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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
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,\textsuperscript{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),

\textsuperscript{13} https://www.promovendum.nl/blog/grootste-steden-nederland-2014-top-10
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.\(^\text{14}\) 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\(^\text{15}\) in 2005 to create a legal and professional foundation (Initiatief Domplein 2013 2014). Part of this foundation is ‘Initiative Domplein\(^\text{16}\), a private initiative aiming to showcase and make publicly accessible 2000 years of Domplein history.\(^\text{17}\)

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 2\(^\text{nd}\), 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. 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.\textsuperscript{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 \textit{Positioning Strategy Paper} (Rennen 2013) and in the \textit{Second 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 \textit{Development Vision} document, by Initiative Domplein (Initiatief Domplein 2013 2008) and the \textit{Program of Essences} document, also written by Initiative Domplein (Initiatief Domplein 2013 2010) were analysed.

In the DOMunder \textit{Positioning Strategy Paper}, two distinct goals are presented (Rennen 2013, 3):

\textsuperscript{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:


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):


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.
<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
<th>Tier 4</th>
<th>Tier 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matarasso's (1997)</td>
<td>Applicable actions based on Matarasso's (1997) list</td>
<td>Specific DOMunder actions</td>
<td>Relevant Social Indicators</td>
<td>Possible questions</td>
</tr>
<tr>
<td></td>
<td>Local image and identity</td>
<td></td>
<td></td>
<td>Do you feel connected to Utrecht/The Netherlands?</td>
</tr>
<tr>
<td></td>
<td>Develop pride in local traditions and culture.</td>
<td>Bring DOMunder to people’s attention</td>
<td>Number of visitors already knowing about DOMunder before visiting Utrecht.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Help people feel a sense of belonging and involvement.</td>
<td>Position DOMunder as part of a cultural ‘oldspot’.</td>
<td>Number of visitors visiting DOMunder as their primary goal.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improve perceptions of marginalized groups.</td>
<td>Show visitors that Utrecht was founded here.</td>
<td>Number of visitors seeing the Dom square as a social forum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make people feel better about where they live.</td>
<td>Present Roman Utrecht as part of the Limes.</td>
<td>‘connectedness’ to the Netherlands.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visualize the various historical layers.</td>
<td>‘connectedness’ to the various historical era’s.</td>
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<td></td>
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<td></td>
<td>Do you think that the Dom square could be used as a social platform?</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Do you know what the Limes is?</td>
</tr>
<tr>
<td></td>
<td>Personal Development</td>
<td>Support and stimulate education for children.</td>
<td>Number of school-children and classes.</td>
<td></td>
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<tr>
<td></td>
<td>Contribute to education.</td>
<td>Stimulate personal interest and valuation of archaeological heritage.</td>
<td>Number of children who learned something new about the history of Utrecht.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Help build new skills and work experience.</td>
<td>Visualize the various historical layers.</td>
<td>Personal valuation of archaeology.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribute to people's employability.</td>
<td></td>
<td>Number of people, adults and children, who gained a new skill.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Help people to develop or take up careers in archaeology.</td>
<td></td>
<td>pupil-hours of schooling delivered.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of people who gained self-worth and/or confidence.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Number of partnerships with education bodies.</td>
<td></td>
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<td></td>
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<td></td>
<td>Number of adult education programs.</td>
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<td></td>
<td></td>
<td></td>
<td>Number of participants in these programs.</td>
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<tr>
<td>Table 3.1: Social indicators for the visitor questionnaire. After Matarasso (1997) and the North East Regional Museums Hub Tool.</td>
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</tr>
<tr>
<td>Tier 1</td>
<td>Tier 2</td>
<td>Tier 3</td>
<td>Tier 4</td>
<td>Tier 5</td>
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<tr>
<td>--------</td>
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</tr>
<tr>
<td>Matarasso's (1997) headings</td>
<td>Applicable actions based on Matarasso's (1997) list</td>
<td>Specific DOMunder actions</td>
<td>Relevant Social Indicators</td>
<td>Possible questions</td>
</tr>
<tr>
<td><strong>Social Cohesion</strong></td>
<td>Develop community networks and sociability.</td>
<td>Present DOMunder as part of the Dom square, ergo, as part of a new social forum.</td>
<td>Number of people contributing to a discussion.</td>
<td>Have you talked to anyone from the group?</td>
</tr>
<tr>
<td></td>
<td>Provide a forum for intercultural understanding and friendship.</td>
<td>Support social interaction for visitors, both adults and children.</td>
<td>Number of people agreeing to seeing the Dom square as a social forum.</td>
<td>Did you contribute to a discussion?</td>
</tr>
<tr>
<td></td>
<td>Develop contact between generations.</td>
<td>New connections made.</td>
<td>New connections made.</td>
<td>Did you ask a question to the tour operator?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of new friendships.</td>
<td>‘sense’ of community.</td>
<td>Did you discuss the tour with your fellow group members?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number and percentage of visitors by ethnicity.</td>
<td>Number and percentage of visitors by socio-economic status.</td>
<td>Did you discuss archaeology with your fellow group members?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Did you feel connected to the other members of the group?</td>
</tr>
<tr>
<td><strong>Community Empowerment and self-determination</strong></td>
<td>Encourage local self-reliance and project management.</td>
<td>Stimulate self-education and discovering through curiosity.</td>
<td>Number of research goals met.</td>
<td>Have you set up your own research goals and met them?</td>
</tr>
<tr>
<td></td>
<td>Be a means of gaining insight into political and social ideas.</td>
<td>Facilitate public participation.</td>
<td>Political insight gained.</td>
<td>Did you learn something about the political and social background of the Netherlands?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Did you follow your own route in the tour?</td>
</tr>
<tr>
<td><strong>Imagination and vision</strong></td>
<td>Allow people to explore their values, meanings, and dreams.</td>
<td>Present activity as experience.</td>
<td>‘experience’-rating. New insights gained.</td>
<td>Did you think DOMunder is a different experience than other heritage museums?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stimulate the senses.</td>
<td></td>
<td>How would you rate your experience?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Would you consider your visit to DOMunder a new experience in your life?</td>
</tr>
<tr>
<td><strong>Health and well-being</strong></td>
<td>Have a positive impact on how people feel.</td>
<td>Support cyclists and pedestrians.</td>
<td>Visitors visiting on foot/by bicycle.</td>
<td>Did you enjoy your visit?</td>
</tr>
<tr>
<td></td>
<td>Provide a unique and deep source of enjoyment – part of a person’s quality of life.</td>
<td></td>
<td>Subjective happiness.</td>
<td>Do you feel happy after your visit?</td>
</tr>
</tbody>
</table>

**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 sociocultural impact in the arts sector, and the North East Regional Museums Hub20, 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 year21, 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.

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.

<table>
<thead>
<tr>
<th>Resident research goals</th>
<th>Topics</th>
<th>Possible survey questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To understand the scope of sociocultural impact of DOMunder on the daily lives of residents living close by</td>
<td>Impact of living close by DOMunder reason for staying in Utrecht Notice increase in visitors and how does that impact your life</td>
<td>Do you like living close by an archaeological attraction? Do you notice an increase in visitors? How does that affect you?</td>
</tr>
<tr>
<td>Create insight into the potential impact of visiting DOMunder</td>
<td>Interest in Dutch versus Utrecht archaeology Reasons for potential visit Visiting company</td>
<td>How interested are you in archaeology? Have you visited DOMunder yet? Are you planning to? With whom would you visit if you were?</td>
</tr>
<tr>
<td>Create insight into the potential social impact of DOMunder versus the Domplein Square</td>
<td>Association of residents with Domplein Square Social role of Domplein square versus DOMunder Other benefits</td>
<td>Where do you associate the Domplein Square with? Do you see a social role for the Domplein Square? And for DOMunder?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volunteer research goals</th>
<th>Topics</th>
<th>Possible Survey Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get basic demographic data</td>
<td>Gender Age categories</td>
<td>What is your gender Age categories: 20-30, 31-40, 41-50, 51-60, 60+</td>
</tr>
<tr>
<td>Understand time investment and reasons for doing volunteer work for cross-comparison</td>
<td>Time active as a volunteer Relation with other work Reasons for doing volunteer work</td>
<td>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?</td>
</tr>
<tr>
<td>Create insight into the scope of the impact of DOMunder for the volunteers</td>
<td>Impact on skills Impact on personal traits Impact on meeting new people</td>
<td>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?</td>
</tr>
</tbody>
</table>

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 18\textsuperscript{th} and 23\textsuperscript{th} 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.](image-url)
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, 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 responses 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.

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).](image-url)
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.
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
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 3.9: Connectedness to the various time periods (n=63). Figures shown are weighted averages. Note the clear divide between the two groups of time periods.
3.5.1.3 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.
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).
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...
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

<table>
<thead>
<tr>
<th></th>
<th>21-30 (n=7)</th>
<th>31-40 (n=4)</th>
<th>41-50 (n=9)</th>
<th>51-60 (n=17)</th>
<th>60+ (n=26)</th>
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<tbody>
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<td>2.1</td>
<td>2.1</td>
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<td>2.7</td>
<td>1.9</td>
<td>1.7</td>
<td>2.0</td>
<td>2.0</td>
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<tr>
<td>Views on life</td>
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<td>3.3</td>
<td>2.3</td>
<td>1.9</td>
<td>1.8</td>
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<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
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<td>3.3</td>
<td>1.9</td>
<td>2.2</td>
<td>2.3</td>
<td>2.2</td>
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<tr>
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<td>2.0</td>
<td>1.7</td>
<td>1.6</td>
<td>2.2</td>
<td>1.9</td>
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<tr>
<td>Creativity</td>
<td>2.4</td>
<td>2.7</td>
<td>2.3</td>
<td>2.0</td>
<td>2.5</td>
<td>2.3</td>
</tr>
<tr>
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<td>2.7</td>
<td>2.0</td>
<td>1.8</td>
<td>2.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Motivation</td>
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<td>2.7</td>
<td>2.3</td>
<td>2.3</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16.9</td>
<td>23.7</td>
<td>17.9</td>
<td>17.0</td>
<td>21.0</td>
<td>19.2</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>1.9</strong></td>
<td><strong>2.6</strong></td>
<td><strong>2.0</strong></td>
<td><strong>1.9</strong></td>
<td><strong>2.3</strong></td>
<td><strong>2.1</strong></td>
</tr>
</tbody>
</table>

*Table 3.3: Weighted average scores for personal attributes per age category. Green shows the highest scores, red the lowest.*
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).
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 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 through 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,
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.
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 (Maer et al. 2016; Cultural Heritage Counts for Europe Consortium 2015; Anders et al. 2013; Rosenberg 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 (Maer et al. 2016; Rosenberg 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%).
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.

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).
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.
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.
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
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 to 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).](image)

![Figure 3.28: Comparison between interest in Dutch and Utrecht archaeology by residents, local visitors, and non-local visitors.](image)
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-
Case study: DOMunder

Visiting 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 de France, was hosted in Utrecht and the cyclists’ 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 3.31: 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).
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 sociocultural 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
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
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
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-
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.
Case study: DOMunder (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 3.39: Weighted average scores on skill development (n=32). Y-axis represents the weighted average, x-axis the answer categories.](image)

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

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

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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.