'watch, but not touch', and stays in the same location. The Invisible Monuments activity is less conventional as it focussed on mobile technology and used a trail, based on a historical narrative, which people had to walk to visit the monuments. The You(R) Archaeology contest, in contrast, did not require for people to travel at all, and was very creative in nature as the sole requirement for people to join was to submit their perception of archaeology via artwork. While the You(R) Archaeology contest did attract a number of children, we do not know whether this is because of the existence of a specific children's category, or because of the innate creative nature of the activity. We know that children visit DOMunder, especially in school related activities, but they were not interviewed.

6.2.2.2 Local image and identity

In the comparison between the You(R) Archaeology and Invisible Monuments case studies, we can see a difference in how those activities impacted their participants in connectedness to archaeology. For the Invisible Monuments case study, participants clearly felt more connected to Local and National Archaeology after the activity, scoring strong on both Agree and Strongly Agree (in green; red shows the scores for the You(R) Archaeology activity, table 6.2). The You(R) Archaeology activity had more impact on how people connect to the international level, with 35.8% scoring Strongly Agree (in green) versus 14.3% for the Invisible Monuments activity (in red), although with the Invisible Monuments participants scoring 44.9% on Agree, they also clearly felt impact on that scale. The lower scores on Local and National archaeology for the

41 http://archaeologydataservice.ac.uk/catalogue/adsdata/arch-2749-1/dissemination/pdf/NEARCH_Image_of_archaeology_Europe_OK.pdf

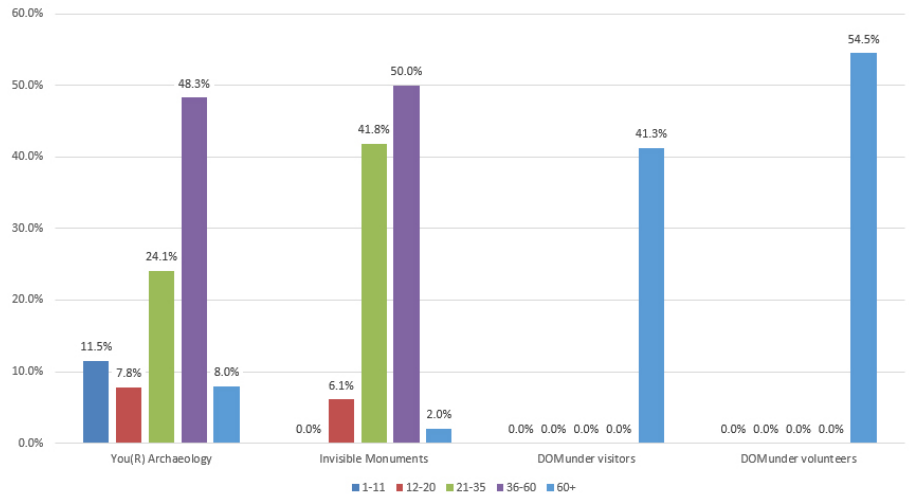


Figure 6.1: Comparison between age categories for the three case studies (n=87 for You(R) Archaeology, n=196 for Invisible Monuments, n=62 for DOMunder visitors, and n=32 for DOMunder volunteers).

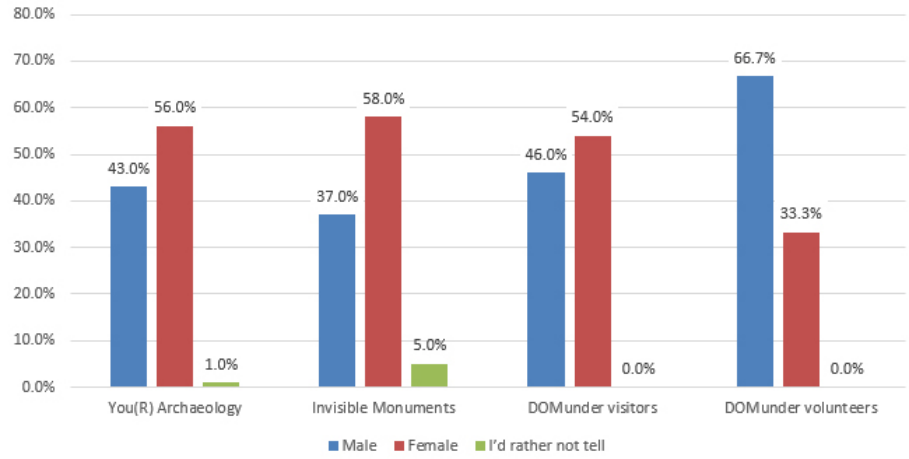


Figure 6.2: Comparison between gender figures for the three case studies (n=87 for You(R) Archaeology, n=196 for Invisible Monuments, n=63 for DOMunder, and n=32 for DOMunder volunteers). N/A is Not Applicable – incomparable data from DOMunder.

You(R) Archaeology contest are a result of participants scoring both more Neutral and Not Applicable (in orange). We have seen that the visitors of DOMunder also felt more impact on a local level (in this case the archaeology of Utrecht scoring higher than the archaeology of the Netherlands). This means there is a difference in impact between the DOMunder and Invisible Monuments case studies on the one hand, and the You(R) Archaeology case study on the other. This can be attributed to their respective geographic contexts; the You(R) Archaeology activity was an international art contest, with people submitting from 11 different EU countries, and having chosen mostly archaeological subjects crossing their own border for their artworks. In contrast,

both the DOMunder and Invisible Monuments activities had a strong focus on local archaeology and history, and although narratives of these activities connected the local with the national and international, local archaeology was both their focal and vantage point. From studies of public archaeological activities in the Netherlands and Germany we know that a local context and set-up results in receiving mostly local audiences (Boom *et al.* forthcoming; Van den Dries *et al.* 2016). In addition, this PhD research shows that a focus on local archaeology not only attracts a local audience, it also makes them feel more connected to local archaeology, even when that archaeology is placed in a broader geographical context.

That participating in, or having access to, cultural heritage increases (civic) pride is a known fact (for an overview of relevant literature, see Dümcke and Gnedovsky (2013) who reviewed 87 publications, in the context of the European Agenda for Culture). The You(R) Archaeology and Invisible Monuments survey data also provide details of perceived impact on people's (civic) pride. Because the relevant question and answer categories are similar in set-up, a comparison can be made between the two datasets. For this comparison, the categories 'Not Applicable' and 'Blank' are left out to provide for a clearer image; 'Strongly agree' and 'Agree' are grouped under 'Agreed' and 'Strongly disagree' and 'Disagree' are grouped under 'Disagreed'. The comparison shows that the two activities triggered very different responses: people who participated in the *Invisible Monuments* activity felt an increase in pride for Local archaeology primarily, declining through National archaeology to International archaeology whereas for the *You(R) Archaeology* participants this trend is exactly reversed (figure 6.3).

The reason for this difference could lie in the specific goals of the activities and the inherent way in which they were set up. The *Invisible Monuments* activity aimed to (re-) connect the citizens of Thessaloniki to the, often hidden, cultural and archaeological monuments of the city. This resulted in a specific set-up of the event in terms of communication and outreach, attracting mostly residents of Thessaloniki. Both the goal of the event and its audience can be considered local, as discussed before. The opposite is true for the *You(R) Archaeology* contest. That event aimed to attract a large and varied audience as a means to gain insight into Europe's representation of archaeology. This resulted in it bolstering art subjects with a local, national, and international provenance (most artworks, in fact, belonging to the international provenance category). While 48 of the participants of the *You(R) Archaeology* contest were Italian, 40 other contributions were counted from 10 other countries, meaning that the contest indeed had an international audience. From these observations, it can be concluded that the goals of the event, resulting in a certain audience dealing with specific archaeological subjects, forms an important factor and steers how those people perceive an increase in civic pride. It seems that keeping an event focussed on a small location helps to increase pride for that specific set geographical boundary, whereas opening up those boundaries to a wider horizon enlarges the pride increase effects respectively; the same hypothesis was stated for connectedness in the previous sub-section, indicating that the two variables are possibly connected.

While many people felt an impact in pride, numbers are not as high as seen in the UK, where a study by English Heritage reveals that over 90% of visitors and residents living in areas with a significant historic environment felt an increase in civic pride (Davies and Clayton 2010). While other studies note that impact in pride is an

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A	Total amount (n)
Local Archaeology	*You(R) Archaeology*	1.3%	7.6%	30.4%	26.6%	21.5%	12.7%	79
	Invisible Monuments	1.5%	0.5%	1.0%	41.8%	55.1%	0%	196
National Archaeology	*You(R) Archaeology*	1.3%	5.3%	26.3%	32.9%	23.7%	10.5%	76
	Invisible Monuments	2.0%	5.1%	10.2%	54.1%	28.1%	0.5%	196
International Archaeology	*You(R) Archaeology*	3.7%	2.5%	18.5%	35.8%	35.8%	3.7%	81
	Invisible Monuments	3.1%	12.2%	24.5%	44.9%	14.3%	1.0%	196

Table 6.2: Comparison in connectedness with Local-, National-, and International archaeology for the You(R) Archaeology and Invisible Monument case studies (n=196 for Invisible Monuments, n=87 for You(R) Archaeology).

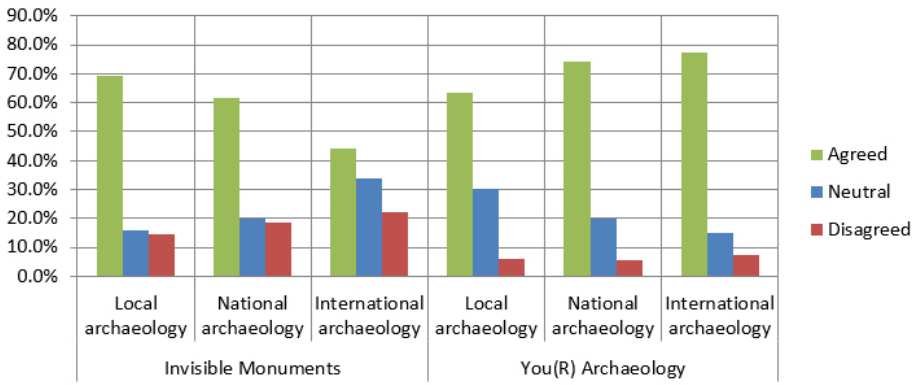


Figure 6.3: Comparison between increase in pride for the Invisible Monuments (n=193 for Local archaeology, n=190 for National archaeology, and n=190 for International archaeology) and You(R) Archaeology (n=66 for Local archaeology, n=70 for National archaeology, and n=80 for International Archaeology) activities.

important positive benefit of interacting with cultural heritage (for instance, Cultural Heritage Counts for Europe Consortium 2015; Labadi 2008), they either aggravate other data to demonstrate pride, or do not reveal figures, making comparisons with other case studies difficult.

6.2.2.3 Personal development

It seems that the *Invisible Monuments* activity had a higher impact on learning than the *You(R) Archaeology* contest (figure 6.4) as more people scored Strongly agree after the former activity (42.9% versus 9.2%).

There were no big differences per score between the age groups (table 6.3). The only exception can be seen between the group of 12-35/36-60 and the group older than 60

for the Invisible Monuments, scoring Agree; the older than 60 group scored 100% versus 53.2% and 49%, respectively. However, that group comprises very low absolute numbers for both activities (7 people for *You(R) Archaeology* and 4 people for *Invisible Monuments*), so that image is quite possibly skewed.

The difference between the two datasets is perhaps not unexpected when we take into account the different goals of those activities. One of the goals for the *Invisible Monuments* activity was to increase awareness in order to (re-)connect residents with these antiquities. As such, the activity was centred on participants' accumulation of knowledge. Some participants stated that it was also their intention to learn something: "that is the reason for my participation" (anonymous respondent) and "to gain knowledge" (anonymous respondent). Others expressed that through learning they now see the monuments differently; "Saw the monuments in a different way" (anonymous respondent) and "Combine the archaeology with sides of daily life in the city" (anonymous respondent). This means that the goals of the *Invisible Monuments* activity fitted the expectations of its participants. The goal of the *You(R) Archaeology* contest was not focussed on learning, but on people expressing their ideas about archaeology – in order for the NEARCH programme to gain an insight into people's perceptions of archaeology. Although for some this meant studying an archaeological object and learning about its history, increasing knowledge can be considered a by-product.

The DOMunder case studies brings comparable data, but voiced in a different way. People were not asked about an increase in knowledge, but rather on whether they learned something new during their visit and if this was more than they expected. To accommodate comparison, these two questions were also included in this case study. Comparison shows that for both case studies the 'Moderately' level was chosen the most (over 50% of total). However, people who participated in the Invisible Monuments activity were more positive, scoring higher in the 'Extremely' category and lower in the 'Somewhat', 'Slightly', and 'Not at all' categories for both questions (figure 6.5).

The Invisible Monuments and DOMunder activities had quite similar goals; through unique activities aimed at 'uncovering hidden layers', educate people about the local monuments, archaeology, and history. Both activities also gave participants the opportunity to discover artefacts themselves and at their own pace. Of course, the DOMunder case study is more restricted, as participants only have one hour to complete the trail, and the objects they needed to 'scan' are located much closer together than the monuments scattered throughout Thessaloniki. Nonetheless, it can be said that participants for both activities were 'active' in their pursuit of knowledge (in the case of DOMunder, this is even verified, as 64% of the visitors agreed to this

	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Not applicable		Total	
	IM	YA	IM	YA	IM	YA	IM	YA	IM	YA	IM	YA	IM	YA
12-35	43.6%	8.1%	53.2%	45.9%	0.0%	32.4%	0.0%	5.4%	0.0%	8.1%	3.2%	0.0%	100%	100%
36-60	43.9%	11.9%	49.0%	42.9%	1.0%	33.3%	3.1%	2.4%	0.0%	9.5%	3.1%	0.0%	100%	100%
Older than 60	0.0%	0.0%	100%	28.6%	0.0%	57.1%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	100%	100%

Table 6.3: Cross-comparison between age groups and scores for knowledge increase for the Invisible Monuments (IM) activity (n=196) and the You(R) Archaeology (YA) activity (n=87).

statement). This means that we cannot link the differences discussed above to the goals of these activities and their practical approach. Rather, it seems that the differences are linked to the dissimilarity in audience and their enthusiasm for the subject. For the *Invisible Monuments* survey, we have participants with a high level of education, including a number of doctors. Some of these participants also indicated to be archaeologists themselves. Although in the DOMunder survey this information was not directly asked for, none of them indicated in the 'feedback question' that they had any relation with historical studies or historical professions and some of them even

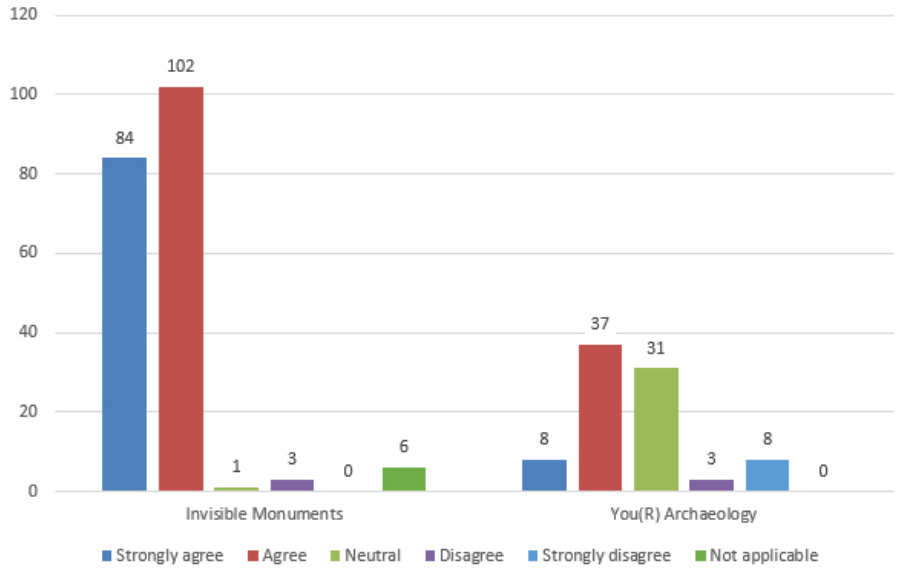


Figure 6.4: Comparison between the Invisible Monuments (n=196) and You(R) Archaeology (n=87) activities for the scores on knowledge increase.

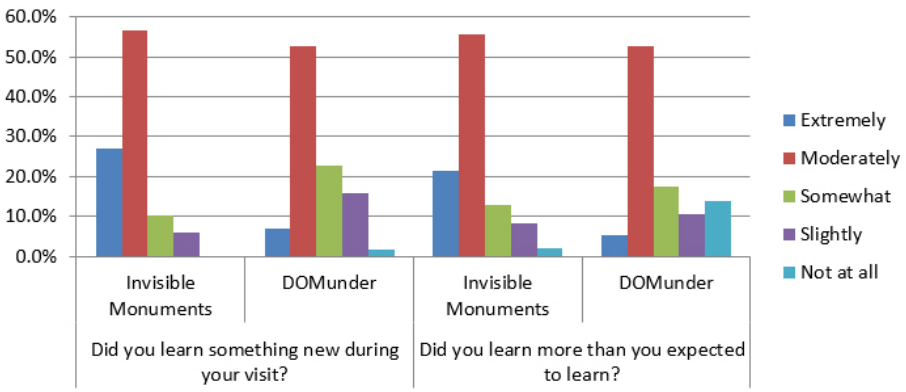


Figure 6.5: Comparison between the relative scores for the questions "did you learn something new during your visit?" and "did you learn more than you expected to learn" for the Invisible Monuments and DOMunder case studies (n=196 for Invisible Monuments and n=87 for DOMunder).

indicated that they were 'laymen' when it comes to history. We would then assume that participants for DOMunder learned more new things during their visit (and perhaps more than they expected to learn). However, this was not the case – it was exactly the other way around. As discussed in the respective chapter, DOMunder visitors seem to be moderately enthusiastic almost throughout the whole survey and were quite critical about the survey questions. Perhaps the difference lies in the overall enthusiasm of the participants (which is lower for the older age categories, of which DOMunder has the highest percentage) and their eagerness to learn something about their past which translates in more positive scores.

To create a better insight into the level of sociocultural impact, time investment was studied for the participants of the You(R) Archaeology contest, the Invisible Monuments activity, and the volunteers working at DOMunder. As each activity has a different goal and setting, time investment scales were different for each survey. This makes comparisons between the figures difficult, especially in comparing with the volunteers for DOMunder, who are often involved for months, sometimes for longer than a year, and spent a considerable amount of time per month, with the biggest number, 33.3%, spending between 11 to 15 hours a month. This scale of time investment is much larger than for the You(R) Archaeology and Invisible Monuments activities. However, the You(R) Archaeology and Invisible Monuments activity scales are quite similar and from those figures three categories can be distilled and compared; less than 1 hour, 1-5 hours, and more than 5 hours (figure 6.6).

Data shows that people participating in the You(R) Archaeology contest spent considerably more time than those participating in the Invisible Monuments activity, especially the difference in the More than 5 hours category is large; 45.4%. The Invisible Monuments activity trail could be completed in about 2 hours. While creating an art piece is a variable time investment, one can also create an artwork within this time period. For both activities participants were free to spend as much time as they wanted. While the Invisible Monuments activity scored lower on time investment, numbers are comparable with a case study in the Netherlands, where visitors of the Dutch National Archaeology days – a public activity in the Netherlands revolving around local archaeological and archaeological heritage activities – were surveyed. On average, visitors there spent 75 minutes, with some staying longer than 2 hours (van den Dries *et al.* 2015). The difference in time investment can be attributed to the different nature of the activities, based on different goals, wherein the You(R) Archaeology contest is more creative, and the Invisible Monuments activity more educational.

In the You(R) Archaeology case study chapter, we saw that people who spent more time creating their artworks perceived a bigger impact on knowledge increase. While this might be the case for that case study, comparing the two case studies here shows a different picture, one in which people who spent less time – the Invisible Monuments activity – perceived a bigger impact on knowledge increase. Apparently, time investment alone does not influence people's perceived impact on knowledge increase.

Nine personal attributes were included in three out of five surveys; the DOMunder visitors, You(R) Archaeology, and Invisible Monuments. Four of these attributes were also included in the DOMunder volunteer survey (figure 6.7).

Participants of the You(R) Archaeology contest scored highest overall, except for Understanding of the past and Views on religion, which were scored highest by the

participants of the Invisible Monuments activity. DOMunder visitors scored lowest across the board. In the DOMunder chapter, we have already seen that volunteers score higher on every aspect compared to the visitors, but here we see that they score not as high as participants of the You(R) Archaeology contest, and only higher for one aspect (self-confidence) compared to the participants of the Invisible Monument activity.

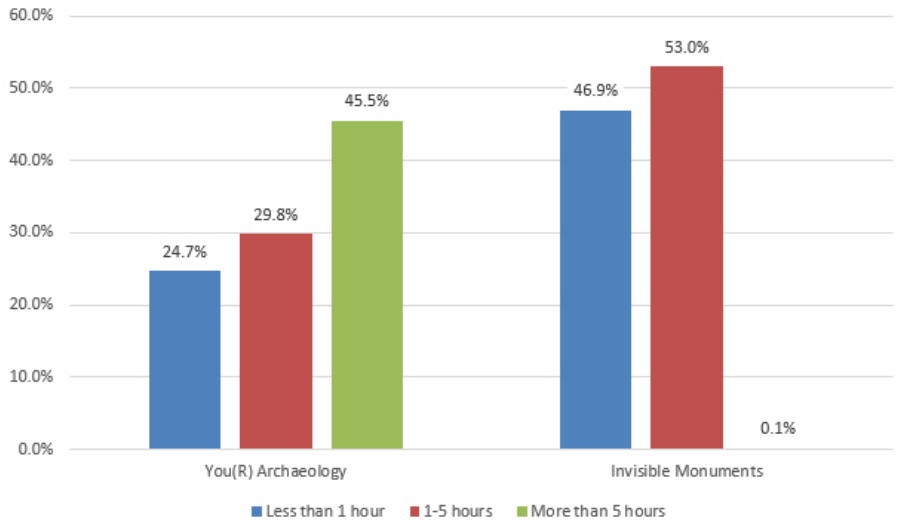


Figure 6.6: Time investment for the You(R) Archaeology (n=93) and the Invisible Monument (n=196) activities.

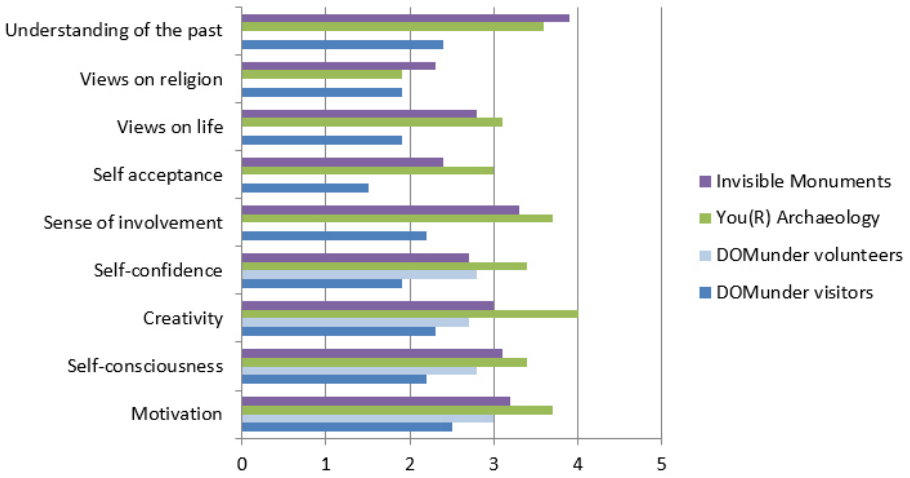


Figure 6.7: Comparison between the weighted averages of personal attributes for four different stakeholders out of the three case studies; DOMunder visitors (n=57), DOMunder volunteers (n=32), You(R) Archaeology participants (n=83 for Motivation, n=79 for Self-consciousness, n=85 for Creativity, n=79 for Self-confidence, n=79 for Sense of involvement, n=77 for Self-acceptance, n=78 for Views on life, n=78 for Views on religion, and n=81 for Understanding of the past), and Invisible Monuments participants (n=196).

From this data, we can again infer that time investment alone is not a factor contributing to the impact on these attributes, as volunteers spend way more time than, for instance, the participants of the contest. Both the DOMunder and the Invisible Monuments activities had an educational goal, which was to share the archaeological history with their participants. However, the former used a more 'traditional' approach to engagement whereas the latter a more active and technologically advanced one. Perhaps these different settings resulted in the discrepancy in Understanding of the past. Creativity scoring higher than the other attributes for the You(R) Archaeology contest is to be expected as this was the goal of the activity, the same can be argued for Motivation and Sense of involvement attributes. However, it seems that the creative aspect, perhaps combined with the thrill of participating in a contest with the chance to win prizes, also generates impact in less expected attributes, such as Self-confidence, Self-consciousness, and even Understanding the past. For the last aspect, scores were even higher than for the DOMunder visitors, even though DOMunder had a very specific educational goal.

In the DOMunder chapter we have seen that the youngest age category (21-30) felt the least impact on these 9 personal attributes and the age group of 31-40 felt the most impact. This was different for the You(R) Archaeology contest in which participants aged 12-20 felt the most impact, and those older than 60 the least. Scores were different again for the Invisible Monuments activity, in which the age group of 36-60 felt the least impact and those older than 60 the most. Along these lines, we can hypothesize that a 'traditional' activity such as DOMunder has the most impact on young adults, a 'creative' activity such as You(R) Archaeology has the strongest impact on children and adolescents, and an 'unconventional approach which combines narrative, technology, and physical exercise', such as the Invisible Monuments activity, has a diffuse impact on age categories. However, while the oldest age group (older than 60) of the You(R) Archaeology contest scored lowest on average for that activity, some scores were higher than the highest scores for the other two case studies – motivation, for example, scored 2.9 as highest for DOMunder, 3.4 as highest for Invisible Monuments, but 4.0 for You(R) Archaeology. From these observations, we can conclude that age does influence impact, but both the strength of the impact, and the exact attribute impacted on, depend on the context of the activity and, possibly, on each person's individual motivations and receptiveness.

Both the DOMunder and Invisible Monuments activities contributed to peoples' ability to better understand the value of archaeology, but the scores were different between the two. Figure 6.9 shows that participants of the Invisible Monuments activity perceived a higher impact on this aspect than the visitors of DOMunder, most notably in the Strongly agree score (25% versus 8.7%, respectively). Furthermore, participants of the Invisible Monuments activity also felt much more comfortable talking about archaeology after their visit; the difference in score between the two case studies for Agree (34.1%), and Strongly agree (10.4%), are quite substantial (figure 6.8).

Both activities had as goal to uncover the historical layers of their respective cities, thereby educating people on the importance of archaeology. However, while DOMunder's activity goals stop at showing people these historical layers, the ambition of the Invisible Monuments project was to turn "hidden and forgotten sites into places of living memory, connecting them with people's everyday life" (Theodoroudi *et al.*

2016,1). It seems that the initiators succeeded in this, as people not only indicated to better understand the value of archaeology, but also felt much more confident to talk about this to others. Apparently, participants of the Invisible Monuments activity understood the relation between the 'distant' archaeological remains scattered throughout the city and their own identities better than the DOMunder visitors. Perhaps the fact that the monuments were scattered throughout the city strengthened peoples' ability

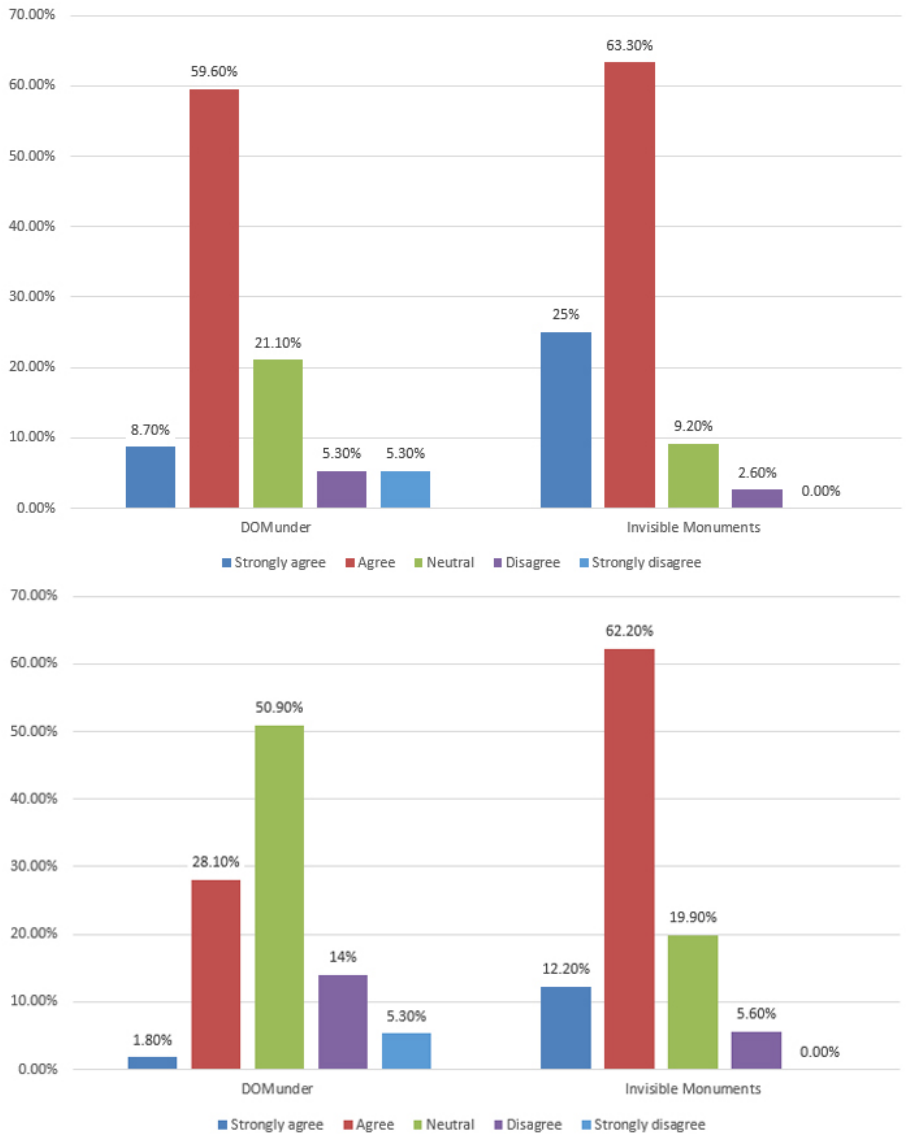


Figure 6.8: Top: Relative scores for the statement "This activity contributed to your ability to better understand the value of archaeology" for the visitors of DOMunder (n=57) and the participants of the Invisible Monuments activity (n=196). Bottom: Relative scores for the statement "You feel more confident talking about archaeology after this activity" for the visitors of DOMunder (n=57) and the participants of the Invisible Monuments activity (n=196).

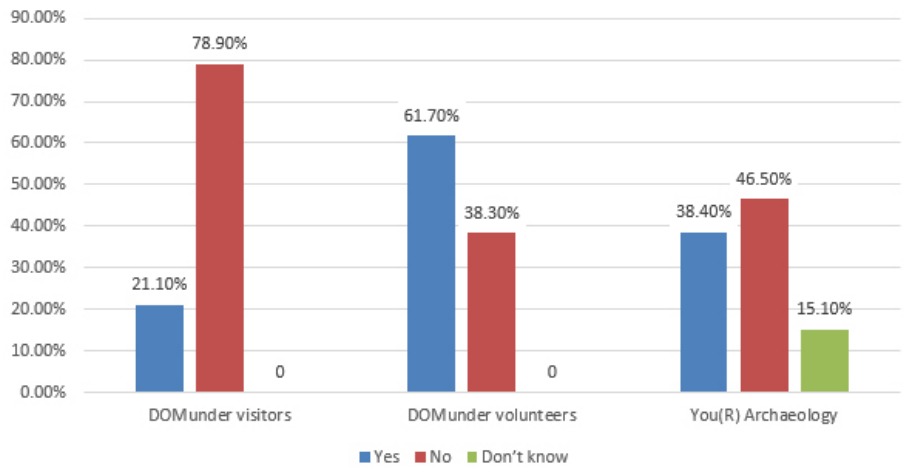


Figure 6.9: Comparing skill development between two out of three case studies for three different audiences (DOMunder visitors n=57, volunteers n=32, You(R) Archaeology participants n=86).

to connect the past with the present. The previously described difference in knowledge impact and 'Understanding of the past', where the visitors of the Invisible Monuments activity scored higher as well, is probably a result of the same cause.

The impact on skill development was asked of visitors (n=57) and volunteers (n=32) of DOMunder, and the You(R) Archaeology contest participants (n=86) – figure 6.9. DOMunder visitors had the opportunity to answer 'yes' or 'no', while volunteers had to score via a Likert scale, ranging from 'Not at all', 'Slightly', 'Somewhat', 'Moderately', to 'Extremely'; participants of the You(R) Archaeology contest could select 'yes', 'no', or 'Don't know'. While the survey categories were unfortunately not the same, we can still distil positive and negative answers, but the comparison below has to be interpreted with care.

It is clear that the volunteers working at DOMunder felt the highest impact on skill development; from the DOMunder chapter, we have learned that highest scores were given for communication and interpersonal skills and lowest for technical skills. Clearly, volunteers have the opportunity to work on communicative skill development, as hosting involves presenting for large groups and guiding them through the exhibition. Participants of the You(R) Archaeology contest had the opportunity to develop their creative skills, and this was mostly done by people who consider themselves not to be professionals (see chapter 4); we can assume that these people felt their creative skills could still be improved. This is supported by the fact that the younger groups scored highest on impact in skill development and oldest people lowest. Visitors of DOMunder scored lowest in comparison, with 21.1% of them indicating to have learned new skills, although they indicated these were mostly related to learning, which is not a skill in this context. From this comparison, we can conclude that archaeology can be used as a conduit for skill development; the subject of archaeology attracts people, but it is the setting of the activity that allows for skill development potential. The nature of the activity, combined with the receptiveness of the participants, depending on age, previous skill development, and other factors, influences the impact in skill development.

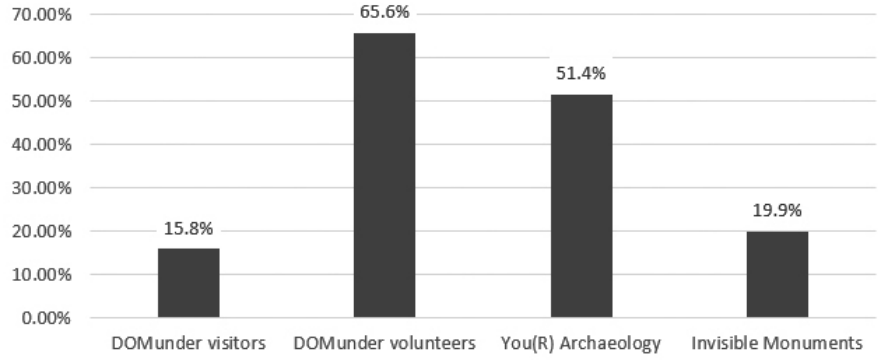


Figure 6.10: Showing the percentages of activity participants who have met new people thanks to their participation (DOMunder visitors n=57, DOMunder volunteers n=32, You(R) Archaeology participants n=70 and Invisible Monuments visitors n=196).

6.2.2.4 Social cohesion

To get insight into the possibilities for archaeology to contribute to social cohesion, respondents of 4 surveys (DOMunder visitors (n=57), DOMunder volunteers (n=32), You(R) Archaeology participants (n=70) and Invisible Monuments visitors (n=196) were asked whether they had met new people during the activity (figure 6.10). It was not specified to what that 'meeting' meant, so we cannot deduct whether people have only seen other people, or actually spoken to them as well. However, for the DOMunder visitor survey the follow-up question asked whether they still are in contact with the people they met, implying that the former question met an actual connection. Participants of the You(R) Archaeology contest were specifically asked whether they took the contest as an opportunity to meet new people, which also implies interaction.

The figure above shows that DOMunder volunteers have met the most people and the visitors of DOMunder the least. In fact, scores of the visitors of DOMunder and those of the Invisible Monuments seem quite comparable. We know that for both activities people participated in the activity in groups, smaller for the Invisible Monuments and larger for DOMunder. We also know that 35.2% of visitors of the former went to the activity with others and 64.8% went alone. Unfortunately, we do not have these numbers for the visitors of DOMunder, but residents indicated that would they visit DOMunder, only 5.7% would go alone and 94.3% would go with someone else. It seems that DOMunder is better suited as a group outing, perhaps because Invisible Monuments has a more individual and or ad-hoc character, one where people do not have to buy tickets in advance to participate. In that sense, DOMunder is more an exhibition than an activity, especially since people can also buy coffee at the bar in the ticket shop, or visit the Dom tower and the Dom church; combination tickets are even sold for that purpose. For both activities applies, however, that once participation commences, visitors are expected to search for information alone, either using a mobile device (Invisible Monuments) or a scanner (DOMunder). While Invisible Monuments does not have a common starting point and time, DOMunder has, resulting in people participating in groups of about 30 to 40. It is striking then that only 15.8% of the DOMunder visitors seem to 'meet' these other people; apparently DOMunder is not a

place to start social conversations or expand ones' social sphere – even less so than for the more individual Invisible Monuments.

For the volunteers, DOMunder had much more social potential, as the majority indicated to have met other people there; at least all volunteers have met each other, but some of them have even met between 11-20 visitors, of which two volunteers indicate to speak to these visitors after working hours (12 indicate to speak to other volunteers after working hours). More than half of the participants of the You(R) Archaeology contest took it as an opportunity to meet other people, especially the youngest participants, aged 12-20.

From the above, we can conclude that the opportunity to meet new people differs per activity, some seem more individualistic, some more social. However, bigger opportunities do not result in meeting more people. Rather, it seems that people use the social possibilities of these activities in the way they want to. In other words, the social opportunities these activities offer are not concrete, nor can they be counted in group numbers, but are relative, dependent on the motivation of the individual visitors. Furthermore, we can state that activities such as You(R) Archaeology, and DOMunder for the volunteers, in which participants have greater control over what they want to achieve by joining, create a bigger impact. This is in line with what Nevell (2013) observes in his research on social impact during the Dig Manchester Community Archaeology Experience in the United Kingdom.

6.2.2.5 Community empowerment and self-determination

Participants of the You(R) Archaeology contest (n=85) and visitors of the Invisible Monuments activity (n=153) shared information about their reasons for joining, through open comments. Residents living close to DOMunder (n=87) shared information about their reasons where they to visit DOMunder in the future, and were also free to comment; volunteers (n=31) shared their reasons for doing volunteer work and could score this from 1 to 5, with 1 being not at all important and 5 extremely important. Open answers were analysed and categories were deducted for those specific case studies; participants were able to select freely so scores could be counted towards multiple categories. As interviewees were free in providing reasons for participating, every case study has its own list of reasons. However, as it turned out, some of these reasons overlap; others are grouped for the sake of comparison (figure 6.11).

From these numbers, we can conclude that people have many reasons to join public archaeological activities but it is clear that the strongest reason for the target audiences was their interest in the topic of archaeology and history. The NEARCH poll-survey shows similar results, as the majority of the respondents see archaeology as a science, providing knowledge to study the past, while only a small percentage – 4% – sees archaeology as a leisure activity (Kajda *et al.* 2017). Some of the respondents talked more about being curious to see what is out there, because for instance in the case of the DOMunder residents, they live close by. Some people also indicate to have joined because of social reasons; this is especially true for the DOMunder volunteers, but the participants of the You(R) Archaeology contest scored high as well. Social reasons were also observed in another case study in the Netherlands (Van den Dries *et al.* 2015). Skill development seemed to be only majorly important for the volunteers, whereas DOMunder residents and the participants of the Invisible Monuments activity feel

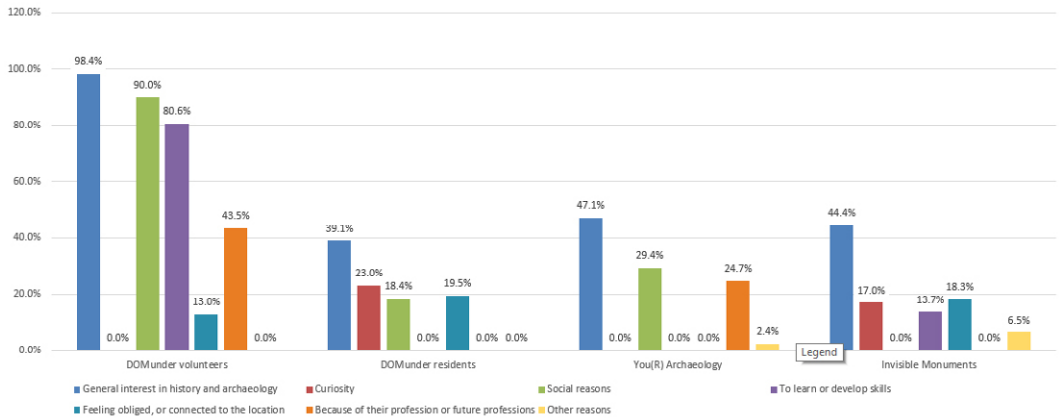


Figure 6.11: Comparison of target audiences' reasons for participating (DOMunder volunteers n=31, residents n=87, You(R) Archaeology contest n=85, and Invisible Monuments activity n=153).

an obligation to join, either because they 'live there so they have to see it', or because they feel a sense of connection to the local artefacts. Volunteers and the participants of the You(R) Archaeology contest joined because of professional interest; some had other reasons.

The above signifies that the topic of archaeology is still the most important factor for people to participate, but they have other 'needs' as well. These needs are interesting for initiators of public archaeological activities who want to create an impact which goes further than the merely educational level, such as for instance social cohesion or to help them in their careers. While the subject of archaeology draws people in, through participation archaeology is also a conduit for social impact.

6.2.2.6 Health and well-being

As described in their respective chapters, the target audiences of the various case studies were asked if they wanted to indicate how much participating impacted their personal emotions. Analysis of the impact of the public archaeological activities gives us an insight in how such activities can contribute to people's health and well-being. DOMunder visitors could indicate their score for 7 'positive' and 2 'negative' emotions; participants of the You(R) Archaeology contest could indicate scores for 8 'positive' and 5 'negative' emotions, and the Invisible Monuments visitors could indicate scores for 9 'positive' and 5 'negative' emotions. DOMunder volunteers could indicate perceived impact on their happiness only (table 6.4). The above indicated difference in scoring possibilities is due to the fact that the methodology for this study developed over time and was improved.

Overall, for the 'positive' emotions, it seems that participating in these public archaeological activities impacted people's energy levels the most, although this number is probably higher because there are no numbers for DOMunder; happiness scored high too, as well as inspired. People indicated to feel the least impact on health, although a 2.6 on average can still be considered decent. As discussed previously in this chapter, DOMunder scores are comparatively low, but we can, at this stage, only guess why this

		DOMunder volunteers	DOMunder visitors	You(R) Archaeology	Invisible Monuments	Average
Positive emotions	Happy	3.7	2.6	3.8	3.8	3.5
	Useful	-	2.0	3.7	3.9	3.2
	Relaxed	-	2.3	3.2	3.3	2.9
	Capable	-	1.9	3.6	3.4	2.9
	Inspired	-	2.9	4.1	3.7	3.5
	Healthy	-	2.0	2.6	3.2	2.6
	Positive	-	2.6	4.0	3.4	3.3
	Energetic	-	-	3.6	3.7	3.6
	Safe	-	-	-	3.1	3.1
	Average	-	2.3	3.6	3.5	3.1
Negative emotions	Anxious	-	1.2	1.9	2.1	1.7
	Angry	-	-	1.3	2.0	1.6
	Depressed	-	-	1.2	1.8	1.0
	Insecure	-	-	1.4	1.9	1.6
	Judged	-	-	1.8	1.5	1.6
	Average	-	1.2	1.5	1.8	1.5

Table 6.4. Weighted average scores for personal emotions per case study group. Highest scores are highlighted in green, lowest scores in red (n=32 for DOMunder volunteers, n=50 for DOMunder visitors, n=82 for You(R) Archaeology, and n=188 for Invisible Monuments.

is the case. Scores for You(R) Archaeology and Invisible Monuments are considerably higher, but it varies per emotion which activity gets the highest scores. Interestingly, participants of the Invisible Monument activity felt the most impact on health, which might be related to the fact that the activity involved physical exercise. Participants of the You(R) Archaeology contest, in contrast, felt most impact in feeling inspired and capable, which might be related to the creative context of the activity; they also felt most positive, perhaps related to the creation and submission of a 'finished' art product of which they can feel proud. Luckily, 'negative' scores are low; anxiety scored highest with a 1.7 on weighted average. We have to bear in mind, though, that the numbers shown above are averages for each activity; as discussed in the respective case study chapters, these numbers differ per age category. Overall, it seems that the younger participants – aged 11-20 for You(R) Archaeology and Invisible Monuments, and aged 31-40 for the DOMunder visitors, scored higher than older participants aged 40 and above. This is interesting, as archaeology has difficulties attracting a younger audience, both in the Netherlands (Van den Dries and Boom 2017; Van den Dries *et al.* 2015; Van den Broek *et al.* 2009) and in Europe (Kajda *et al.* 2017). Apparently, a high impact on personal emotions does not result in higher visitor numbers. Perhaps this is

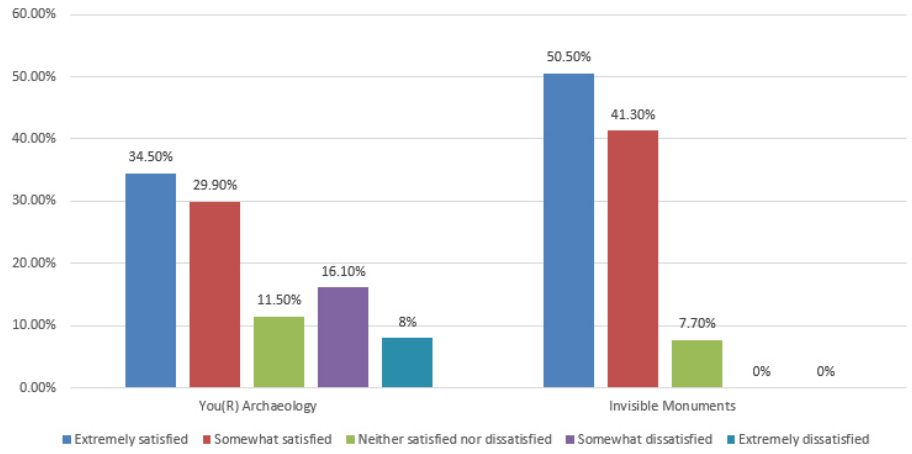


Figure 6.12: Participant's satisfaction after participating in the You(R) Archaeology and Invisible Monument activities.

related to the fact that most of the participants of these activities, including the young participants, were already interested in archaeology, which prompted them to join in the first place. Another theory is based on a study comparable to this PhD thesis, which revolved around impact assessment on participants of a horticultural show in Germany who had the possibility to visit a reconstruction of a Neolithic longhouse. This study shows that 91.6% who visited the reconstruction, had not anticipated to have such an encounter with the past, but they nonetheless show relatively high scores, above the 3.0 mark, on impact, such as happiness, and feeling content and positive (Boom *et al.* forthcoming). This might mean that impacts on personal emotions are perhaps not reasons for people to join, but are rather side-effects of joining, perhaps even subconsciously until the question is asked. In the Oss-Horzak case study (Van den Dries *et al.* 2015) for example, participants indicate substantial health impact while they initially, before participation, thought they would mostly be impacted on education and joined for that specific reason.

In conclusion, based on the numbers above we can state that it depends on the nature of the activity, which is in turn based on the activity goals, how people are impacted on personal emotions; different activity contexts generate a different set of impacts. We can also state that as many of the averages listed above score above the 3.0 mark, out of a possible 5.0, impact is quite considerable, However, what this impact means for people, and why they seem to overlook this type of impact, is still unclear.

In the You(R) Archaeology contest and Invisible Monuments surveys, people were asked about their feeling of satisfaction after participation (figure 6.12).

In comparison, it seems that visitors of the Invisible Monuments activity were more satisfied after participation then the participants of the You(R) Archaeology. This could reflect the fact that participants of the You(R) Archaeology contest were not satisfied with their submission, as described in the You(R) Archaeology chapter. While there is a difference between the two case studies in scores, we can conclude that both activities had a positive impact on people in regard to their satisfaction. The same can be said for visitors of DOMunder, although the question in that survey entailed sense

of accomplishment rather than satisfaction. Thirty-seven percent of the respondents there (out of 53), either Agreed or Strongly agreed to the statement 'After my visit to DOMunder, I felt a sense of accomplishment'. This is somewhat lower than the almost 90% positive score (Extremely satisfied and Somewhat satisfied) for You(R) Archaeology, and the more than 90% positive score for Invisible Monuments, but can still be considered high. We could argue that visitors of at least the DOMunder and You(R) Archaeology activities did know what to expect as DOMunder visitors had to buy tickets in advance, and You(R) Archaeology participants had to read the contest guidelines. For the Invisible Monuments, this was slightly different as visitors could 'jump into' the activity at any time by scanning the QR-code on the monuments and reading the information. However, we know that many of the Invisible Monuments visitors were invited via media campaigns, especially in the local universities. The above could mean that all three activities were successful in fulfilling visitors' expectations; visitors felt that their reasons for joining were sufficiently offered by the activity. Boom *et al.'s* study (forthcoming) shows that visitors who did not know what to expect scored less high on satisfaction. In that study, only 59.1% of the visitors indicated to feel a sense of accomplishment.

6.2.2.7 Closing remarks

It seems that overall, the activities attracted an audience quite similar to what we often see in cultural heritage activities; mostly older and high-educated (although, contrary to European findings (Kajda *et al.* 2017, Van den Dries and Boom 2017; Maeer *et al.* 2016), the activities attracted mostly a female audience, except for the DOMunder volunteers. Furthermore, visitors from all case studies indicated that their interest in heritage and archaeology was the main reason for joining; other reasons, such as social reasons, where less important. We also have reason to suspect that visitors deliberately visited the heritage sites, knowing what to expect. In this sense, it seems that the activities did not attract new audiences.

Overall, we could state that these activities are quite successful in delivering a pleasing activity and have a positive impact on people's lives. This is in-line with what Fujiwara *et al.* (2014) argue when they state that heritage has a positive impact on people's life satisfaction, and this impact is higher than participating in sports and arts. We see that younger participants indicate a higher impact on several indicators and although variations exist in case studies, overall this impact decreases when people get older. We would expect that happier and more satisfied people would visit more than those who feel less so. It is strange then that the case studies attract a higher number of older participants. Perhaps, sociocultural impact is not a determinant for attendance but a side-effect of visiting. Fujiwara *et al.'s* study (2014) indicates that a lack of time, transports, costs, and poor health prevents people from visiting heritage activities; people without children and who are not full-time employed are more likely to visit. Perhaps children, and their parents, are simply pre-occupied with other things and have therefore no inclination to visit heritage activities, although there are of course exceptions to this.

In terms of impact, it seems that not an increase in knowledge alone, but rather a myriad of factors determines the level of sociocultural impact, of which people's enthusiasm, reasons for joining/expectations, and the setting of the activities seem most

important. However, overall, we can state that these public activities in archaeology do positively impact people on a sociocultural level, without this even being the main *activity* goal. However, it seems that the context, or nature, of the activities and the opportunities they bring does engender impact. Of course, the contexts of these activities are based on their activity goals, but it seems that not the goals themselves, but rather the way the activities aim to meet these, are important. These aspects are concurrent with Pendlebury *et al.'s* observation that "Cultural heritage must be considered an opportunity space in which impact *may* occur" (2004, 12). These are important considerations for heritage managers who want to organize similar public activities; through these public activities they will generate positive sociocultural impact, increasing people's quality of life, but it is not yet clear what this impact means for the actual visitors.

6.2.3 Recommendations – a 'step-by-step' guideline

The analysis of the case study data in their corresponding chapters, as well as the comparison between the case studies results in this chapter, are aimed at answering the research questions posed in the introduction chapter of this thesis. This thesis showed that public activities in archaeology can – and do – contribute to sociocultural impact, and quite significantly so, and that the level of impact is dependent on a variety of factors. By not only discussing the case study results, but also providing a commensurable dataset, with the raw data shared open access[42], this thesis answers the call from scholars to 'get in the field' and share findings (Crossick and Kaszynska 2016; Cultural Heritage Counts for Europe Consortium 2015; Burtenshaw 2014, 2013; Nevell 2013; Heritage Lottery Fund 2010; Labadi 2008; Selwood 2002).

Because the research in this thesis is unique in the sense that it focusses on sociocultural impact, and incorporates not only national, but also cross-border activities in its comparison, it is exploratory in nature. As the survey numbers from all three case studies are not fully representative, results are indicative rather than absolute and outcomes have to be interpreted with care. However, they present tantalizing trends in their results. From these findings, as a pioneering aid for future research, a first version of a guideline for professionals is presented here. This guideline will help heritage managers and initiators of public activities in archaeology in streamlining their activity outcomes and steering the level and type of sociocultural impact they create. The guideline is best used in the design phase of the activity as it covers the full spectrum of the creational process, starting with the selection of the type of sociocultural impact, followed by the creation of corresponding activity goals (table 6.5). These two steps should form the basis of any public activity because, as discussed previously, they form the most important factor in steering both level and type of sociocultural impact. The next steps are to select a target audience, and to define the contents and setting of the activity. Then the activity can be developed, executed, and finally altered on the basis of feedback.

Multiple types of sociocultural impact can be selected for one single activity, for instance Social Cohesion and Health and well-being, but each type of sociocultural impact requires its own (set of) well-articulated activity goal(s). Target audience, topic, and settings, however, can overlap.

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42 http://www.nearch.eu

Step 1	**Select type of sociocultural impact** (multiple types can be selected) • Local Image and Identity • Personal Development • Social Cohesion • Community Empowerment and Self-determination • Imagination and Vision • Health and Well-being
Step 2	**Create corresponding activity goal(s)**. These activity goals form the basis of the activity and influence the setting, implementation, and execution of the activity. They should be well-articulated, unambiguous, and connected to the type of sociocultural impact. While the topic of archaeology is the strongest incentive for people to join an activity, some people are attracted by the social possibilities. For instance, volunteers are very eager to work with other people, both colleagues and the public. This means that if the activity goal is to create impact on social cohesion, one might think about providing volunteer jobs first before thinking about the contents of the actual activity. In any case, when 'people getting together to discuss an archaeological topic' is the goal of an activity, it is not enough to only provide a discussion space – people should be actively encouraged to connect.
Step 3	**Select a target audience.** The selection of the target audience is dependent on the activity goals as people's age influence seem to influence both the level and type of impact. Younger people are more impacted on personal emotions such as happiness and usefulness. This means that if the goal is to achieve a high impact on happiness, a younger audience will be more susceptible and will allow this goal to be achieved more easily.
Step 4	**Define the contents and setting of the activity.** At a more tangible level, these two factors are dependent on all the previous steps and require both practical and creative thinking. This research showed that a creative activity attracts younger people, including children, whereas a more traditional setting attracts more young adults. We also saw that impact on satisfaction is connected with people's expectations rather than the setting of the activity. This means that if the goal is to let people leave satisfied after the activity, communication about the contents and setting of the activity should be clear – people are most satisfied when they 'get what they came for'.
Step 5	**Develop, execute, and alter activity if necessary.** The development and execution of the activity are dependent on the previous steps. The direction of development should be regularly checked to see if it follows the previously determined steps. The activity should be monitored regularly to prevent unforeseen mismatches between execution and activity goals. If necessary the activity can be altered either during execution, or after the activity has ended to prepare for a next iteration.

Table 6.5: A step-by-step guideline to steer impact creation.

6.2.4 Cost Benefit of the case studies

A note has to be made about the cost-benefit, or return on financial investment, of the three included case studies. A Social Return on Investment calculation (SROI) course[43] was followed as a method to incorporate financial variables into the sociocultural impact analysis in order to 'bridge the gap' between the previously mentioned economic view on the one hand and the cultural view on the other (see Burtenshaw 2014). Results from the Oss-Horzak survey, referred to previously in this dissertation, were used to calculate a cost-benefit ratio. While the ratio was positive – for every euro invested, 1.4 euros were returned in social capital – the methodology was rather difficult to apply for such an archaeological activity, which only lasted for half a day and did not have clear sociocultural goals set. As such, the outcome of this analysis is not quite reliable, and can be heavily debated. This was also the main feedback received during the course from the course instructor; short activities such as a visit to, or participation in, a public activity, taking only a couple of hours, and do not create *impact,* but rather

43 http://www.sinzer.org/

affects people in the short term.[44] As the outcomes were both short term, and not connected to the goals of the activities, it proved difficult to perform Social Return on Investment calculations. To illustrate, a representative from a Dutch telecom provider used SROI to calculate the social benefits of using their assets as a means to connect people together, a clear goal of the company (apart from making profit as a commercial company). For this person, it was much easier to calculate impact, as numbers were readily available and the structure of the calculation was clear.

It is unfortunate that SROI turned out to be a methodology not quite applicable for this kind of research, because it would be interesting to incorporate costs into the equation. While this could not be done via the SROI method, it can still be stated that the differences in costs involved did not create a difference in impact. DOMunder, for instance, is by far the most expensive activity, costing – in total – more than 5 million Euro's.[45] In contrast, both the You(R) Archaeology and the Invisible Monuments activities were much cheaper in realization, with the former costing about 10.000 euro's, and the latter about 3500 euro's. As we have seen, visitors of DOMunder were much less impacted upon in a variety of factors, whereas visitors and participants of the other activities painted a much more positive impact picture. This means that it is not the financial input, but rather the goals of the activity and how these are executed, which engenders a higher impact, and that this impact generation can be already achieved at a relatively low cost.

6.3 Sustainable Development

6.3.1 Introduction

Sustainable Development connects (inter-)national policymaking with the cultural heritage management field; its nexus lies where the economic, cultural, social, and environmental impact of cultural heritage are connected with societal challenges, such as social cohesion and inclusion, better healthcare, and economic prosperity and revenue.

In this section, it will first be described how the concept of Sustainable Development came into existence and how it is based upon two dichotomous focal points in the history of development policy. After this, the connection between Sustainable Development and culture will be discussed by focusing on the debate revolving around the inclusion of culture as a fourth pillar to Sustainable Development and the potential benefits this will provide for the archaeological field. This link is the reason why Sustainable Development forms the backbone of this PhD research, covering the concepts of Quality of Life and Subjective Well-being, and as such, sociocultural impact.

6.3.2 Emergence of the concept (within cultural heritage management)

According to the European Commission, "Sustainable Development stands for meeting the needs of present generations without jeopardizing the ability of future generations to meet their own needs – in other words, a better Quality of Life for everyone, now and for generations to come. It offers a vision of progress that integrates immediate and

44 Jeremy Nicholls, personal comment

45 https://museumactueel.nl/museum-domunder-heeft-een-tekort-van-16-miljoen-euro/

longer-term objectives, local and global action, and regards social, economic and environmental issues as inseparable and interdependent components of human progress".[46] Used as fuel for a decade of debates and writing about the subject, a shorter, perhaps more concise, definition comes from the World Commission on Environment and Development (the Brundtland Commission), which sees Sustainable Development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987, 43). An aggregation of two words, the phrase interlinks the ideas of economic development, a self-perpetuating force, with ecological sustainability which entails the preservation of a range of environmental values through maintaining a balanced ecosystem in the natural world (Throsby 2001). During the 60's and 70's of the last century, the mythological Great Idea of Progress, which entailed the idea of an unending and continuing economic and technological progress – fueled by the economic boon after the second world war – was debunked. Instead, "people became aware of the threats which rapid population growth, pollution, and resource depletion posed to the environment and their own survival as humans" (Du Pisani 2006, 89). During the early 1970's a group of prominent researchers published a report titled The Limits of Growth, which became well-known as "the key moment in the transformation of disparate anxiety about environmental problems into more focused discussion of an alternative to present-day society" (Kenny 1994, 229). In this report, the authors painted a dark picture in relation to these environmental problems:

> *If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years. The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity.*
> Meadows (1972, 23)

These issues necessitated solutions. As a result, new technologies needed to be developed to counter the damage caused by the industrialization and consumerism and to help contribute to people's overall Quality of Life (Von Wright 1997, 12); Sustainable Development, as a compromise between both paradigms, was put forward (Du Pisani 2006).

In 1994, John Elkington envisioned Sustainable Development to be the result of a synergy between three different pillars important for corporate trade and businesses. According to him, companies need to have in place three bottom lines, namely corporate profit, a 'people' account, and a 'planet' account, as a way to contribute to a social responsibility agenda as an answer to contemporary societal issues (Elkington 1997). The names of these pillars have changed slightly over time, and are now more commonly referred to as the economic, societal, and environmental pillars. Called the Triple Bottom Line, this conceptualization has been the common ground for numerous policy documents and (corporate) standards in the 20th and 21st centuries.

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46 http://ec.europa.eu/environment/eussd/

At the present, Sustainable Development is part of both smaller and larger international policies geared towards creating a better sustainable future for the world and its inhabitants. Perhaps the best-known and most influential example prompting policy worldwide is the follow-up agenda of the 'Millennium Development Goals'; the '2030 Agenda for Sustainable Development'. Put forward in 2015 by the United Nations, incorporating 17 Sustainable Development Goals or SDG's, this "agenda is a plan of action for people, planet, and prosperity [and] seeks to strengthen universal peace in larger freedom, [thereby recognizing] that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for Sustainable Development".[47]

Within the policy of the European Union, the most relevant framework document regarding Sustainable Development is called the 'Europe 2020 Strategy for smart, sustainable and inclusive growth' (European Commission 2010). To answer to the financial crisis, which has "wiped out years of economic and social progress and exposed structural weaknesses in Europe's economy […] Europe 2020 puts forward three mutually reinforcing priorities; Smart growth – developing an economy based on knowledge and innovation; Sustainable growth – promoting a more resource efficient, greener and more competitive economy; and Inclusive growth – fostering a high-employment economy delivering social and territorial cohesion" (European Commission 2010, 3).

Both agendas are based upon the Triple-Bottom-line as proposed by Elkington. However, both make no mention of cultural heritage as a driver for Sustainable Development. Because many scholars, institutions and key political players within the heritage field believe that culture contributes to Sustainable Development, but not within, or through, the triple-bottom-line, a fourth pillar – culture – had to be introduced.

6.3.3 Adding to the triple bottom line: culture as a fourth pillar

During the 1990's the word sustainable appeared more often in cultural heritage policy documents and in more than half of the documents it was combined with the word development (Veldpaus *et al.* 2013, 11). Within cultural heritage management policy, the report of the World Commission on Environment and Development, called Our Creative Diversity, was one of the first to refer to Sustainable Development (World Commission on Environment and Development 1995), although according to David Throsby the report still adopted the term in relation to environmental and ecological issues; a line between culture and sustainability was merely suggested (Throsby 1997). As an answer to this, Throsby called for a separation of the word sustainable with its environmental connotations, proposing to use it in "its substantive intrinsic sense connoting long-term self-supporting viability of any type of system" (Throsby 1997, 10). In relation to cultural capital, which "exists as a source of cultural goods and services which provide benefits both now and in the future" (Throsby 2001, 53), Throsby identifies six principles which define sustainability. The first is 'material and non-material Well-being', which can be seen as a both a material direct-utility derivative of the economic and cultural values people attach to cultural heritage and as non-material benefits adding to the Quality of Life (Throsby 2001). Secondly, Throsby identifies 'intergenerational equity and dynamic efficiency' as contributing to sustainability in relation to cultural heritage. Intergenerational equity, or

47 https://sustainabledevelopment.un.org/post2015/transformingourworld/publication

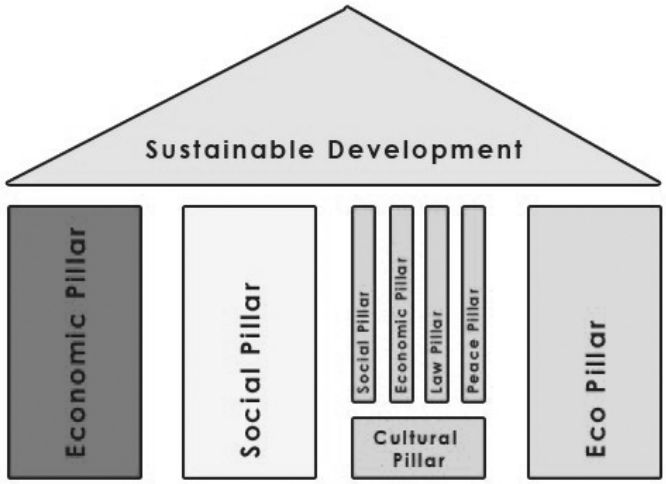

Figure 6.13: Culture Based Development – 4th Pillar of Sustainable Development. After Tubadji 2010, 198.

intertemporal distributive justice, refers to the fairness and justness of the distribution of welfare, utility and resources between generations and here refers to the 'stock of cultural capital' we inherited from our forebears and are handing over to future generations. Dynamic efficiency could be seen as a tool to achieve this goal, as it describes a way to achieve maximum net present value of cultural heritage, which can then be distributed in a dynamical and ethical way (Throsby 2001). Thirdly, 'intragenerational equity', is a principle which asserts the rights "of the present generation to fairness in access to cultural resources and to the benefits flowing from cultural capital" (Throsby 2001, 56), a seemingly 'cultural' equivalent of the definition on Sustainable Development by the World Commission on Environment and Development. As a fourth principle 'Maintenance of diversity' is put forward. This concept revolves around the importance of diversity in culture as it has the capacity to yield new capital formation (Throsby 2001). The 'precautionary principle', states that "decisions which may lead to irreversible change should be approached with extreme caution and from a strongly risk-averse position" (Throsby 2001, 57) and lastly, the 'Maintenance of cultural systems and recognition of interdependence'-principle underlines the proposition that, just as in the natural world, "no part of any system exists independently of other parts" (Throsby 2001, 57). In culture this means that, for example, by neglecting the conservation of cultural heritage this can result in the loss of value and eventually will place cultural systems in jeopardy, causing the loss of welfare and economic output (Throsby 2001).

Annie Tubadji, in her article called 'See the forest, not only the trees: Culture Based Development (CBD) Conceptualizing Culture for Sustainable Development Purposes' (2010), proposes a framework which includes culture as a fourth pillar contributing to Sustainable Development under the Culture Based Development header (figure 6.13).

As can be inferred from the figure, within this fourth cultural pillar, Tubadji recognizes four channels with which culture can make its impact on Sustainable Development, or in her own words "there are four channels of utilization of culture as a resource" (Tubadji 2010, 197). The social pillar of culture refers to the impact of culture on 'health, education, gender equality, ethnic diversity, community vitality, and social capital', and tracks how this affects societal Well-being, whereas the economic pillar of culture encompasses

'creativity, cultural tourism, and cultural industries as mechanisms' and focuses on economic impact and growth (Tubadji 2010, 197). The law channel focuses on the roles and contributions of legal policy, institutions, and frameworks to Sustainable Development towards cultural legislation and how that affects social Well-being and economic growth; the peace channel encompasses topics such as social cohesion, identity, and conflict management (Tubadji 2010). These four channels also comprise both the of Quality of Life and Subjective Well-being concepts, but from a cultural heritage point-of-view. In this sense, and as elaborated on before, culture can be seen as a conductor, here divided into four different channels, through which Sustainable Development is achieved. This means that culture itself, meaning the intrinsic values attached to it, does not contribute to Sustainable Development but its impact is based on culture as a utilization, or lens, of values turned manifest. This connects well with Pendlebury *et al.*'s observation that "Cultural heritage must be considered an opportunity space in which impact *may* occur" (2004, 12) and with the outcomes of the case study analyses in this thesis. This observation also relates heavily to the holistic landscape-based approach which considers heritage not as a goal in and of itself, but as placed within a social, economic, ecological and cultural context (Cultural Heritage Counts for Europe Consortium 2015).

Within the cultural heritage field, and more specifically in the context of World Heritage, we can observe a strong lobby to include cultural heritage as a fourth pillar contributing to Sustainable Development in major international frameworks such as the Europe 2020 Strategy for smart, sustainable, and inclusive growth, and the UN 2030 Agenda for Sustainable Development. Reasons for this are based on the theoretical works of Throsby, Tubadji, and others, but also on an increasing body of evidence from the field proving that cultural heritage indeed contributes to Sustainable Development. Moreover, the wide range of opportunities the inclusion into those frameworks could bring, including financial benefits through for instance, job opportunities and international collaborations, adds to those motivations. UNESCO, for example, writes that "Culture, in all its dimensions, is a fundamental component of Sustainable Development. As a sector of activity, through tangible and intangible heritage, creative industries and various forms of artistic expressions, culture is a powerful contributor to economic development, social stability and environmental protection. As a repository of knowledge, meanings and values that permeate all aspects of our lives, culture also defines the way human beings live and interact both at local and global scales" (UNESCO 2010, 2). In 2011, ICOMOS released their Paris Declaration on Heritage as a Driver for Development that "forms part of a series of initiatives and actions that have been undertaken by ICOMOS over many years in order to promote a development process that incorporates tangible and intangible cultural heritage as a vital aspect of sustainability, and gives a human face to development (ICOMOS 2011, 1)". Another relevant document is the UNESCO Historic Urban Landscape Recommendation, which "addresses the need to better integrate and frame urban heritage conservation strategies within the larger goals of overall Sustainable Development, in order to support public and private actions aimed at preserving and enhancing the quality of the human environment".[48] The recommendation also

48 See http://portal.unesco.org/en/ev.php-URL_ID=48857&URL_DO=DO_TOPIC&URL_SECTION=201.html

mentions and emphasizes the importance of the environment in relation to cultural heritage, which can be deemed new in heritage policies (Cultural Heritage Counts for Europe Consortium 2015). UNESCO also lobbied for the integration of natural and culture heritage contributing to Sustainable Development during the 'RIO+20' UN Conference on Sustainable Development in June 2012 in Brazil. This ultimately culminated in a paper called 'the Hanghzou Declaration: Placing Culture at the Heart of Sustainable Development' (UNESCO 2013). This document stresses once again the impact of culture on Sustainable Development and proposes culture as a fourth pillar, equal to the other pillars (Cultural Heritage Counts for Europe Consortium 2015). In regard to heritage in particular, the declaration states that "rehabilitation of cultural heritage and cultural activities should be prompted to enable affected communities to renew their identity, regain a sense of dignity and normalcy [and] inclusive economic development should also be achieved through activities focused on sustainably protecting, safeguarding, and promoting heritage" (UNESCO 2013). However, while the document states that 'development is shaped by culture and local context' and that therefore culture should be included as a fourth fundamental principle of the post-2015 UN development agenda (UNESCO 2013), we now know by reviewing the UN 2030 Agenda on Sustainable Development that this has not yet happened.

6.3.4 Wrap-up

While the lobby for the inclusion of culture as a fourth pillar into the UN 2030 agenda failed, this does not mean that the discussion is irrelevant or futile. Indeed, the opportunities inclusion might provide are worth the numerous efforts to not only push for a strategic inclusion of culture into the Sustainable Development framework, it also warrants research such as the current study or studies and activities performed by the NEARCH project under the D section, called 'Archaeology in a changing economy: towards sustainability' (NEARCH 2013, 8). The framework of Sustainable Development thus functions as a point of convergence to which value and impact assessment of culture, or in this case archaeological heritage, can be most naturally – and strategically – attached.

Furthermore, to add to the strength of argumentation for the inclusion of culture into Sustainable Development, many have advocated for more and better research on both economic and sociocultural impact, as there is a lack of comprehensive qualitative and quantitative evidence, which translates impact into 'readable' and, perhaps more importantly, commensurable outcomes. This lack of evidence is especially dire for sociocultural impact of cultural heritage – a fact recognized by various scholars and institutions (Cultural Heritage Counts for Europe Consortium 2015); Taylor *et al.* 2015; Burtenshaw 2014). According to the Cultural Heritage Counts for Europe Consortium, such an overview would "form a credible basis for policy development that is statistically valid and reflects all aspects of the subject" (Cultural Heritage Counts for Europe Consortium 2015, 34). The current research answers this urgent call for data, thus contributing unique new material to the field of Sustainable Development, while also proving the validity of this type of research into Sustainable Development by proving that cultural heritage does indeed positively impact people's lives.

7

Conclusion

This chapter concludes this study by answering the main research question stated in the Introduction; **what are both the depth and breadth of the sociocultural impact of public activities in archaeology?** It will also conclude the secondary objective, which was to connect sociocultural impact research with Sustainable Development.

This explorative research took place within the European NEARCH project and analyses survey data gathered from three case studies within a sociocultural framework. Each case study has its own *research* and activity goals; the former linked to specific research questions, the latter based on goals set by the initiators of the activities. Both goals were translated into relevant indicators and, ultimately, into survey questions for each specific case study. Together, these goals form the offset against which impact is analysed. They are contextualized within a methodological framework, which was heavily based on the works of François Matarasso (1997) and the North East Regional Museums Hub Tool;[49] the divide between social aspects and educational aspects is based on the values typology created by Randall Mason (2002).

In total, five specifically tailored surveys were performed; three for the DOMunder case study, one for the You(R) Archaeology case study, and one for the Invisible Monuments case study. Although a substantial dataset was obtained, none of the surveys received enough response for the data to be fully representative of the entire corresponding population. This means that the analysis of the data, including discussions and recommendations based on that data, are indicative rather than absolute, and warrant careful interpretation.

In terms of demographic composition, each activity attracted a different type of public, an observation which can be attributed to the fact that each activity had a different aim on public outreach; You(R) Archaeology, for example, attracted more children, probably because there was a specific children's category in the contest, and the Invisible Monuments activity attracted many scholars – they were actively invited by the initiator of the activity. DOMunder can be seen as the most 'traditional' of the three activities, in the sense that it is based on an archaeological exhibition. It also attracted the oldest audience, more than 40% of the visitors being older than 61+. While the other activities also attracted more older than younger individuals, most of them were aged between 36-60. Surprisingly, as the NEARCH poll-survey shows

49 http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources

that females are less active in participating in archaeological activities[50], all activities attracted more female visitors; however, this pattern is not followed by the DOMunder volunteers. In comparable studies, we see older, higher-educated men visiting heritage activities most often of all demographic categories (see for instance Kajda *et al.* 2017; Van den Dries and Boom 2017; Maeer *et al.* 2016). Only DOMunder seems to come close to following this generally observed pattern, and even then, only in terms of age. Other activities seemed to attract an audience which differed from what we usually see in terms of demographics. A non-demographic defining factor of the participants was that they were already interested in archaeology and heritage, which was their primary reason for joining these activities. Therefore, none of the activities drew an 'unprepared' audience (which is in contrast to the before mentioned Landau case study which had 'collateral visitors', see Boom *et al.* forthcoming).

Overall, both the type and levels of impact seemed to differ per case study and per audience. However, there were also some common observations. One of which is that it seems that impact in connectedness to a certain locality, in this study defined as local, national, and international, is dependent on the locality of the archaeological subject. In other words; a focus on local archaeology, even when it is connected, narratively, to a broader geographic context, results in people feeling more connected to that specific area. This feeling of connectedness is also possibly mirrored in civic pride, as it too shows a relationship with locality.

All three case studies had a positive impact on the knowledge of the participants, but it seems that the level of impact for this aspect is dependent on both the goal(s) of the activity and the type of audience. You(R) Archaeology generated the least impact on knowledge, the Invisible Monuments activity the most. The impact on knowledge for DOMunder visitors is comparable to Invisible Monuments, if somewhat lower. You(R) Archaeology had as goal for people to express their creativity; in contrast, both Invisible Monuments and DOMunder wanted to inform their participants. The difference in audience between DOMunder and Invisible Monuments, with the former having much more older and, possibly, less higher-educated visitors, might be the cause for the difference in impact on knowledge. From the surveys, it cannot be deducted why this is the case. It can be ventured that older people already know more about archaeology and heritage, which results in them being impacted on less for that aspect. However, it seems that older people feel less impact overall. Perhaps they have a different sense of perception when it comes to impact. Time investment does not seem to be a causal factor for impact in knowledge between activities; shorter activities, such as Invisible Monuments, engender a higher impact. This finding can be of value to creators of public archaeological activities. Furthermore, there seems to be a connection between impact in knowledge, and the impact on people's emotions, such as happiness and usefulness, as people who indicate a higher impact on knowledge also indicate a higher impact on those aspects. However, from this data alone we cannot deduct whether a stronger impact on knowledge creates a stronger impact on personal emotions, or vice versa.

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50 http://archaeologydataservice.ac.uk/catalogue/adsdata/arch-2749-1/dissemination/pdf/NEARCH_Image_of_archaeology_Europe_OK.pdf

The impact on people's motivation and creativity appears mostly dependent on the nature of the activity and the opportunities it brings. A creative context, such as the You(R) Archaeology contest, provides opportunities for people to work on their skills, apply them, and reflect on their capabilities. As a result, it had the highest impact on many of the attributes studied. Age wise, it seems that an activity focussing on creativity affects mostly children and teenagers, whereas a more traditional setting and activity, such as DOMunder, impacts young adults. Interestingly, participants of the You(R) Archaeology contest scored highest on impact in 'understanding of the past', followed by Invisible monuments visitors and, lastly by visitors of DOMunder. This leads to the conclusion that for people to better understand the past, activities do not have to take place in a specific location. Rather, it seems that it helps people when they see different locations, either physically by following a trail, or digitally by performing desk research. This hypothesis can also be attributed to the impact on people's ability to better understand the value of archaeology. It appears that a more diverse setting causes people to extrapolate local information to a broader context, and allows them to better connect this with their own identities.

People joined primarily because of the archaeological and historical theme, but also might have other reasons for joining. This implies that it is mainly the subject that attracts visitors and participants, but that these participants might have multiple motives. DOMunder volunteers, for example, joined because they would like to socialize and work together with other people, and to increase their skills. This, then, resulted in them feeling the most impact in these factors. You(R) Archaeology provided participants with a reason for working together; children created artworks together with their parents. While DOMunder provides visitors with ample opportunity to meet new people, this is not the goal of the activity. Visitors are not urged to work together, nor do they seem to want to, and this is reflected in the impact scores. In this sense, cultural heritage does indeed provide a platform for impact, dependent on the nature and goals of the activity as well as peoples personal motivations. In this sense, I agree with Pendlebury *et al.* (2014, 3), who state that cultural heritage provides a stage for societal regeneration.

The impact on people's emotions, such as happiness, usefulness, and on healthiness, turned out to be dependent on the nature of the activity. A creative context, such as You(R) Archaeology, evokes a stronger impact on whether people feel creative and inspired, whereas an outdoor activity such as Invisible Monuments creates a stronger impact in the physical sphere, such as feeling healthy and energetic. DOMunder visitors scored lowest on all personal emotion aspects, including the negative ones. From the survey, it cannot be deducted as to why this is the case; it can have several reasons, such as the overall older age of visitors, their motivations, or the setting of the activity. What is noted in all three case studies, however, is that people aged 11-40 feel a stronger impact in the emotional sphere than people aged older than 40. From this, we can conclude that a stronger impact in personal emotions does not result in attracting more visitors, as the cultural heritage sector in general struggles with attracting younger people (see also Kajda *et al.* 2017; Van den Dries and Boom 2017). It seems that people do not realize that participating in a public archaeological activity creates a variety of positive impacts; it is worthwhile to put more effort in attracting especially younger people as they are impact the most.

Impact studies provide the heritage field with qualitative as well as quantitative data to base their argumentations on and shows that archaeology, through cultural heritage, can contribute to Sustainable Development. Impact of Action shows not only that public activities in archaeology engender positive impacts on people, both on a social and a cultural level, but also that these impacts can be quite substantial. Archaeology, then, forms more than just an interesting pastime for people – it also contributes to societies current issues.

Acknowledgements

Doc: "See you in the future!"
McFly: "You mean the past?"
Doc: "Exactly!"

Four years – because that is what it took to finish this PhD research – is a window of time in which many things are bound to change, certainly if you're still (relatively) young. While I had my share of 'challenges', I also had many amazing, awesome, inspiring, and sometimes even eye-opening moments. Many of which can be attributed to the wonderful people who not only helped me complete my research, but also become stronger in life while doing so. I'm forever grateful to them.

To prof. dr. Willem Willems, for his approval of my research proposal, while acknowledging it 'wasn't perfect' and that 'there was some work to be done'; I shared his love for Dutch directness. To prof. dr. Jan Kolen, for his willingness to take on the role of promotor, even at the last stage of the trajectory. To Dr. Monique van den Dries, for teaching me the ropes of being an academic researcher, her continuous support, and supervision. To the NEARCH project members for their support and for making me feel part of the family. I had some fun moments traveling all over Europe and meeting each and every one of you. Special mentions, however, go to Eleftheria, for teaching me how to dance, and to Michal, for teaching me how to drink Vodka. To Paul, for having someone 'in the field' to talk to. To my ex-colleagues & Leiden friends, Eloise, Eldris, Uditha, Mariana, Maria, Mara, Martijn, Victoria, Jelena, and Arnout, for having good conversations and general good times. To Tijn, for his help with the DOMunder case study.

To my parents, Cees and Yvonne, for always believing in me, blindly. To my sister, Rianneke, for her love and friendship. To Epics305, Maurits, Niels, Sven, and Sjoerd, for their unshakable support in my quest to find them new dinos, and for being there for me when I needed it most. To VALUE, Csilla, Angus, Aris, and Vincent, for their friendship, support, and giving me the opportunity to procrastinate while being useful (is it still procrastinating then?). To Raymond-san for joining me on my trip to Japan (feels like I was there only yesterday). Getting lost in rainy Kyoto was one of the most amazing moments in my life. To Rosanne, for her patience. To Sjoerd2 (Van der Linden, -he just dropped by later-) for his friendship, support, and shared love for boardgames. To Deef, for being positive.

To Jessica, for allowing me to feel at home.

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List of figures

Unless otherwise specified, all figures created by author

Cover: The Imprint of Action
1.1: *The relationship between value and impact as sides of the same 'coin'.*
Cultural Heritage Counts for Europe Consortium 2015, 53.
1.2: *Translating Matarasso's headings to relevant indicators, and finally into case specific survey questions.*
Scheme after the North East Regional Museums Hub Tool.[51]
2.1: *General classification of cultural heritage.*
After Klamer and Zuidhof 1998.
2.2: *Ladder of citizen participation.*
After Arnstein 1969, source: https://lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html.
2.3: *Holistic four domain approach to the impact of cultural heritage.*
Cultural Heritage Counts for Europe Consortium 2015, PAGE.
2.4: *Social impacts map.*
Bollo 2013, PAGE.
3.1: *The city of Utrecht lies in the center of the Netherlands, connecting East and West.*
Google, Google Maps.
3.2: *Excavations at the Domplein Square through the ages. The picture on the left was taken in 1933, the one on the right in 2012.*
Initiatief Domplein 2013 (left), Rijksdienst voor het Cultureel Erfgoed (right).
3.3: *Map of the inner city of Utrecht. The area covering the geographic boundary of the Dom Quarter is presented in blue. In this area, we counted 1053 residential houses.*
After Google, Google Maps.
3.4: *Showing the months in which the respondents visited DOMunder. Numbers are absolute (n=60).*
3.5: *Left: Age composition of the respondents (n=62). Right: Gender composition of the respondents (n=63).*
3.6: *Distance to the DOMunder activity (n=60).*

51 http://www.artscouncil.org.uk/generic-social-outcomes/additional-gso-resources

3.7: *Difference in increase of visitor connection between Utrecht and the Netherlands. Red bars indicate number of times a certain score was given for connectedness to the Netherlands, blue bars indicate this for Utrecht. Numbers are absolute (n=63).*
3.8: *Top: Connectedness to Utrecht for Non-Utrecht and Utrecht residents (n=63). Bottom: Connectedness to the Netherlands for Non-Utrecht and Utrecht residents (n=63).*
3.9: *Connectedness to the various time periods (n=63). Figures shown are weighted averages. Note the clear divide between the two groups of time periods.*
3.10: *Scores for the questions 'did you learn something new during your visit' (left) and 'did you learn more than you expected' (right). Numbers are absolute (n=57).*
3.11: *Scores for the questions 'did you learn something new during your visit' and 'did you learn more than you expected' for males and females.*
3.12: *Weighted average scores for the questions 'did you learn something new during your visit' and 'did you learn more than you expected' for the different age categories. For the age category of 21-30, n=5 learned more than expected and n=6 learned something new; for the age category of 31-40, n=3 learned more than expected and n=3 learned something new; for the age category of 41-50, n=6 learned more than expected and n=7 learned something new; for the age category of 51-60, n=16 learned more than expected and n=16 learned something new; for the age category of 60+, n=24 learned more than expected and n=22 learned something new.*
3.13: *Weighted average scores for the impact of DOMunder on respondents' personal traits (n=57).*
3.14: *Top: Scores for the statement 'DOMunder contributed to your ability to better understand the value of archaeology' (n=57). Bottom: Scores for the statement 'You feel more confident talking about archaeology after your visit to DOMunder' (n=57).*
3.15: *Results for the question "did you meet new people during your visit to DOMunder?" (n=57). In light-grey, the number of people who still have contact with those they met.*
3.16: *Weighted averages of the personal traits linked to the concepts of community empowerment and self-determination (n=56).*
3.17: *Relation between the absolute scores for people's ability to access information and whether DOMunder contributed to people's ability to better understand the value of archaeology.*
3.18: *Absolute scores for the impact of DOMunder on people's views on politics, religion, and social aspects of life (n=53).*
3.19: *Average weighted scores for the sociocultural impact of seeing an actual skeleton during the DOMunder experience (n=53).*
3.20: *Top: Absolute scores for the statement 'My visit to DOMunder contributed to my energy level' (n=52). Bottom: Absolute scores for the statement 'After my visit to DOMunder, I felt a sense of accomplishment' (n=52).*
3.21: *Age categories for the resident survey (n=87).*
3.22: *Scores for the question 'do you feel connected to your neighborhood?' (n=92).*
3.23: *Age categories versus weighted averages of connectedness to the neighborhood (n=87, with n=3 for 10-20 years old, n=40 for 21-40 years old, n=27 for 41-60 years old, and n=17 for 60+).*
3.24: *Absolute scores for respondents' opinion on living close to DOMunder (n=92).*
3.25: *Cross comparison between the two previous issues discussed, connectedness to neighborhood and whether people like living close to DOMunder.*

3.26: *Weighted average scores for liking to live close to DOMunder for each age category (n=87, with n=3 for 10-20 year old, n=40 for 21-40 year old, n=27 for 41-60 year old, and n=17 for 60+).*
3.27: *Relative scores for residents' perception of tourist increase due to DOMunder and if they feel the need to escape those tourists sometimes (n=92).*
3.28: *Comparison between resident's interest region average scores and visitors' average scores on connectedness.*
3.29: *Absolute scores for the social relation categories with which people want to visit DOMunder (n=86).*
3.30: *Reasons for having visited, or wanting to visit, DOMunder (n=87). Numbers are absolute.*
3.31: *Comparison between the absolute results for the reasons for visiting and whether visiting DOMunder has a social value (n=92).*
3.32: *Weighted averages of respondents' association with the Domplein Square (n=92).*
3.33: *Relative comparison between the Domplein Square and DOMunder social roles (n=91 for Domplein Square social role, n=88 for DOMunder social role).*
3.34: *Left: Gender balance (n=33). Right: Age categories (n=33).*
3.35: *Left: Time involved as volunteer at DOMunder (n=33). Right: Time investment per month (n=33).*
3.36: *Relation between DOMunder and current or previous job (n=33).*
3.37: *Weighted average scores of respondents' reasons for doing volunteer work (n=31).*
3.38: *Weighted average scores of respondents' reasons for doing volunteer work versus their age categories (n=31).*
3.39: *Weighted average scores on skill development (n=32).*
3.40: *Weighted average scores of impact on personal attributes (n=32).*
3.41: *Weighted average scores for personal traits for volunteers volunteers (blue) and visitors (red) (n=32 for volunteers, n=57 for visitors). Difference in grey.*
3.42: *Weighted averages of volunteers' personal attributes relative to the amount of time working as volunteer at DOMunder (n=32).*
3.43: *Weighted averages for personal attributes versus their age categories (n=31).*
3.44: *Volunteer results for meeting other people (n=32).*
4.1: *Left: Age categories for respondents. Right: Gender balance for respondents.*
4.2: *Art provenance (n=86).*
4.3: *Absolute scores given for impact in pride for local, national and international archaeology (n=233).*
4.4: *Time spent on the creation of artworks. Number of respondents is absolute (n=93).*
4.5: Comparison of t*ime spent on creation of artworks versus 'professional' and 'non-professional' participants. Numbers are absolute (n=93).*
4.6: *Responses to the statement "Participating in the contest increased my knowledge of archaeology" (n=87).*
4.7: Comparison of *increase in knowledge by age category. Numbers are absolute (n=86).*
4.8: Relative comparison of t*ime spent versus knowledge increase (n=84).*
4.9: *Weighted averages for personal attributes (n=82 for Understanding of the Past, n=79 for Views on religion, n=79 for Views on life, n=78 for Self-acceptance, n=80 for Sense of involvement, n=80 for Self-confidence, n=86 for Creativity, n=80 for Self-Consciousness, and n=84 for Motivation).*

4.10: *Impact on connectedness towards Local, National, and International archaeology, the neighborhood, and the people living in the area my artwork (n=79 for Local archaeology, n=76 for National archaeology, n=81 for International archaeology, n=76 for The neighborhood of my artwork, and n=76 for The people living in the area of my artwork).*
4.11: *Relative connectedness per age category (n=68 for Local archaeology, n=67 for National archaeology, and n=77 for International archaeology).*
4.12: *Reasons for joining the You(R) Archaeology contest. Numbers are absolute (n=85).*
4.13: *Submission categories comparing professional and non-professional participants. Numbers are absolute (n=79).*
4.14: *Weighted averages of personal emotions versus impact in knowledge (n=82 for Happy, n=80 for Useful, n=79 for Relaxed, n=80 for Capable, n=79 for Inspired, n=77 for Energetic, n=77 for Healthy, n=82 for Positive, n=77 for Anxious, n=77 for Angry, n=77 for Depressed, n=77 for Insecure, and n=78 for Judged).*
4.15: *Satisfaction after taking part in the contest. Numbers are absolute (n=87).*
4.16: *Satisfaction per age category. Numbers are absolute (n=86).*
4.17: *Satisfaction compared to impact on learning. Numbers are absolute (n=86).*
5.1: *Map showing the locations of the seven 'Invisible Monuments'.* Google, Google Maps.
5.2: *Distribution of age groups (n=196).*
5.3: *Highest education level. Absolute numbers (n=196).*
5.4: *Results for the question "Were you familiar with the monument presented here?" (n=196).*
5.5: *Relative scores for connectedness towards local, national and international archaeology (n=196).*
5.6: *Relative scores for age categories versus connectedness (n=???).*
5.7: *Tourists versus resident distribution (n=196).*
5.8: *Figure showing absolute numbers for increased pride in archaeology (n=196).*
5.9: *Relative increase in pride compared with age categories (n=196).*
5.10: *Time people spent on the activity. Absolute numbers (n=196).*
5.11: *Absolute scores for knowledge increase (n=196).*
5.12: *Relative scores for knowledge increase versus education level (n=190).*
5.13: *Relative scores for knowledge increase versus time spent.*
5.14: *Absolute scores for the statements "Did you learn something new during your visit"? and "Did you learn more than you expected to learn?" (n=196).*
5.15: *Absolute scores for the statement "This activity contributed to your ability to better understand the value of archaeology" (n=196).*
5.16: *Absolute scores for the statement "You feel more confident talking about archaeology after this activity" (n=196).*
5.17: *Reasons for joining. Absolute numbers (n=153).*
5.18: *Absolute scores for the statement "After completing the activity, I still want to know more about archaeology" (n=196).*
5.19: *Relative comparison between age categories and the eagerness to learn more (n=194).*
5.20: *Weighted averages of personal emotions versus scores for impact in knowledge (n=182 for Relaxed, n=179 for Safe, n=181 for Happy, n=184 for Useful, n=180 for Capable, n=182 for Inspired, n=183 for Energetic, n=172 for Healthy, n=178*

for Positive, n=179 for Anxious, n=181 for Angry, n=180 for Depressed, n=179 for Insecure, and n=177 for Judged).

5.21: *Participants' satisfaction (n=196).*

6.1: *Comparison between age categories for the three case studies (n=87 for You(R) Archaeology, n=196 for Invisible Monuments, n=62 for DOMunder visitors, and n=32 for DOMunder volunteers).*

6.2: *Comparison between respondents' genders for the three case studies (n=87 for You(R) Archaeology, n=196 for Invisible Monuments, n=63 for DOMunder, and n=32 for DOMunder volunteers).*

6.3: *Comparison between increase in pride for the Invisible Monuments (n=193 for Local archaeology, n=190 for National archaeology, and n=190 for International archaeology) and You(R) Archaeology (n=66 for Local archaeology, n=70 for National archaeology, and n=80 for International Archaeology) activities.*

6.4: *Comparison between the Invisible Monuments (n=196) and You(R) Archaeology (n=87)activities for the scores on knowledge increase.*

6.5: *Comparison between the relative scores for the questions "did you learn something new during your visit?" and "did you learn more than you expected to learn" for the Invisible Monuments (n=??) and DOMunder (n=??) case studies.*

6.6: *Time investment for the You(R) Archaeology (n=93) and the Invisible Monuments (n=196) activities.*

6.7: *Comparison between the weighted averages of personal attributes for four different stakeholders out of the three case studies. DOMunder visitors (n=57), DOMunder volunteers (n=32), You(R) Archaeology participants (n=83 for Motivation, n=79 for Self-consciousness, n=85 for Creativity, n=79 for Self-confidence, n=79 for Sense of involvement, n=77 for Self-acceptance, n=78 for Views on life, n=78 for Views on religion, and n=81 for Understanding of the past), and Invisible Monuments participants (n=196).*

6.8: *Top: Relative scores for the statement "This activity contributed to your ability to better understand the value of archaeology" for the visitors of DOMunder and the participants of the Invisible Monuments activity. Bottom: Relative scores for the statement "You feel more confident talking about archaeology after this activity" for the visitors of DOMunder and the participants of the Invisible Monuments activity.*

6.9: *Comparing skill development between two out of three case studies for three different audiences (DOMunder visitors n=57, volunteers n=32, You(R) Archaeology participants n=86).*

6.10: *Showing the percentages of activity participants who have met new people thanks to their participation (DOMunder visitors n=57, DOMunder volunteers n=32, You(R) Archaeology participants n=70 and Invisible Monuments visitors n=196).*

6.11: *Comparison of target audiences' reasons for participating (DOMunder volunteers n=31, residents n=87, You(R) Archaeology n=85, and Invisible Monuments n=153).*

6.12: *Participant's satisfaction after participating in the You(R) Archaeology and Invisible Monument activities.*

6.13: *Culture Based Development – 4th Pillar of Sustainable Development.*
After Tubadji 2010, 198.

List of tables

2.1: *Typology of heritage values.*
Mason 2002, 10.

2.2: *Socio-cultural headings.*
After Matarasso 1997.

3.1: *Social indicators for the visitor questionnaire.*
After Matarasso (1997) and the North East Regional Museums Hub Tool.

3.2: *Resident and Volunteer research goals with related topics and possible survey questions.*

3.3: *Weighted average scores for personal attributes per age category. Green shows the highest scores, red the lowest.*

3.4: *Weighted average scores for personal emotions per age category. Green shows the highest scores, red the lowest (reversed for the negative emotions) (n=50).*

4.1: *Social indicators for the You(R) Archaeology survey.*
After Matarasso (1997) and the North East Regional Museums Hub Tool.

4.2: *Country of residence of the respondents (n=88) compared to the total pool contacted for the questionnaire (n=328).*

4.3: *Art provenance versus impact in pride, in percentage of received answers (n=88).*

4.4: *Weighted averages for personal attributes compared with age categories. (n=83 for Motivation, n=79 for Self-consciousness, n=85 for Creativity, n=79 for Self-confidence, n=79 for Sense of involvement, n=77 for Self-acceptance, n=78 for Views on life, n=78 for Views on religion, and n=81 for Understanding of the past).*

4.5: *Impact on skill development comparing 'professional' and 'non-professional', age categories, and gender. Numbers are absolute.*

4.6: *Weighted averages for positive and negative emotions. Green shows the highest scores, red the lowest (reversed for the negative emotions) (n=82 for Happy, n=80 for Useful, n=79 for Relaxed, n=80 for Capable, n=79 for Inspired, n=77 for Energetic, n=77 for Healthy, n=82 for Positive, n=77 for Anxious, n=77 for Angry, n=77 for Depressed, n=77 for Insecure, and n=78 for Judged).*

5.1: *Sociocultural indicators for the You(R) Archaeology contest.*
After Matarasso (1997) and the North East Regional Museums Hub Tool.

5.2: *Weighted average scores for personal attributes versus age category (n=196).*

5.3: *Weighted average scores for personal emotions per age category (n=188 for Relaxed, n=183 for Safe, n=186 for Happy, n=189 for Useful, n=185 for Capable, n=187 for Inspired, n=188 for Energetic, n=177 for Healthy, n=183 for Positive, n=184 for Anxious, n=186 for Angry, n=185 for Depressed, n=184 for Insecure, and n=182 for Judged).*
6.1: *Comparison between the three case studies' activity goals and (target) audiences.*
6.2: Comparison in connectedness with Local-, National-, and International archaeology for the You(R) Archaeology and Invisible Monument case studies.
6.3: Cross-comparison between age groups and scores for knowledge increase for the Invisible Monuments (IM) activity (n=196) and the You(R) Archaeology (YA) activity (n=87).
6.4: Weighted average scores for personal emotions per case study group. Highest scores are highlighted in green, lowest scores in red (n=32 for DOMunder volunteers, n=50 for DOMunder visitors, n=82 for You(R) Archaeology, and n=188 for Invisible Monuments).
6.5: A step-by-step guideline to steer impact creation.

Appendices

Appendix A1a: The DOMunder visitor survey (English)

Demographics

1. When did you last visit DOMunder? [dd/mm/yyyy]
2. What is your age category?[10-15/16-20/21-30/31-40/41-50/50-60/60+]
3. Are you male or female?[male/female]
4. Do you live in the Netherlands? If so, in which town/city?[yes/no/specify]

Local image and identity

5. After your visit to DOMunder, do you feel more connected to Utrecht and/or the Netherlands? Please rate:

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Utrecht	( )	( )	( )	( )	( )
The Netherlands	( )	( )	( )	( )	( )

6. After your visit to DOMunder, do you feel more connected to the following time periods? Please rate:

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
The Roman history	( )	( )	( )	( )	( )
Willibrord and the spread of Christianity	( )	( )	( )	( )	( )
The time of the bishop of Adelbold and the foundation of the Dom church?	( )	( )	( )	( )	( )
The Gothic era	( )	( )	( )	( )	( )
The destruction of the church – 1674 AD	( )	( )	( )	( )	( )
The present day situation	( )	( )	( )	( )	( )

7. The Dom Square once was a forum for social gatherings and citizen participation. Do you feel that:

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
the Domplein Square serves this role today?	( )	( )	( )	( )	( )
The Dom Square should be recognized as Utrecht's most significant forum for social gatherings and citizen participation, because of its historical and cultural background	( )	( )	( )	( )	( )

Personal Development

8. Did you

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Learn something new during your visit?	( )	( )	( )	( )	( )
Learn more then you expected to?	( )	( )	( )	( )	( )

9. Did you gain a new skill? If so, what skill?[yes/no/specify …]
10. Did you contribute to a discussion during the tour?[yes/no]
11. Please rate how much your visit to DOMunder contributed to to the following:

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Motivation	( )	( )	( )	( )	( )
Self-awareness	( )	( )	( )	( )	( )
Self-esteem	( )	( )	( )	( )	( )
Creativity	( )	( )	( )	( )	( )

12. Do you foresee yourself doing volunteer work or having a job in the heritage sector?[yes/no/perhaps]
13. You feel more confident talking about archaeology after your visit to DOMunder

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

14. DOMunder contributed to your ability to better understand the value of archaeology

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

Social Cohesion

15. Did you meet new people during your visit to DOMunder? [yes/no] If yes go to question C.2. if not go to question C.3.

16. Do you still have contact with them? [yes/no]

17. I felt connected to the group during my visit

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

Community Empowerment and self-determination

18. Please rate how much your visit to DOMunder contributed to you(r)

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
having the confidence to express yourself	( )	( )	( )	( )	( )
self-acceptance	( )	( )	( )	( )	( )
autonomy, agency, having a say feeling able to make choices and decisions	( )	( )	( )	( )	( )
feeling able to take part in and influence decisions that affect you	( )	( )	( )	( )	( )
feeling able to access the information you need to make up your own mind about things	( )	( )	( )	( )	( )
feeling a sense of authenticity about your thoughts and behavior	( )	( )	( )	( )	( )
feeling in control of your life	( )	( )	( )	( )	( )
desire to change; belief that change is possible	( )	( )	( )	( )	( )
commitment, willingness to make changes	( )	( )	( )	( )	( )

19. Please rate how much your visit to DOMunder influenced your views on politics, religion or social life

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Politics	( )	( )	( )	( )	( )
Religion	( )	( )	( )	( )	( )
Social Life	( )	( )	( )	( )	( )

20. After your visit to DOMunder, do you feel that you want to know more about archaeology? [yes/no] [If yes go to question D.6, if no go to question D.7.]

21. How you do you think you'd like to get more informed (Multiple answers possible)?[11]
( ) Through programmes, reports on TV, radio media
( ) Through films at the cinema, on TV
( ) Through articles in the national press
( ) Through articles in international press
( ) Through articles in the regional press
( ) Through archaeology websites
( ) Through social networks
( ) Through publications (books/magazines) about archaeology
( ) Through special days dedicated to the cultural heritage and archaeology
( ) Through conferences
( ) Through your children or yourself during your education, at school or university
( ) Through visits to archaeological sites or exhibitions in [country]
( ) Through visits to sites or exhibitions during trips abroad
( ) Through friends and family…

Imagination and vision

22. A part of DOMunder's goal is to position itself as a real visitor experience. Would you describe your visit to DOMunder as an 'experience'? please specify what you mean by that.[yes/no/specify …]

23. Please rate how the various parts of the tour contributed to the creation of your experience

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Introduction by the host	( )	( )	( )	( )	( )
Small tour at DOMunder I	( )	( )	( )	( )	( )
The movie in DOMunder I	( )	( )	( )	( )	( )
Crossing the square and the descent into DOMunder II	( )	( )	( )	( )	( )
The movie in DOMunder II	( )	( )	( )	( )	( )
The tour at DOMunder II	( )	( )	( )	( )	( )
The storm at the end of DOMunder II	( )	( )	( )	( )	( )

24. The search for sensors stimulated me to know more about the place

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

25. Did you know beforehand that you'd enter a burial site? [yes/no]

26. Please rate how much seeing an actual human skeleton had an impact on

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
My view of life	( )	( )	( )	( )	( )
The way I would rate the tour of DOMunder	( )	( )	( )	( )	( )
My views on religion	( )	( )	( )	( )	( )
My understanding of the past	( )	( )	( )	( )	( )
The way I talk about death with my children, family or friends	( )	( )	( )	( )	( )
My views of DOMunder as being authentic	( )	( )	( )	( )	( )
My view on ethics	( )	( )	( )	( )	( )

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Health and well-being

27. I feel that I actively participated during the tour

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

28. Please rate how much your visit to DOMunder contributed to you feeling:

	1 – Not at all	2 – Slightly	3 – Somewhat	4 – Moderately	5 – Extremely
Capable	( )	( )	( )	( )	( )
Useful	( )	( )	( )	( )	( )
Happy	( )	( )	( )	( )	( )
Relaxed	( )	( )	( )	( )	( )
Positive	( )	( )	( )	( )	( )
Content	( )	( )	( )	( )	( )
Safe	( )	( )	( )	( )	( )
Stressful	( )	( )	( )	( )	( )
Anxious	( )	( )	( )	( )	( )
Healthy	( )	( )	( )	( )	( )
Inspired	( )	( )	( )	( )	( )

29. My visit to DOMunder contributed to my energy level

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

30. Visiting DOMunder gave me the chance to do more physical activity than I would have otherwise undertaken

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

31. During my visit to DOMunder, I was able to

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Think clearly and concentrate	( )	( )	( )	( )	( )
Remember things	( )	( )	( )	( )	( )

32. After my visit to DOMunder, I felt a sense of accomplishment

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
( )	( )	( )	( )	( )

33. Do you have any comments on this survey?

Appendix A1b: The DOMunder visitor survey (Dutch)

Demografie

1. Wanneer heb je DOMunder voor het laatst bezocht?[dd/mm/jjjj]
2. Wat is je leeftijdscategorie?[10-20/21-30/31-40/41-50/51-60/60 jaar en ouder]
3. Ben je een man of een vrouw?[Man/Vrouw]
4. Woon je in Nederland? Zo ja, in welke stad of dorp?[Ja/Nee/Specificeer]

Perceptie en Identiteit

5. Voel jij je, na je bezoek aan DOMunder, meer verbonden met de volgende aspecten? Geef aan:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Utrecht	( )	( )	( )	( )	( )
Nederland	( )	( )	( )	( )	( )

6. Voel jij je, na je bezoek aan DOMunder, meer verbonden met de volgende tijden? Geef aan:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
De Romeinse geschiedenis	( )	( )	( )	( )	( )
Willibrord en de verspreiding van het Christendom	( )	( )	( )	( )	( )
De tijd van de bisschop van Adelbold en de stichting van de Domkerk	( )	( )	( )	( )	( )
De Gotische tijd	( )	( )	( )	( )	( )
De vernietiging van de kerk door de storm – 1674 AD	( )	( )	( )	( )	( )
De tegenwoordige situatie	( )	( )	( )	( )	( )

7. Het Domplein werd vroeger gebruikt als een forum en ontmoetingsplaats voor de inwoners van Utrecht. Heb jij het *idee* dat:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Het Domplein deze rol nog steeds vervult?	( )	( )	( )	( )	( )
Het Domplein zou moeten worden erkent als Utrechts belangrijkste forum en ontmoetingsplaats voor sociale evenementen, omdat het zo'n rijke historische en culturele geschiedenis heeft	( )	( )	( )	( )	( )

Persoonlijke ontwikkeling

8. Heb je:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Iets nieuws geleerd tijdens je bezoek?	( )	( )	( )	( )	( )
Meer geleerd dan je had verwacht?	( )	( )	( )	( )	( )

9. Heb je een nieuwe vaardigheid ontwikkeld? Zo ja, welke? [ja/nee/leg uit]
10. Heb je meegedaan met een discussie? [ja/nee]
11. Geef aan hoeveel je bezoek aan DOMunder heeft bijgedragen aan jouw:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Motivatie	( )	( )	( )	( )	( )
Zelfbewustzijn	( )	( )	( )	( )	( )
Zelfvertrouwen	( )	( )	( )	( )	( )
Creativiteit	( )	( )	( )	( )	( )

12. Zie jij jezelf vrijwilligerswerk doen of een baan hebben in de erfgoedsector? [ja/nee/misschien]
13. Na mijn bezoek aan DOMunder voel ik mijzelf zekerder wanneer ik praat over archeologie

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

14. DOMunder draagt bij aan mijn vermogen om de waarde van archeologie beter te beoordelen

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

Sociale Cohesie

15. Heb je nieuwe mensen leren kennen tijdens je bezoek aan DOMunder?[ja/nee] [ja -> vr16, nee vr17]

	Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
Nieuwe mensen	( )	( )	( )	( )	( )
Vrienden	( )	( )	( )	( )	( )

16. Heb je nog steeds contact met deze mensen? [ja/nee]
17. Ik voelde mij verbonden met de groep

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

Gemeenschapsbijdrage en zelfbeschikking

18. Geef aan hoeveel je bezoek aan DOMunder heeft bijgedragen aan

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Je zelfvertrouwen om jouw mening te delen	( )	( )	( )	( )	( )
zelfacceptatie	( )	( )	( )	( )	( )
Je autonomiteit, het gevoel dat je je eigen beslissingen maakt.	( )	( )	( )	( )	( )
Het gevoel dat je invloed uitoefent op dingen die jou aangaan	( )	( )	( )	( )	( )
Het gevoel dat je de beschikking hebt over de juiste informatie, om daar vervolgens iets mee te doen	( )	( )	( )	( )	( )
Je controle over je gevoel en zelfbewustzijn	( )	( )	( )	( )	( )
Het gevoel dat je controle hebt over je leven	( )	( )	( )	( )	( )
Het verlangen hebben om te veranderen, of weten dat verandering mogelijk is.	( )	( )	( )	( )	( )
Bereidheid tot veranderen	( )	( )	( )	( )	( )
gevoel van betrokkenheid	( )	( )	( )	( )	( )

19. Geef aan hoeveel je bezoek aan DOMunder jouw kijk op politiek, religie en het sociale leven heeft beïnvloed

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Politiek	( )	( )	( )	( )	( )
Religie	( )	( )	( )	( )	( )
Sociale leven	( )	( )	( )	( )	( )

20. Heb je na je bezoek aan DOMunder het gevoel dat je meer wilt weten over archeologie? [ja/nee] [ja: D.6., nee D.7.]
21. Hoe zou je meer informatie willen ontvangen?[1] [2]
( ) Via documentaires en nieuwsberichten op radio en TV
( ) Via films in de bioscoop en op TV
( ) Via artikelen in de nationale pers
( ) Via artikelen in de regionale pers
( ) Via lokale verenigingen en onderwijsinstellingen
( ) Via archeologische websites
( ) Via sociale netwerken
( ) Via publicaties (boeken/tijdschriften) over archeologie
( ) Via speciale dagen gewijd aan cultureel erfgoed en archeologie
( ) Via conferenties
( ) Via uw kinderen of uzelf tijdens uw educatie, op school of universiteit.
( ) Via bezoeken aan archeologische locaties of tentoonstellingen in Nederland
( ) Via bezoeken aan locaties aan en tentoonstellingen gedurende bezoeken aan in het buitenland
( ) Via familie en vrienden…

Verbeelding en visie

22. Een doel van DOMunder is om zich te presenteren als een echte ervaring. Zou je jouw bezoek aan DOMunder omschrijven als een 'ervaring'? Leg uit waarom wel of niet[ja/nee/leg uit …] [ja: E.2., nee: E.3.]
23. Geef aan hoeveel elk onderdeel van de tour bijdroeg aan jouw totale beleving van DOMunder

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Introductie door de rondleider	( )	( )	( )	( )	( )
Korte tour in DOMunder 1	( )	( )	( )	( )	( )
De film in DOMunder 1	( )	( )	( )	( )	( )
Oversteken van het plein, afdalen in DOMunder II	( )	( )	( )	( )	( )
De film in DOMunder II	( )	( )	( )	( )	( )
De tour (de zoektocht) in DOMunder II	( )	( )	( )	( )	( )
De storm aan het einde van de tour in DOMunder II	( )	( )	( )	( )	( )

24. Het zoeken naar de sensoren stimuleerde me om meer van de ruimte te onderzoeken

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

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25. Wist je dat je een begraafplaats zou betreden?[ja/nee]
26. Geef aan hoeveel het zien van een echt menselijk skelet een impact had op jouw:

	Helemaal niet	Nauwelijks	In redelijke mate	In hoge mate	In zeer hoge mate
Kijk op het leven	( )	( )	( )	( )	( )
Uiteindelijke cijfer wat ik zou geven aan DOMunder	( )	( )	( )	( )	( )
Mijn kijk op religie	( )	( )	( )	( )	( )
Mijn begrip van het verleden	( )	( )	( )	( )	( )
De manier waarop ik over de dood praat met mijn kinderen, familieleden of vrienden	( )	( )	( )	( )	( )
Het authentici-tijdsgevoel wat DOMunder bij mij opwekt	( )	( )	( )	( )	( )
Mijn kijk op ethiek	( )	( )	( )	( )	( )

F. Gezondheid en welbevinden

27. Ik heb het gevoel dat ik actief heb meegedaan tijdens de tour

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

28. Geef aan hoeveel je bezoek aan DOMunder heeft bijgedragen aan hoe jij je voelt in de volgende aspecten:

	Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
Bekwaam	( )	( )	( )	( )	( )
Nuttig	( )	( )	( )	( )	( )
Vrolijk	( )	( )	( )	( )	( )
Relaxed	( )	( )	( )	( )	( )
Positief	( )	( )	( )	( )	( )
Content	( )	( )	( )	( )	( )
Veilig	( )	( )	( )	( )	( )
Gestressed	( )	( )	( )	( )	( )
Angstig	( )	( )	( )	( )	( )
Gezond	( )	( )	( )	( )	( )
Geïnspireerd	( )	( )	( )	( )	( )

29. DOMunder droeg positief bij aan mijn energielevel

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

30. Het bezoeken van DOMunder gaf me een kans om iets fysieks te doen, anders dan wat ik normaal had ondernomen

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

31. Tijdens mijn bezoek aan DOMunder was het voor mij mogelijk om

	Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
Mij te concentreren en helder te denken	( )	( )	( )	( )	( )
Dingen te onthouden	( )	( )	( )	( )	( )

32. Na mijn bezoek aan DOMunder voelde ik mijzelf voldaan

Volledig mee oneens	Oneens	Neutraal	Eens	Volledig mee eens
( )	( )	( )	( )	( )

Commentaar

33. Heb je nog commentaar op deze enquete?

Appendix A2a: The DOMunder resident survey (English)

Buurtonderzoek Utrecht | Domkwartier

Address:Date:

_____

Age category:10-20/ 21-40 / 41-60 / 61+

Rate your interest for Dutch achaeology in general, 1 – 5
1 / 2 / 3 / 4 / 5

Rate your interest in the archaeology of Utrecht specifically, 1 – 5
1 / 2 / 3 / 4 / 5

Have you heard of DOMunder?YES / NO

Have you visited DOMunder?YES / NOE-mail address: _____
(did you receive the survey??)

If not, are you planning for a visit? YES / NO

With whom did you visit, or would you like to visit DOMunder?
ALONE / FAMILY / FRIENDS / OTHER__ _____

Why did you visit, or would like to visit, DOMunder?

_____

Did your visit, or would your visit to DOMunder, be worth something for you socially? If yes, please explain

_____

Imagine you get a family visit and you would like to spend time together in Utrecht, would you then visit DOMunder or something else?

_____

What's your opinion on having such an archaeological attraction right next to your house?
DON'T LIKE IT AT ALL / DON'T LIKE IT / NEUTRAL / I LIKE IT / I LIKE IT VERY MUCH

Does DOMunder make you want to stay in Utrecht even more?
YES / NO / DON'T KNOW

Do you think that there are more visitors in Utrecht due to DOMunder?
YES / NO / DON'T KNOW

Do you have the feeling that you would like to escape these tourists and the bustle sometimes?
YES / NO / DON'T KNOW

Do you feel connected to your neighborhood?
NOT AT ALL / SLIGHTLY / SOMEWHAT / MODERATELY / EXTREMELY

DOMplein foundation is planning to revitalize the Dom Square into the central cultural and social 'oldspot' of Utrecht.
What do you think of this idea?
DON'T LIKE IT AT ALL / DON'T LIKE IT / NEUTRAL / I LIKE IT / I LIKE IT VERY MUCH

Do you think that this renewed attention for the square could be beneficial for the neighborhood?
YES / NO / DON'T KNOW

Why do you think that?

_____

Do you think that the Dom Square plays an important social role for the citizens of Utrecht?
YES / NO / DON'T KNOW

Place the next words in the correct order when you think of the Dom Square
EVENTS / FOOD AND DRINK / ARCHAEOLOGY / MEETING PLACE / CHURCH SERVICES

_____

NOTES

_____

Appendix A2b: The DOMunder resident survey (Dutch)

Adres:Datum:

Leeftijdscategorie:10-20/ 21-40 / 41-60 / 61+

Geeft u een cijfer aan uw interesse in de Nederlandse archeologie, 1 – 5
1 / 2 / 3 / 4 / 5

Geeft u een cijfer aan uw interesse in de archeologie van Utrecht, 1 – 5
1 / 2 / 3 / 4 / 5

Heeft u van DOMunder gehoord? JA / NEE

Heeft u DOMunder bezocht?JA / NEE-mail adres: _____
(Heeft u de survey ontvangen?)

Zo niet, bent u van plan om deze nog te bezoeken? JA / NEE

Met wie heeft u DOMunder bezocht, of zou u DOMunder willen bezoeken?
ALLEEN / GEZIN / VRIENDEN / ANDERS _____

Waarom heeft u DOMunder bezocht, of wilt u DOMunder gaan bezoeken?

Heeft uw bezoek, of zou uw bezoek aan DOMunder ook een sociale waarde kunnen hebben denkt u? Zo ja, welke?

Stel u krijgt bijvoorbeeld familiebezoek en wilt iets leuks gaan doen in uw vrije tijd in Utrecht, zou u dan voor DOMunder of iets anders kiezen?

Wat vind u van zo'n archeologische attractie dicht bij uw huis?
HELEMAAL NIET LEUK / NIET LEUK / GEMIDDELD / LEUK / HEEL LEUK

Zorgt DOMunder er voor dat u nu nog meer in Utrecht wilt blijven wonen?
JA / NEE / WEET NIET

Heeft u het *idee* dat er hierdoor meer bezoekers richting het Domplein zijn gekomen?
JA / NEE / WEET NIET

Heeft u het *idee* dat u soms de de toeristen en bijkomende drukte moet ontvluchten?
JA / NEE / WEET NIET

Voelt u zich betrokken bij de wijk?
HELEMAAL NIET / NAUWELIJKS / IN REDELIJKE MATE / IN HOGE MATE / IN ZEER HOGE MATE

Stichting Domplein zet zich in om van het Domplein hét culturele verzamelpunt van Utrecht te maken, een zogenaamde 'cultural oldspot'. Wat vind u hiervan?
HELEMAAL NIET LEUK / NIET LEUK / GEMIDDELD / LEUK / HEEL LEUK

Denkt u dat deze hernieuwde aandacht aan het Domplein goed zal zijn voor de buurt?
JA / NEE / WEET NIET

Waarom denkt u dat?

Denkt u dat het Domplein een rol speelt in het sociale leven van de bewoners van Utrecht?
JA / NEE / MISSCHIEN

Zet de volgende woorden in de voor u juiste volgorde wanneer u denkt aan het Domplein
EVENEMENTEN / ETEN EN DRINKEN / ARCHEOLOGIE / ONTMOETINGSPLAATS / KERKDIENSTEN

Opmerkingen

Appendix A3: The DOMunder volunteer survey (Dutch)

A. Basisgegevens

1. Ben je man of vrouw[man/vrouw]
2. Wat is je leeftijd?[16-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51+]

3. Hoe lang ben je al betrokken bij DOMunder als vrijwilliger?
Minder dan een maand
Een tot drie maanden
Drie tot zes maanden
Zes maanden tot een jaar
Meer dan een jaar

4. Hoeveel tijd spendeer je per maand aan jouw vrijwilligerswerk bij DOMunder?
Minder dan 10 uur per maand
11 tot 15 uur per maand
16 tot 20 uur per maand
21 tot 25 uur per maand
26 tot 30 uur per maand
Meer dan 30 uur per maand

5. Heeft je huidige vrijwilligerswerk bij DOMunder een relatie met je huidige of vorige betaalde baan?
Niet van toepassing: heb geen ander werk en/of nog geen ander werk gehad
Het heeft geen echte relatie met mijn vorige of huidige werk
Het is vergelijkbaar: de setting is hetzelfde (historisch, archeologisch of werk in een museum), maar het werk wat ik nu doe is anders
Het is vergelijkbaar: de setting is anders, maar het werk is hetzelfde
Het is erg vergelijkbaar: zowel de setting als het werk is hetzelfde

6. Welke situatie beschrijft jouw huidige werksituatie het beste (meerdere antwoorden mogelijk)?
Ik heb momenteel betaald werk (full-time, part-time, tijdelijk, permanent, eigen bedrijf etc)
Ik heb momenteel geen betaald werk
Ik studeer
Ik ben met pensioen
Anders

7. Wat is je hoogst genoten opleiding?
geen / lager- of basisonderwijs
VMBO / MAVO / LBO
MBO (MTS,MEAO)
HAVO/VWO (HBS,MMS)
HBO/WO(HTS,HEAO)

B. Vaardigheden en andere ontwikkelingen

8. Geef hieronder aan hoeveel jouw vrijwilligerswerk bij DOMunder heeft bijgedragen aan het ontwikkelen van specifieke vaardigheden

	1 – Helemaal niet	2 – lichtelijk	3 – Gemiddeld	4 – Veel	5 – Erg veel
Informatiemanagement (onderzoek, archiveren, overschrijven)	( )	( )	( )	( )	( )
Communicatievaardigheden (spreken, schrijven, presenteren)	( )	( )	( )	( )	( )
Andere interpersoonlijke vaardigheden (leiderschap, teamwork, meer zekerheid in bepaalde sociale situaties)	( )	( )	( )	( )	( )
Technische vaardigheden (computers en ICT, archeologie als beroep)	( )	( )	( )	( )	( )
Bedrijfs- en management vaardigheden	( )	( )	( )	( )	( )
Probleemoplossend vermogen en het jezelf kunnen aanpassen aan de omstandigheden	( )	( )	( )	( )	( )
Time management	( )	( )	( )	( )	( )

9. Geef hieronder aan hoeveel jouw vrijwilligerswerk bij DOMunder heeft bijgedragen aan jouw ontwikkeling van persoonlijke eigenschappen

	1 – Helemaal niet	2 – lichtelijk	3 – Gemiddeld	4 – Veel	5 – Erg veel
Motivatie	( )	( )	( )	( )	( )
Zelfbewustzijn	( )	( )	( )	( )	( )
Blijdschap	( )	( )	( )	( )	( )
Zelfvertrouwen	( )	( )	( )	( )	( )
Tevredenheid	( )	( )	( )	( )	( )
Creativiteit	( )	( )	( )	( )	( )

C. Jij en de gemeenschap

10. Door jouw werkzaamheden spreek je veel mensen. Heb je ook nieuwe mensen leren kennen (waarmee je ook contact hebt naast je vrijwilligerswerk)? Geef aan hoeveel nieuwe mensen je hebt leren kennen en wie deze mensen zijn:

	Niemand	0-5	6-10	11-20	Meer dan 20
Andere vrijwilligers	( )	( )	( )	( )	( )
Bezoekers van de rondleiding	( )	( )	( )	( )	( )
Anderen	( )	( )	( )	( )	( )

11. Hoevaak spreek je deze mensen tijdens de week (buiten werktijd)?

	Niet	0-1 uur per week	2-5 uur per week	5-10 uur per week	Meer dan 10 uur per week
Andere vrijwilligers	( )	( )	( )	( )	( )
Bezoekers van de rondleiding	( )	( )	( )	( )	( )
Anderen	( )	( )	( )	( )	( )

12. Spreek je wel eens met andere mensen over je vrijwilligerswerk? [ja/nee]

D. Toekomstperspectief

13. Geef aan hoe belangrijk de onderstaande redenen voor jou zijn (meerdere antwoorden mogelijk)

	1 – Helemaal niet belangrijk	2 – lichtelijk belangrijk	3 – Gemiddeld belangrijk	4 – Belangrijk	5 – Erg belangrijk
Ik doe vrijwilligerswerk bij DOMunder omdat ik geïnteresseerd ben in de geschiedenis van Utrecht	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik geïnteresseerd ben in de Nederlandse archeologie	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik graag werk met mensen	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik graag in een team werk	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik mijn vaardigheden wil ontwikkelen	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik dat verplicht ben	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik opzoek ben naar iets uitdagends naast mijn huidge baan	( )	( )	( )	( )	( )
Ik doe vrijwilligerswerk bij DOMunder omdat ik dit zie als een opstapje naar betaald werk in de erfgoedsector	( )	( )	( )	( )	( )

14. Doe je, naast je vrijwilligerswerk bij DOMunder, nog ander werk in de erfgoedsec*tor?[ja/nee]*

15. Mocht je jouw vrijwilligerswerk zien als een stap naar een betaalde baan, hoeveel draagt je vrijwilligerswerk hier dan aan bij denk je?

1 – Helemaal niet	2 – lichtelijk	3 – Gemiddeld	4 – Veel	5 – Erg veel	Niet van toepassing
( )	( )	( )	( )	( )	( )

Appendix B1: The You(R) Archaeology participant survey

Perception	P1	What category did you submit your work in? [please choose, multiple answers possible]	[ ] Drawing [ ] Photo [ ] Video
	P2	Why did you choose that specific category/ Those specific categories?	…
	P3	How long did it take you to create your artwork? [Please select, one answer possible]	[ ] Less than 1 hour [ ] 1 – 5 hours [ ] 5 – 10 hours [ ] More than 10 hours
	P4	Would you consider your art subject to be something local, national, international or a combination of those options? [please choose, multiple answers possible]	[ ] Local [ ] National [ ] International [ ] Not applicable
	P5	Do you consider yourself to be a professional artist? [please choose, one answer possible]	[ ] Yes [ ] No [ ] Don't know
	P6	Why did you want to take part in the contest?	…
Impact	I1	Participating in the contest increased my knowledge of archaeology [please choose, one answer possible]	[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree [ ] Not applicable
	I2	Please explain why you choose that answer …	…
	I3	Participating in this contest made me feel more connected to	…
		Local archaeology	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		National arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		International arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		The neighbourhood of my artwork	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		The people living in the area of my artwork	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
	I4	Contributing to the contest increased my pride for …	…
		Local archaeology	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		National arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		International arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
	I5	Was this contest a reason for you to get in touch with other people (for example discussing the contest, collaboration)? [Please choose, one answer possible]	[ ] Yes [ ] No [ ] Don't know
	I6	How much did your participating in the contest contribute to your … [please rate 1-5 for each aspect]	[ ] Motivation [ ] Self-consciousness [ ] Creativity [ ] Self-confidence [ ] Sense of involvement [ ] Self-acceptance [ ] Views on life [ ] Views on religion [ ] Understanding of the past

Impact	I7	Please indicate how much your participation in the contest affected the following emotions [please indicate for each aspect]	
		Happy	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Useful	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Relaxed	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Safe	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Capable	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Inspired	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Energetic	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Healthy	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Positive	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Anxious	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Angry	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Depressed	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Insecure	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Judged	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
	I8	Did you learn a new skill?	[ ] Yes [ ] No [ ] Don't know
	I9	Did you feel satisfied with your submission at the end of the process? [Please indicate, one answer possible]	[ ] Extremely dissatisfied [ ] Somewhat Dissatisfied [ ] Neither satisfied nor dissatisfied [ ] Somewhat satisfied [ ] Extremely satisfied
Demographics	D1	What is your age category?	[ ] 1-11 [ ] 12-20 [ ] 21-35 [ ] 36-60 [ ] Older than 60
	D2	What is your gender?	[ ] Male [ ] Female [ ] Prefer not to say
	D3	What is your country of residence?	[ ] France [ ] Australia [ ] Austria [ ] Belgium [ ] Denmark [ ] Germany [ ] Greece [ ] Italy [ ] the Netherlands [ ] Poland [ ] Portugal [ ] Spain [ ] Switzerland [ ] United Kingdom [ ] Other

Appendix C1: The Invisible Monuments visitor survey

Perception	P1	Were you familiar with the monument presented here (one selection possible)?	[..] Yes [..] No […] Don't know/ no answer
	P2	If your answer is yes, which one of them? Multiple selections possible.	[..] Neolithc settlement at IFT [..] Basilica of St. Sophia [..] The Circus [..] Roman Bath [..] Cubiculum [..] Yilan Mermer [..] Sergios Pragamas'temple
	P3	How long did you participate in the activity? [Please select, one answer possible]	[ ] Less than 1 hour [ ] 1 – 2 hours [ ] 3 – 4 hours [ ] More than 4 hours
	P4	Do you consider yourself to be a tourist or a resident? [please choose, one answer possible]	[ ] Tourist [ ] Resident [ ] Don't know
	P5	If you are a tourist, do you consider yourself to be a …	[ ] Local [ ] National [ ] International [..] Not applicable
	P6	Why did you want to take part in this activity?	…
Impact	I1	Participating in this activity increased my knowledge of archaeology [please choose, one answer possible]	[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree [ ] Not applicable
	I2	Please explain why you choose that answer	…
	I3	After completing the activity, I still want to know more about archaeology	[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree [ ] Not applicable
	I4	Would you like this digital application to have use for other monuments also, and more permanently as well	[..] Yes [..] No […] Don't know/ no answer
	I5	Participating in this activity made me feel more connected to …	
		Local archaeology	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		National arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		International arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		The people living in the area	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
	I6	Taking part in this activity increased my pride for	...

Impact		*Local archaeology*	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		National arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
		International arch.	[ ] Strongly disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly agree [ ] Not applicable
	I7	Did you do this activity on your own or with others, if the latter, how many others?	[ ] Alone [ ] With one other [ ] With two others [ ] With more than two others
	I8	Did you meet new people during your activity?	[ ] Yes [ ] No
	I9	How much did your participating in the contest contribute to your … [please rate 1-5 for each aspect]	[ ] Motivation [ ] Self-consciousness [ ] Creativity [ ] Self-confidence [ ] Sense of involvement [ ] Self-acceptance [ ] Views on life [ ] Views on religion [ ] Understanding of the past
	I10	Please indicate how much your participation in the contest affected the following emotions [please indicate for each aspect]	
		Happy	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Useful	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Relaxed	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Safe	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Capable	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Inspired	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Energetic	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Healthy	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Positive	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Anxious	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Angry	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Depressed	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Insecure	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
		Judged	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely [ ] Not applicable
	I11	Did you learn something new during your visit?	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely
	I12	Did you learn more than you expected to learn?	[ ] Not at all [ ] Slightly [ ] Somewhat [ ] Moderately [ ] Extremely

Impact	I13	Did you feel satisfied after completing the activity? [Please indicate, one answer possible]	[ ] Extremely dissatisfied [ ] Somewhat Dissatisfied [ ] Neither satisfied nor dissatisfied [ ] Somewhat satisfied [ ] Extremely satisfied
	I14	You feel more confident talking about archaeology after this activity	[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree
	I15	This activity contributed to your ability to better understand the value of archaeology	[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree
	I16	From your personal experience would you recommend the app to someone you know	[..] Yes [..] No […] Don't know/ no answer
Demographics	D1	What is your age category?	[ ] 1-11 [ ] 12-20 [ ] 21-35 [ ] 36-60 [ ] Older than 60
	D2	What is your gender?	[ ] Male [ ] Female [ ] Prefer not to say
	D3	Please select the furthest level of education you have completed:	[ ] No education [ ] Primary education [ ] Secondary Education (GCSE/O-Levels) [ ] Post-Secondary Education (College, A-Levels, NVQ3 or below, or similar) [ ] Vocational Qualification (Diploma, Certificate, BTEC, NVQ 4 and above, or similar) [ ] Undergraduate Degree (BA, BSc etc.) [ ] Post-graduate Degree (MA, MSc etc.) [ ] Doctorate (PhD) [ ] Not applicable
	D4	Are you currently working?	[..] Yes [..] No […] Don't know/ no answer
	D5	What is your profession	…
	D6	What is your country of residence	…

Summary

The opening section of this thesis describes how it forms part of the European NEARCH project. It outlines how the value of heritage, its multifaceted importance, its growing role in today's society, and the increasing pressure on the heritage sector to account for the spending of public funds are combined in this study. The section further delineates how this research uses a newly developed methodological framework as its basis of analysis. The introductory chapter ends with a description of the research objectives and deliverables, and a summary of the contents of the following chapters.

The second chapter covers both the theoretical and methodological framework. As part of the theoretical framework, it describes the concept of cultural heritage, and how archaeology fits into that concept. For this thesis, the general classification of cultural heritage by Klamer and Zuidhof (1998) is used, which places archaeology within the tangible variant of cultural heritage, both in the movable and immovable sections. Chapter two also discusses why the typology of heritage values by Mason (2002) is used as a frame of reference, which distinguishes between Economic and Socio-cultural values (Mason 2002, 10). Furthermore, this section describes the shift from historic/preservation values to the more societal values, as the main current interest in the value of heritage lies in its importance for today's society (Cultural Heritage Counts for Europe Consortium 2015; Blessi *et al.* 2014; Ander *et al.* 2013). The chapter also covers the importance of participation in public archaeological activities and distinguishes between Public Archaeology and Community Archaeology. After describing the importance of value in cultural heritage, the chapter proceeds to discuss the difference and overlap between value and impact, and how they form two sides of the same coin (Bollo 2013). The fundamental notion is that cultural heritage does not generate impact *per sé*, but must be considered as an "opportunity space in which regeneration occurs" (Pendlebury *et al.* 2004, 12). This presupposes that heritage is used as a conduit to create impact, rather than that the subject of archaeology creates impact by itself. This notion is used as a hypothesis for the remainder of this thesis and forms the offset against which results were analysed in the discussion chapter. The chapter furthermore describes the methodological framework for this thesis, adopted from Matarasso (1997), which distinguishes seven sociocultural 'headers'; Personal development, Social cohesion, Community empowerment and self-determination, Local image and identity, Imagination and vision, and Health and Well-being, which form the basis for the creation of impact indicators and survey questions. The chapter then describes the data collection process, discussing why online and face-to-face surveys

were used as a means to gather data and how the methodological approach by Bollo (2013) was used to generate survey questions on the basis of *activity* goals and *research* goals. Lastly, the chapter conveys which statistical test were used to analyze survey data.

Chapter three, the first of three case study chapters, focuses on DOMunder. Located in the center of the Netherlands, DOMunder provides its visitors with a unique archaeological activity. Three different stakeholders were selected; the DOMunder visitors, the residents living close-by, and the volunteers working at DOMunder as tour guides. Based on a combination of *activity* specific and *research* specific goals, impact indicators were selected and surveys were created. The analysis of the surveys provided insight into the impact of DOMunder for the three individual groups, with marked differences between both contents and results of the surveys, especially between visitors and residents and volunteers and residents. The sociocultural impact varies per stakeholder, but overall DOMunder generates a moderate amount of impact on its stakeholders. We see that a local focus is important in generating impact, as both visitors and residents seem to be more interested in the archaeology and history of Utrecht than that of the Netherlands and feel more connected to the former. The reasons for people's involvement in the activity, combined with their expectations and perspectives, seem to be in the dominant factors in impact generation. Visitors are mostly impacted in their education, involvement, inspiration, and motivation, but experience less impact on social aspects, including personal attributes such as self-confidence and self-consciousness. This is different for the volunteers, who seem to experience much more impact for these issues. Volunteers are also more motivated, happy, and satisfied than the visitors, especially those volunteers who are new and younger. Residents living close to DOMunder have visited, or want to visit, DOMunder mainly because of their interest in the history of Utrecht. However, if they do, they would rather visit with someone else than alone.

Chapter four covers the second large-scale case study: You(R) Archaeology. It describes how this project, as part of the NEARCH project, aimed to connect people with their past through an art contest. This would enable them to show their personal connections with archaeology and heritage. Participants were e-mailed a survey for this research project to analyze the sociocultural impact of such a contest. Just as for the DOMunder case study, a combination of *activity* specific and *research* specific goals formed the basis for indicators selection and survey creation. Results show that most participants used an international archaeological subject for their artwork; they felt most impact on pride for international archaeology. Furthermore, many people learned something about archaeology. However, for some the archaeological topic was less important; they seemed to join mainly to create (and showcase) art – alone or together with someone else (for instance, their children). Results show that people are impacted differently depending on their age (strongest impact was seen in the youngest age category, least in the oldest age category) and (somewhat) their gender, but it is not clear whether this impact is different because of different perceptions or because of different standards. Furthermore, there seems to be a connection between impact on personal emotions and impact on knowledge. In conclusion, it seems that a creative activity with an archaeological subject, while not having education as its main goal, still increases people's knowledge. Arguably, the impact on education is more linked to the

subject of the contest – archaeology -, whereas for several other 'side effects', such as social cohesion and health and wellbeing, the nature of the activity was key.

The next chapter covers the last case study of this research project, Invisible Monuments. This event took place in Thessaloniki (Greece) over the summer of 2016 and just as the You(R) Archaeology art contest, it formed part of the NEARCH project. The aim of this public activity was to connect people with forgotten monuments in the center of Thessaloniki. Participants were asked to fill out a survey, asking them about the sociocultural impact of the event. Just as for the previous two case studies, a combination of *activity* specific and *research* specific goals formed the basis for indicator selection and survey creation. Participants felt motivated and many of them indicated that the activity impacted their knowledge in a positive way. This increase in knowledge was noted mostly among higher educated people. Interestingly, knowledge increase and time spent were not correlated. There does seem to be a connection, however, between knowledge increase and the impact on people's emotions. Furthermore, it seems that the fast pace, inherent in the use of digital mobile technology in this activity, did not prevent participants from learning about the monuments or connecting them to the local archaeology. In conclusion, Invisible Monuments, successfully helps people connect to their past; to some it even provided an opportunity to meet (other) inhabitants of the city. There are indications that the activity created a longer lasting impact on the participants, hopefully leading towards a lasting impression and a 'living memory'.

The sixth chapter compares the case study data, revealing and discussing interesting patterns. Comparison between the three case studies is done on the basis of their corresponding activity goals, as per Bollo's (2013) methodological approach. These comparisons are divided over the six sociocultural 'headers' provided by Matarasso (1997) where possible (as not all case studies covered exactly the same topics, and for some different scales were used). It seems that overall mostly older and high-educated visitors participated; and the activities attracted more women, except for the DOMunder volunteers. Visitors from all case studies indicated that their interest in heritage and archaeology was the main reason for joining; other reasons, such as social reasons, where less important. Overall, these activities had a positive impact on people's lives. We see that younger participants indicate a higher impact on several indicators. It seems that the context, or nature, of the activities and the opportunities they bring does engender impact. However, perhaps sociocultural impact is not a determinant for attendance but a side-effect of visiting. Furthermore, while the contexts of these activities are based on their activity goals, not the goals themselves, but rather the way the activities aim to meet these, are important in determining the level of impact. This is concurrent with what Pendlebury and colleagues (2004) stated in chapter two. These findings present important considerations for heritage managers who want to organize similar public activities. Based on these findings, a model is created to provide future researchers and cultural heritage managers with a tool to predict and steer sociocultural impact. The chapter ends by connecting the topic of this thesis – sociocultural impact – with the concept of Sustainable Development. It is argued that sociocultural impact analysis of cultural heritage can contribute as means to validate cultural heritage as an important asset for a sustainable future.

Finally, the seventh chapter summarizes the vital points from the previous chapters, within the perspective of the future of heritage activities and how they (should) be organized. Impact studies such as this research provide the heritage field with qualitative as well as quantitative data to base their outreach strategies on; it shows that archaeology, through cultural heritage, can contribute to Sustainable Development. Archaeology forms more than just an interesting pastime for people as it also contributes to societies' current issues.

Samenvatting

De impact van actie: de sociaal-culturele impact van publieksactiviteiten in de archeologie.

Het begin van deze dissertatie beschrijft hoe dit onderzoek deel uitmaakt van het Europese NEARCH-project. Het beschrijft hoe de waarde van erfgoed, zijn multifactoriële belang, groeiende rol in de huidige maatschappij en de toenemende druk van de erfgoedsector om het spenderen van publiekelijk geld te verantwoorden worden samengevoegd in dit onderzoek. Dit hoofdstuk schetst tevens hoe dit onderzoek is gebaseerd op een nieuw ontworpen onderzoeksmethode als kader voor de analyse. Het inleidende hoofdstuk besluit met een beschrijving van de onderzoeksdoelen en verwachte resultaten en een korte samenvatting van de volgende hoofdstukken.

Het tweede hoofdstuk behandelt het theoretische en methodologische aspect van dit onderzoek. Als onderdeel van eerstgenoemde, wordt eerst het concept van cultureel erfgoed, en hoe archeologie hier onder valt, behandeld. De algemene classificatie van Klamer en Zuidhof (1998) wordt gebruikt voor deze dissertatie. Deze classificatie plaatst archeologie binnen het tastbare gedeelte van cultureel erfgoed, zowel verplaatsbaar als niet-verplaatsbaar. Dit hoofdstuk behandelt tevens de erfgoed-waarde typologie van Mason (2002) welke wordt gebruikt als naslagwerk en onderscheid economische van socioculturele waarden (Mason 2002, 10). Verder beschrijft dit hoofdstuk de verschuiving van historische/beschermende waarden naar meer maatschappelijke waarden. Dit sluit aan bij de huidige tendens die het belang van erfgoed koppelt aan de hedendaagse maatschappij (Cultural Heritage Counts for Europe Consortium 2015; Blessi *et al.* 2014; Ander *et al.* 2013). Het hoofdstuk behandelt ook het belang van deelname aan publieke archeologie-activiteiten en maakt een onderscheidt tussen *Public Archaeology* en *Community Archaeology*. Na het beschrijven van de waarden van cultureel erfgoed behandelt het hoofdstuk het verschil en de overeenkomst tussen waarde en impact en hoe deze twee zijdes van dezelfde munt zijn (Bollo 2013). De fundamentele opvatting hier is dat cultureel erfgoed geen impact genereert per sé, maar dat het moet worden gezien als een "plek waar vernieuwing kan plaatsvinden" (Dutch translation) (Pendlebury *et al.* 2004, 12). Dit veronderstelt dat erfgoed gebruikt kan worden als een geleider om impact te creëren en verschilt van de opvatting dat het onderwerp archeologie uit zichzelf impact genereert. Deze opvatting wordt gebruikt als primaire hypothese binnen deze dissertatie en vormt daardoor een ijkpunt waartegen de resultaten kunnen worden geanalyseerd. Bovendien beschrijft dit hoofdstuk het methodologische raamwerk welke gebruikt wordt voor dit onderzoek en welke is

gebaseerd op het werk van Matarasso (1997), welke onderscheid maakt tussen zeven socioculturele 'thema's', namelijk persoonlijke ontwikkeling, sociale cohesie, zelfbeschikking van de lokale gemeenschap, lokaal beeld en identiteit, verbeelding, visie en gezondheid, welke de basis vormen voor de creatie van indicatoren en surveyvragen. Dit hoofdstuk behandelt tevens het proces van data-collectie en beschrijft hoe *online* en *face-to-face* enquêtes worden gebuikt als middel om data te genereren en hoe de methode van Bollo (2013) werd gebruikt om de enquêtevragen te baseren op activiteit- en onderzoeksdoelen. Tenslotte beschrijft dit hoofdstuk nog hoe statistische tests werden gebruikt voor de analyse van enquêtedata.

Hoofdstuk drie, de eerste van de drie casestudies, is gericht op DOMunder: een unieke archeologische bezoekersattractie gelegen in het midden van Nederland. Er zijn drie verschillende *stakeholders* geselecteerd: de bezoekers van DOMunder, de omwonenden en de vrijwilligers die bij DOMunder de rol van tourgids vervullen. Impact indicatoren werden geselecteerd op basis van activiteit- en onderzoeksdoelen. De enquêtes zijn vervolgens gebaseerd op deze indicatoren. De analyse van de enquête werpt licht op de impact op deze drie groepen, met name de verschillen tussen de bezoekers en omwonenden en vrijwilligers met omwonenden. De sociaal-culturele impact verschilt per stakeholder, maar over het algemeen genereert DOMunder een middelmatige impact. We zien dat een lokale focus belangrijk is voor het genereren van impact gezien het feit dat zowel de bezoekers als omwonenden een sterkere band voelen met de archeologie en geschiedenis van Utrecht dan met die van Nederland. De reden voor de betrokkenheid van mensen bij deze activiteit, gecombineerd met hun verwachtingen en perspectieven, lijkt de dominante factor te zijn voor het genereren van impact. Bij bezoekers is de impact op educatie, betrokkenheid, inspiratie en motivatie het hoogste; minder impact is gemeten op sociale aspecten inclusief persoonlijke eigenschappen zoals eigenwaarde en zelfbewustzijn. Dit is anders voor de vrijwilligers die een veel hogere impact noteren voor deze aspecten. Zij zijn meer gemotiveerd, vrolijk en tevreden dan de bezoekers, zeker de vrijwilligers die jonger en nieuwer zijn. Bezoekers die dichtbij DOMunder wonen hebben DOMunder bezocht, of gaan die nog bezoeken, voor hun interesse in de geschiedenis van Utrecht. Echter, als zij het zouden bezoeken doen ze dat het liefst samen met iemand anders.

Hoofdstuk vier beschrijft de tweede grootschalige casestudy van deze dissertatie genaamd You(R) Archaeology. Als eerste beschrijft het hoofdstuk hoe deze activiteit deel uitmaakt van het NEARCH-project en als doel heeft mensen met archeologie te verbinden door het houden van een kunstwedstrijd. Deze wedstrijd zou ervoor zorgen dat deelnemers hun connectie met erfgoed zouden kunnen uiten. De deelnemers van deze wedstrijd werden ge-e-maild met de vraag of zij deel wilden nemen aan de enquête over de sociaal-culturele impact van hun participatie. Net als voor DOMunder werden ook hier de activiteits- alsmede de onderzoeksdoelen gebruikt voor het genereren van indicatoren en het creëren van de enquêtevragen. De resultaten laten zien dat de meeste deelnemers internationale archeologische onderwerpen hadden gekozen voor hun kunstwerk; de meeste impact werd gescoord voor toename van trots op internationale archeologie. Veel mensen hebben iets geleerd over archeologie. Voor sommigen was het onderwerp van archeologie echter minder belangrijk: zij deden vooral mee voor het tentoonstellen van hun kunst, alleen of samen met iemand anders (bijvoorbeeld hun kinderen). Resultaten laten tevens zien dat de impact anders is per

leeftijdscategorie (sterkste impact is gemeten bij de jongste leeftijdscategorie, de minste impact bij de oudste leeftijdscategorie) en enigszins per geslacht. Het is echter niet duidelijk of deze verschillen komen door de mate van perceptie of andere standaarden. Verder lijkt er een connectie te zijn tussen impact op persoonlijke emoties en impact in kennis. Concluderend kan er gezegd worden dat een creatieve activiteit zoals You(R) Archaeology, met een archeologisch onderwerp, die niet educatie als voornaamste doel heeft, nog steeds impact genereert op de kennis van mensen. Wellicht is de impact op educatie meer gelinkt met het onderwerp van de wedstrijd – archeologie – terwijl impact op andere aspecten, of 'bijwerkingen', zoals sociale cohesie en gezondheid, meer komt door de aard van de activiteit.

Het volgende hoofdstuk behandelt de laatste casestudie van dit onderzoeksproject: Invisible Monuments. Deze activiteit vond plaats in Thessaloniki (Griekenland) gedurende de zomer van 2016 en maakt net als You(R) Archaeology deel uit van het NEARCH-project. Het doel van deze activiteit was om mensen te verbinden met de vergeten monumenten die zich verspreid over het centrum van Thessaloniki bevinden. Deelnemers werden verzocht de enquête in te vullen waarin hen werd gevraagd naar de sociaalcultere impact van hun deelname. Net als voor de vorige twee casestudies waren de vragen van deze enquête gebaseerd op indicatoren gegenereerd uit de activiteits- en onderzoeksdoelen. Deelnemers voelden zich gemotiveerd en veel van hen noteerden een positieve impact op kennis, voornamelijk merkbaar onder de hoger opgeleiden. De impact op kennis en de duur van deelname hadden geen verband. Er lijkt zich echter wel een verband te bevinden tussen de impact op kennis en de impact op de emoties. Verder lijkt de snelheid van de activiteit, inherent aan het gebruik van digitale mobiele technologie, geen impact te hebben op de impact op kennis en op het maken van een connectie met de lokale archeologie. Concluderend lijkt Invisible Monuments succesvol te zijn in het verbinden van haar deelnemers met hun geschiedenis, voor sommigen voorzag de activiteit ook in de mogelijkheid om andere inwonenden van de stad te leren kennen. Er zijn indicaties dat de activiteit een langdurige impact heeft gegenereerd die mogelijk tot een 'living memory' leidt.

Het zesde hoofdstuk vergelijkt de casestudie data van de drie casestudies; interessante patronen worden hier bediscussieerd. De vergelijking van de drie casestudies gebeurt op basis van de activiteitsdoelen en de methodologie van Bollo (2013). De vergelijkingen zijn verdeeld, voor zover mogelijk, over de zes sociaal-culturele 'thema's' gesuggereerd door Matarasso (1997). Het lijkt dat voornamelijk ouderen en hoger opgeleiden deel hebben genomen aan de activiteiten; het merendeel blijkt tevens vrouwelijk te zijn (behalve voor de vrijwilligers van DOMunder). Deelnemers van alle drie de casestudies gaven aan dat hun interesse voor het onderwerp van archeologie de voornaamste reden voor deelname was. Andere redenen, zoals sociale, waren van minder belang. Over het algemeen hadden de activiteiten een positieve impact op de levens van de mensen. We zien dat jongere deelnemers een hogere impact noteerden over de verschillende indicatoren. Het lijkt erop dat de context, of de aard van de activiteiten en de kansen die deze brengen, impact genereren. Wellicht is sociaal-culturele impact geen reden voor deelname, maar een bijwerking. Verder lijkt het erop dat niet de activiteitsdoelen zelf de mate van impact bepalen, maar meer de manier waarop deze doelen worden behaald. Dit lijkt sterk op wat Pendlebury en collega's (2014) schrijven (hoofdstuk twee). Deze bevindingen zijn belangrijk voor erfgoedmanagers

die publieksactiviteiten moeten organiseren. Op basis van deze bevindingen is een model gecreëerd dat toekomstige onderzoekers en erfgoedmanagers voorziet van gereedschap om sociaal-culturele impact zowel te voorspellen als te sturen. Het hoofdstuk sluit af met het verbinden van het onderwerp van deze dissertatie – sociaal-culturele impact – met het concept van *Sustainable Development*. Er wordt beargumenteerd dat de impactanalyse van cultureel erfgoed een aandeel vormt in de manier waarop erfgoed kan bijdragen aan een duurzame toekomst.

Tenslotte vat het zevende hoofdstuk de belangrijkste punten van de voorgaande hoofdstukken samen binnen het perspectief van de toekomst van publieksactiviteiten in de archeologie en hoe deze zouden kunnen worden georganiseerd. De studie van impact, zoals deze in dit onderzoek gebeurde, voorziet de erfgoedsector van kwalitatieve en kwantitatieve data om hun strategie op te baseren. Het laat zien dat archeologie, als cultureel erfgoed, kan bijdragen aan *Sustainable Development*. Archeologie is zo meer dan een interessante vrijetijdsbesteding, en draagt een uniek perspectief bij aan de huidige maatschappelijke vraagstukken.

Curriculum Vitae

Krijn Hendrikus Johannes Boom was born in de Bilt on 5 December 1985. He achieved two bachelor degrees (Graphic Design -2006- at the Grafisch Lyceum Utrecht, and Communication Science -2009- at the Hogeschool Utrecht) before he started his archaeological career in 2009 at the Faculty of Archaeology, Leiden University. There, he obtained his BA degree in 2012 with his thesis *Tussen Maas en Rijn: De oudste vuurstenen artefacten uit Woerden?*, and his MA degree in 2013 with his thesis *Rebuilding Identities: The difficulties and opportunities of rehabilitation through the reconstruction of cultural heritage in post-war Yugoslavia*.

In 2013, he obtained a four-year PhD position as an independent researcher within the European NEARCH (*New ways of Engaging audiences, Activating societal relations, and Renewing practices in Cultural Heritage)* project. Research and this publication forms one of the main deliverables. Next to his PhD position, Krijn was Track Leader of two other projects within the same project; *a field atelier for community involvement in archaeology and heritage management – Tell Balata,* and *Assessing archaeological relevance and community involvement in UNESCO World Heritage Sites*. In 2015-2016 he was both Project Manager for CommonSites, a start-up company in the Heritage sector, where he was responsible for the management of several small to medium scale projects, and Teaching Assistant for the Massive Online Open Course (MOOC) *Heritage under Threat*, which is available on the Coursera platform. For the latter project, he was responsible for the set-up and management of the MOOC and acted as a liaison between the Department of Archaeological Heritage and Society, the Center for Global Heritage and Development, and the Leiden University Centre for Innovation. In that year, he also became an affiliated researcher at the Centre for Global Heritage and Development, and co-founded the VALUE project – for research and outreach on the past, heritage, and video games, which was later formalized as the VALUE foundation, opening up to other academic sectors.

Some of his key publications reveal his love for videogames and the past; *The Interactive Past: Archaeology, Heritage, and Video Games* (2017), and *Video Games in Archaeology: Enjoyable but Trivial?* (2017). Other publications, such as *Archaeology, Heritage, and Social Value: Public Perspectives on European Archaeology*, and *The image of archaeology, consistencies and deflections through time among the Dutch, concurrencies and deviations across Europe (2018)*, are all thanks to his involvement in the NEARCH project.

Since 2017 Krijn obtained a position as Project Manager Blended Learning at the University of Amsterdam, Faculty of Sciences, combining his love for media and science in order to innovate teaching and provide students with a meaningful, yet fun way of learning.

IMPRINT OF ACTION

Cultural heritage, which includes archaeology, is recognized as serving an increasingly important role in European societal development. But what exactly is the relevance of archaeology to present day citizens? Imprint of Action investigates the sociocultural impact of archaeology through public activities. These activities provide an ideal setting for research, as they represent a structured point of encounter between the public and archaeological heritage; in analysing them, aspects of people's connections to the past are revealed. As such this research forms an integral part of the NEARCH project (2013-2018).

As a basis for analysis, survey data from three large-scale case studies – 'DOMunder' (Netherlands), 'You(R) Archaeology' (Cross-Europe), and 'Invisible Monuments' (Greece) was used. The analysis and interpretation of the case studies is based on a newly created methodological framework which finds its roots in the broader culture and arts sector. Results shows that activities encourage participation and interaction, which engenders sociocultural impacts on participants, most notably in knowledge increase, skill development, social relations, and happiness.

Imprint of Action is the first large-scale study focussing entirely on sociocultural impact in archaeology and, as such, is explorative in nature; it provides unique insights into the workings of interaction and participation in archaeological events, and openly shares qualitative and quantitative research data with the expanding field. In doing so, Imprint of Action lies the foundations for further analysis of the societal impact of both large- and small-scale heritage projects and identifies the incontestable values of archaeological heritage to the public.

Sidestone Press

ISBN: 978-90-8890-699-2