UNEARTHING MATERIAL CULTURE: HOLOCAUST OBJECT BIOGRAPHIES AS EVIDENCE OF LIFE.

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ABSTRACT

Archaeological material culture provides interpretations regarding past human life. Increasingly this material culture has been used to explore the personal life and the biographies of individuals immersed in the past (eg Joy 2009; Grassby 2005).

This dissertation has applied this premise to material culture associated with the Holocaust and has explored the possibility of an affective dissemination format with the inclusion of object biographies. The research hypothesis stated "a Holocaust artefact when accompanied by an object biography has a greater emotional affect on an audience than an object without a biography". The data from a questionnaire allowed a comparison of 120 participant emotional responses to four objects with a biography to the responses to six objects without a biography. The data also encouraged supplementary enquiries exploring the affect of different object types and how participant gender and age impacts on emotional responses to Holocaust artefacts.

The research results demonstrated that there **is** a significant difference between the emotional responses for items with and without an object biography; items with an object biography produced a higher emotional response from participants. The results also demonstrated a correlation between Holocaust object type and emotional response; higher emotional responses did correlate with personal items, items associated with a specific group and sentimental items. Additionally, a weak but positive correlation with gender and emotional response was identified. A significant difference between male and female emotional responses was determined indicating that female participants had higher emotional response scores. Finally, a significant difference was identified between the three participant age groups and their emotional responses.
This research considers the use of **e**ffective exhibits across Holocaust museum sites and observer engagement and empathy when presented with displays emphasising the scale of death. The experience of 'shock' may limit an emotional connection with an individual immersed in the Holocaust.

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It would be fair to say that this research journey has been a mixture of many different emotions. This included many high points and affirmed a commitment to archaeological studies but also many occasions of academic self doubt and frustrations. The subject matter of the Holocaust obviously presents emotional challenges and a constant need to evaluate academic objectivity and research presentation. In addition, the ongoing challenges of the 2020 Covid 19 pandemic have presented further pressures including cancelling research visits to Holocaust sites and adapting the research methodology to suit. National lockdowns and restrictions have not only impacted us all personally but have also limited many opportunities for extended academic collaboration.

Firstly, I would like to express my gratitude to my academic supervisor Professor John Schofield. Having supervised my undergraduate studies and dissertation I was pleased that he agreed to supervise my Masters by research. I would like to say thank you for your patience, for listening to me repeat myself and asking the same questions several times! Thank you for providing valuable feedback and your academic encouragement and personal support throughout my research.

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Finally, I would like to thank all the questionnaire participants, without their time this research would simply not have the data necessary and the valuable insights into the affect of Holocaust object biographies.

DECLARATION

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other University. All sources are acknowledged as References.

CHAPTER ONE: INTRODUCTION

1.1 Foundations of research

Material culture forms the basis of archaeological investigation and can be defined as: a term used to describe the objects produced by human beings, including buildings, structures, monuments, tools, weapons, utensils, furniture, art, and indeed any physical item created by a society (Oxford reference 2021).

This research focuses on Holocaust archaeology. The author proposes this to be; the identification, investigation and interpretation of material culture, including spatial and structural features associated with the Holocaust and the people immersed in that period of atrocity. Sturdy Colls (2015) includes the practical application of archaeological methods to Holocaust sites and objects within a definition. Archaeological research to date surrounding this material culture has contributed to our contextual understanding of the Holocaust and provided a solid platform for this research. This includes valuable debate and interpretations, providing additional knowledge regarding the spatial dynamics and structural function at concentration camps (eg Bosma 2016; Sturdy Colls 2020). Beyond these physical spaces and structures, the possession of certain material culture by camp prisoners can invite an insight and context into the psychology of incarceration and survival techniques. Subtle behaviour such as prisoner resistance (Bergqvist-Ryden 2017) has been proposed, including material culture that appears practical in nature, for example; the production and need for a small calendar. However, these simple objects allowed a prisoner to subtly observe sacred dates (Rosen 2019) and could be argued to be a form of intellectual and cultural resistance. Camp prisoner politics including a lack of camaraderie, group conflict and a camp hierarchy have also been proposed (Moshenska and Myers 2011). These areas of enquiry are fully addressed in Chapter Two: Literature Review.

What seems apparent is that Holocaust enquiry has gradually evolved from quantifying the number of sites and the scale of death, to an increasingly intimate enquiry regarding individual motivation and experience. This depth of research and more personal enquiries encourage questions pertaining to how much more detail could be discovered about the individual. This necessarily invites questions regarding how an intimate and biographical insight into the life of an individual, who experienced the Holocaust may

be received by modern audiences and ultimately; how information about the Holocaust is disseminated through Holocaust museums and sites.

This required a consideration of the distinction between an **a**ffective and an **e**ffective approach to Holocaust material culture across platforms responsible for the dissemination of this historical atrocity. Affective can be defined as; 'to elicit an emotional response to material, such a response that evokes a physical or psychological reaction' encouraging empathy and emotion. In contrast to; effective which is defined as; 'information or material that is successful in producing a desired or intended result'. (https://dictionary.cambridge.org/). Initial research of affective and effective approaches inspired the research direction; that a 'one size fits all' and an effective dissemination of the Holocaust is not always an appropriate format, often equating to achieving the result of merely shocking observers of historical material (Mulder 2014). This research proposes the addition of an affective dissemination style that could be more widely incorporated across institutions and platforms responsible for informing public audiences about the Holocaust. The effective dissemination of statistics and wider research pertaining to the scale of death, the geography of the Holocaust, the political landscape and the often-graphic imagery required to support these facts provide micro-histories and context regarding the Holocaust (Zalc 2019). However, we must also consider the evolving demands of future generations with regards to identifying, empathising and understanding this recent atrocity. This personalisation is proposed in the International Holocaust Remembrance Alliance 2019 recommendations for teaching and learning about the Holocaust:

'Repeated references to "the six million" risk subsuming communities and individuals into a faceless mass and attempts to envision the enormity of numbers can further depersonalise and dehumanise. Instead, wherever possible use case-studies, survivor testimony, and letters and diaries from the period to show human experience. Learners should be able to give examples of how each "statistic" was a real person, with a life before the Holocaust, existing in a context of family, friends and community'.

This distinction between effective and affective encouraged a consideration of what presentation formats that extend beyond demographics, statistics and shock could provide a portrayal of a life, rather than simply evidence of death. This resulted in

exploring whether Holocaust artefacts, presented with an object biography, would be an affective format and resonate with observers.

An object biography can be defined as; ‘a story told through an object. The term biography literally means the writing of a life, a life told as a story’ (Southerton 2011). In order to propose the use of and produce object biographies it is crucial to understand their construction, purpose and how this approach can be particularly affective for certain subjects. The process of creating an object biography requires access to other research, archived documents, testimony, images and artefacts. This research will explore all previous enquiries and consider all available detail, context and approaches in the construction of an object biography. This research required a thorough examination of the object chosen and its deposition location, Sobibór, Poland. This case study site research provided context and spatial detail assisting with an understanding of where, what and why the object selected (an identification tag) was separated from its owner. The full Sobibór case study is presented in Appendix 1 including an overview of the archaeological projects conducted there. The identification tag is prominent in this research; as an object biography was compiled during the research process and is an example of how much detail can be obtained from an object.

Research has extended to consider if and how we ‘value’ the material culture remaining at Holocaust sites. Carr (2017; 2018) research is explored regarding the change in the original value of this material for a prisoner, to disposal and then either remaining in situ or retrieval. Research has provided an indication of the possible inherent value assigned by the owner of this material culture (Wiesel cited in Bergvist-Ryden 2017) followed by a possible disregard today for the value of this material across Holocaust sites and reluctance to embrace the value of affective connections compared to effective displays of death. Carr also considers the monetary value today of Holocaust material culture regarding camp hierarchy, defined by media exposure and public demand. Additional values are explored including the historical significance value, to the research, exhibit and dissemination value (Sturdy Colls and Branthwaite and Dunstone (2016) alongside possible contradictions, debate and ignored material culture.

The value and contribution within a museum setting is also explored by Young (1993) who dismisses artefact based exhibits and questions their value regarding knowledge acquisition. This research explores the question of value by suggesting that true value

can be achieved by encouraging an emotional affect regardless of the site notoriety; rendering any monetary worth insignificant with a focus on an object's original importance, historical role and affective dissemination potential. More recent research surrounding exhibit challenges and questions about presentation in practice is explored by Carr et al (2017). Sturdy Colls and Branthwaite and Dunstone (2016) explore opportunities for artistic responses to material culture excavated at Treblinka camp, Poland by providing dialogue through new methods. The value regarding museum presentation is particularly relevant for this research when considering the proposed value of empathy and an emotional connection for observer experience.

It could be argued that early information of the Holocaust was often motivated by a need to report and demonstrate the inhumane treatment of prisoners and the scale and methods of death. A universal acceptance of these facts encourages an inspection of the finer detail and an individualistic approach. It could also be argued that there is a fine line between reinforcing demographical and statistical hard facts and subscribing to the demands of dark tourism by 'draping' original features with heaps of hair, spectacles and imagery of corpses. Whilst one may accept that dark tourism is popular and somewhat inevitable across death sites (Stone 2006; Light 2017) and that morbid curiosity is akin to a guided tour of the Tower of London, with the emphasis on torture and execution; this research explores whether this is appropriate for acts of recent atrocity. Events within living memory, such as the Holocaust, are considered so horrific that it is used as an educational platform regarding current societal issues, such as prejudice. This research will touch on various methods of Holocaust dissemination, which inevitably includes Holocaust heritage sites and museums. However, the author does not intend on presenting an in-depth heritage critique, rather a consideration of affective presentation as an inclusion across exhibits. The National Holocaust Centre and Museum, Newark, UK (https://www.holocaust.org.uk/) offers an example of this ethos by offering tactile and interactive exhibitions that are accessible to primary school children. The exhibits focus on the journey and experience of individuals but also achieves a balance between the harsh reality of the Holocaust and the people who experienced this atrocity,

It is fair to suggest that Holocaust presentations across museums and commemorative sites are motivated by and designed to inform and educate audiences. It is also fair to acknowledge that biographies are incorporated across various museum genres regarding

objects and individuals that experienced a historical atrocity. However, we must accept that as a result of the Holocaust a person's life was often ended shortly after a photograph was taken or their name was entered on a transportation document. We can at best, observe a flat black and white image of an individual or official paperwork without anything physical and tactile to encourage a connection. Objects that have been held, treasured and deposited by Holocaust victims are available today to observe and connect with. These objects in isolation are indeed powerful, but this research explores the potential affectiveness of these objects when a biography is attached. The merging of a physically present and tactile object with a biography and the resulting connection with the individual who owned it is exceptional.

This research proposes that observers should be able to draw out an individual from the mass chaos of death and acknowledge some common life experience and emotional connection. This individualistic approach and familiarity can impact audiences in an emotive and empathetic manner as demonstrated by the demand for the Anne Frank diaries. This young girl's writings during her time in hiding have been enhanced by biographies surrounding her, family members and those in hiding with her in Amsterdam. The inclusion of a biography and photographic images captured the imagination of a global audience (Christianson 2015). This simple example has since inspired various dissemination formats and educational programmes including the Anne Frank Trust 'Free To Be' programme which embraces contemporary issues relating to discrimination (https://annefrank.org.uk/free-to-be-resource-hub/). This research explores whether this affect is achievable from other Holocaust material culture and if so, how this can be disseminated for modern audiences and future generations.

The commitment to preservation, recognition of research potential of this material culture and archaeological opportunities at post-war Holocaust sites are critically considered. This includes contradictions concerning opinion, practice and site management regarding the value of surface artefacts, proactive projects and theft. An example of a possible lack of commitment to research is demonstrated by early archaeological projects that stored potential research material for decades, possibly suggesting that it was not valuable and worthy of research (Lewis 2016).

Whilst acknowledging the quantity of Holocaust artefacts currently archived and displayed across various institutions, this research also contributes by considering the

lack of accessible artefact detail. Spatial or structural context for archived artefacts, particularly early Holocaust site excavations and chance finds, is often elusive. A distinction can also be made between archaeologically derived research data and non archaeologically derived data, but also early research and misplaced artefacts (Lewis 2016). Additionally, differing attitudes to what material culture warrants research can differ across sites and countries (Carr 2017). The absence of these details including indicators of accidental deposition or the deliberate concealment of objects can compromise interpretation accuracy. This is problematic for the construction of object biographies.

As a general discussion point, this research also considers the ease of access to internationally dispersed collections, the numerous disjointed archives and a lack of standardisation, including a central database and a best practice ethos. This concern is also expressed by Carr et al (2018) with regards to the lack of a European data base for objects from Holocaust camps. The International Holocaust Remembrance Alliance (IHRA) commitment to ensuring full access to government funded Holocaust archives by May 2020 is welcomed and may assist with all future research. The limitations for research, varying interpretation motivators beyond the archaeologist's control and an accurate 'collective' understanding should be of concern for a variety of disciplines and agencies concerned with the Holocaust. Reviewing previous research highlights numerous gaps in our knowledge, including how to ensure the future accessibility of affective Holocaust research and dissemination material. With the passage of time there is an urgency to expand research by further considering presentation formats that do not rely on surviving witness testimony and the portrayal of the scale of death, whilst still having a lasting impact on observers. This research and the proposed application to Holocaust material culture aims to explore whether object biographies provide a format that is practical, accessible and crucially affective. This approach has the benefit of utilising material that does not require an invasive archaeological methodology, respecting religious guidelines whilst still contributing to the pool of knowledge and future dissemination regarding the Holocaust.

1.2 Scope of research

This research will explore the use of object biographies with Holocaust artefacts and consider the potential for an **a**ffective dissemination format built around these artefacts.

This presents the overarching research question: Does a Holocaust artefact have a greater emotional affect on an audience when accompanied by an object biography?

Three additional supplementary research questions were introduced: Does a particular object type affect an audience more than other object types? Is there a difference between male and female responses to Holocaust artefacts? and; is there a relationship between the age of the participants and emotional response scores and are the emotional response scores statistically different across the three participant age groups?

A clear set of aims and objectives are presented to address the research question/s.

Research aims:

1. To explore whether Holocaust artefacts with an object biography produce a greater emotional response from an audience than artefacts without an object biography.
2. To explore whether affectiveness and a connection with life is a more powerful form of Holocaust dissemination than an effective approach and evidence of death.

Research Objectives:

1. To construct an object biography for a Holocaust artefact (an identification tag) and consider the quality and quantity of detail achievable through this approach, including a portrayal of life.
2. To statistically analyse data from a questionnaire, including this artefact and the object biography, in order to address the research question.
3. To further statistically analyse data from the questionnaire to explore additional questions concerning the affect on participants of different object types and how participant gender and age impacts on emotional responses to Holocaust artefacts.

1.3 Dissertation structure

The emphasis on the importance of archaeological research and the introduction of context is not limited to Holocaust artefacts but includes the archaeological and academic context regarding the role of material culture over time.

Chapter Two: Literature review explores the current state of research across this field, including pivotal publications contextualising the historical role of all material culture across archaeology. Conflict archaeology literature, interpretation and techniques are presented to demonstrate how established approaches can assist with an extended context and Holocaust archaeology fieldwork. This is supported by examples of the complex where, what and why enquiries and interpretations of Holocaust material culture achieved to date that are a reoccurring theme throughout the literature. The concept of affect and effect are explored and the proposed affectiveness of object biographies is introduced as a powerful method for engaging audiences at Holocaust sites. Chapter Two also presents the prominent debates and controversy across the most relevant literature, including a consideration of the 'value' of this material culture. Finally, general challenges concerning restrictions and limitations for research, proactive Holocaust archaeological fieldwork, interpretative motivators and variances are addressed.

To achieve the main research objective an object biography was created and included in a questionnaire exploring the affectiveness of this format. Chapter Three: Methodology presents the procedure for creating an object biography and the design process of the questionnaire. The questionnaire procedure is explained followed by detail regarding the statistical analysis of the questionnaire data and why specific tests were applied in order to answer each research question.

Chapter Four: Results presents the outcome of the initial research. The questionnaire participant demographics and the descriptive statistics are presented followed by the results of the statistical testing applied to address the main research question and the three supplementary questions. The chapter conclusion highlights the key findings and addresses whether the main research hypothesis and the supplementary research questions have been answered.

Chapter Five: Discussion offers an interpretation for the results of the statistical testing, the unexpected results and explores any anomalies. This chapter presents a confirmation that the research aims have been fully addressed but also highlights features in the data that were not anticipated.

The debate surrounding 'value' is considered in more detail. Site access challenges and practical restrictions resulting from tourism, political motivators and a nations

perspective impacts on interpretation and conflicting agendas are also considered. The role of archaeology within Holocaust site research, the importance of context and access to all current archives and a critique of the attempts for a Holocaust 'collective memory' is also discussed.

Chapter Six: Conclusion states the research conclusion in relation to the research hypothesis and the questionnaire exercise. Detail of how this research has contributed to or challenged existing research and theories are summarised. Examples of how this research has supported some of the literature reviewed and additional contributions to this field are presented. Additionally, research contributions including highlighting and expanding on areas of debate, contradictions and challenges are included. The conclusion to this research invites uncomfortable questions regarding why research is restricted and raises concerns as to why obtaining affective evidence of lives is often more problematic and controversial than showcasing death.

CHAPTER TWO: LITERATURE REVIEW

2.1 Chapter overview

This chapter explores literature that provides a foundation for addressing the overarching research question: Does a Holocaust artefact have a greater emotional affect on an audience when accompanied by an object biography? This requires an examination of specific literature that directly relates to the interpretative possibilities of Holocaust material culture and the use of object biographies. As a foundation, this includes literature that demonstrates a pivotal shift in the role of all material culture for interpretation across archaeology with the inclusion of political and social context alongside a consideration of human agency. As Hodder (2012) reminds us; man-made artefacts (objects) rely on human interaction, this includes their birth through creation, their life through use, movement and exchange and their death through loss or disposal. However, this research proposes prolonging an objects' 'life' by retrieving, researching and displaying that object and an associated biography for future generations and education.

Specific literature relating to conflict archaeology is then reviewed to explore the interpretative insights possible from a wider spatial and contextual investigation with the benefits of a multi-disciplinary approach and interpretative flexibility. Literature

pertaining to the contributions of archaeology and our understanding of the Holocaust are then considered. This provides an indication of how material culture from Holocaust sites extends beyond identifying structures by incorporating tactile objects within the tapestry of interpretation. This reoccurring theme of exploring the where, what and why questions identified across the literature are examined to not only demonstrate the depth of previous enquiry, but also to determine the robustness of research and interpretation possibilities. This includes this research and the construction of an object biography.

To explore the theme of affectiveness and effectiveness regarding the material used for Holocaust dissemination, a limited amount of literature was available. However, this did confirm that this research was addressing a possible gap in academic enquiry and encouraged the consideration of the contribution of object biographies for filling this void in current and future dissemination approaches.

Literature surrounding an object biographical approach is then presented to explore the research hypothesis that Holocaust object biographies encourage an affective format for dissemination. Research concerning the limitations of object biographies is introduced to demonstrate the author's awareness regarding remaining objective and avoiding restrictive object categorisation during the research and interpretative process.

Further Holocaust material culture and subsequent debates are demonstrated by literature that explores the subject of the 'value' of this material, preservation dilemmas and the possibility of political motivators at high profile sites.

Finally, literature considering the challenges and restrictions faced for Holocaust archaeology is included. This literature, based on the direct experiences of archaeologists and site dynamics is an issue addressed in the Discussion chapter.

This chapter presents literature that reflects the current state of associated research. An author literature review is provided throughout; however, how this literature relates specifically to the research questions is fully addressed in the Discussion chapter.

2.2 An overview of the historical role and value of material culture in archaeology

This overview of the role of archaeological assemblages and their interpretation provides an insight into how artefacts are now recognised as crucial to a sophisticated understanding of the past. This understanding extends beyond evidence of human

existence, movement and cultures by providing a window into lives and individual experience.

The history of humanity has been extensively explored with the aid of material assemblages across Europe since the 16th century (Hunter 1975) and forms the basis for archaeological investigation and theoretical approaches. The 18th century (Williams 2017) saw the onset of antiquarianism which involved the collection of artefacts as curiosities. Whilst biblical enquiry had motivated early explorations and the interpretation of artefacts, the growing popularity of antiquarianism encouraged some scholars to question these origins and pursue an evolutionary explanation for emerging monuments and material assemblages, raising questions regarding age and function. Processual archaeology sought to apply stringent theories regarding categorising material culture, stratigraphic order and a positivistic methodology, attempting to research and document artefact assemblages whilst proposing 'general laws' for the human past and behaviour in relation to system properties and cultural norms (eg Binford 1962).

Post processual archaeology emerged in the 1980s and strived to evolve from positivistic theories and methods by introducing a humanistic approach with the long-awaited consideration of human agency proposed decades before by Collingwood (1946 cited in Dray 1995). A review of this philosophical theory reveals an early attempt to consider history as an indication of the thoughts and motivators of the main actors and a suggestion of a question and answer principle for archaeology. This principle is reflected throughout this research.

Archaeology now combines a respect and demand for a rigorous scientific and positivistic methodology, encouraged by archaeologists such as Wylie (1985). Access to assemblages and primary sources encourages an academic confidence to dissect this historical documentation and embrace a multi-disciplinary approach. Concerns regarding possible elite bias from textual sources and an interpretative reliance on this historical text have been highlighted by Myers (2008) who proposes that material culture can bridge these gaps in the archaeological record. The inclusion of material culture could be argued to provide objective evidence that requires a considered explanation within a final interpretation. An archaeometrical basis invites an approach that operates alongside disciplines such as anthropology, osteology and history without the early restraints of basic categorisation and a crucial inclusion of the 'motivations of

the main actors' (Collingwood 1946 cited in Dray 1995) resulting in a scientific and a contextual interpretation for excavated material culture.

It is this advanced approach that forms a basic premise of this research; the use of material evidence to enrich an understanding of specific sites and to emphasise the individual biography and experience by examining simple objects from a 20th century European atrocity.

2.3 Historical & contemporary archaeology

Historical archaeology utilises written documentation to research sites and material culture alongside documented detail of the social and political climate of that period. Notable applications of historical archaeological approaches to the First and Second World Wars include Saunders (e.g. 2004) and Moshenska (eg 2013) and Van de Schriek (2020) who provides case studies across a World War Two Netherlands landscape. This research provides a historical foundation and allows the application of a social/ political climate and context, particularly surrounding World War Two and the Holocaust, assisting with the interpretation of artefacts excavated across recognised Holocaust sites. Archaeological evidence can complement historic records or challenge and consider any motivation for possible bias and the integrity of official accounts. An example of this could include archaeological research surrounding the 1876 battle of Little Bighorn and how contemporary research and ballistic data cast doubt on the heroic 'last stand' of General Custer (Reonas 2003).

Holocaust research has the benefit of documentation that was not intended for a general audience, not written from the perspective of a conquering elite and includes large quantities of personal and official correspondence that did not anticipate the fall of the Third Reich and open scrutiny. As such, the type, purpose, content and context of a variety of Holocaust documentation have an authenticity that is difficult to challenge. This example of historical text has exclusive properties that can exclude the concerns of textual bias. This includes documented minutes of Third Reich meetings regarding the Final Solution (Jewish Virtual Library 2021) and papers compiled for the purpose of recording the transportation of people to various concentration/death camps (Claims Conference 2021). Design and commission documents relating to the construction and installation of mass crematorium facilities are also available (Bartlett 2018) including the commission of crematorium ovens (Van Baar and Huisman (2012). Additionally,

witness written and verbal statements are an exclusive resource alongside prisoner's hidden accounts (Peter 2017). Unbiased, non-textual documentation can also be found through covert photography (Berghuis 2019) of the treatment of people and prisoner art (Lyons 2019).

Contemporary archaeology includes research that focuses on the most recent past and applies archaeological approaches and thinking to the contemporary world (Harrison and Schofield 2010). It is the field of contemporary archaeology where we encounter assemblages that include objects we utilise today. Ultimately this assists an informed interpretation and an 'object driven' approach (Herman 1992 cited in Cole 2013) where we are prepared to consider alternative narratives and allow the material culture to guide research and even challenge preliminary interpretations. Contemporary archaeology invites familiar materiality encouraging enquiry beyond what is already available from historical documentation and the consideration of new/different narratives (Sturdy Colls 2017). An example of an object driven approach is demonstrated by the research of Debois (2008 cited in Cole 2013). Desktop research on Ukrainian mass shootings during the Holocaust directed the initial prospection but the recognisable material evidence on site encouraged a series of new questions resulting in contradictions pertaining to the documented scale of death. As Cole (2013) suggests, alternating between historiographical enquiry and material sources, whilst adapting the questions posed demonstrates research flexibility.

2.4 Conflict archaeology: utilising established approaches

The overarching theme for this research falls within the remit of 20th century conflict archaeology. As such, it is important to appreciate the foundations of this discipline and the contribution of conflict archaeology regarding methodologies and the interpretation of material culture relating to war and group violence. This field has provided a foundation for associated and specific disciplines such as Holocaust archaeology which will be introduced in the following section.

Battlefield archaeology is the study of the landscape and material culture associated with spaces of military engagement, including weaponry, tactics and battle formations (Sutherland 2017). Conflict archaeology traditionally examines intergroup and intragroup conflict (Brouwers 2012) with a focus on why and how conflicts ensued.

Modern applications and anthropological approaches to conflict archaeology consider the role of human agency before, during and after conflicts. The inclusion of human agency is pertinent to this research and the purpose and journey of a specific Holocaust artefact with its owner. The popularity of an anthropological approach to conflict archaeology today is in stark contrast to an 'unfashionable' phase spanning three decades from the 1970s. An indication of the subject's growing popularity was demonstrated with The Fields of Conflict conference in Scotland (2000) which formed the foundation of a '*Journal of Conflict Archaeology'* and its opening paper '*Why a Journal of Conflict Archaeology and why now?'* (Pollard and Banks 2005).

Methodologies have been developed and disseminated through the earlier discipline of battlefield archaeology. The archaeological research at Little Bighorn, Montana, USA (Scott et al 1989) introduced a systematic surveying approach with metal detectors and detailed mapping of artefact distribution. Additionally, firearm and ammunition identification research allowed the weapons and soldiers' route to be traced providing an insight into events and possibly behaviours leading up to engagement and surrounding the battlefield. Non invasive surveying techniques including Ground Penetrating Radar (GPR), Resistivity and Light Detection and Ranging (LIDAR) has been applied across battlefields including those connected to World War Two (Van der Schriek and Beex 2017). These techniques have also been deployed at Holocaust sites where intrusive excavation is not permitted and provided crucial spatial and structural detail (eg Sturdy Colls 2015).

Conflict archaeological investigations extend beyond the battlefield and immediate areas of military engagement to consider the ripple effect on surrounding spaces and the impact on local populations (Scott and McFeaters 2011). Alterity, often referred to as 'others' who were involved or effected during conflict but were not directly involved in battle; is an emerging approach within this field and can be applied to widen the scope of research of both past and current conflicts (Gonzáles-Ruibal 2018). Additionally, this approach can assist with repairing the scars of recent conflict by negotiating political, ethical and current heritage dilemmas across places that have experienced war with a priority of rehabilitating the effected landscape and inhabitants (Perring 2009).

2.5 The contribution of Holocaust archaeology. The where, what and why?

Conflict archaeology has encouraged specialised fields of research including that of Holocaust/ atrocity archaeology. Additional Holocaust archaeological research has

provided recognition of other groups of individuals persecuted during the Holocaust such as those of a Roma or Sinti faith and culture. Košir (2019) presents archaeological research concerning three mass execution sites in Slovenia associated with Romani groups as material evidence of violence. This contributes towards recognising those minorities that are under-represented across the historical narrative of the Holocaust. Sturdy Colls (2012) considers all minority groups that were persecuted during the Holocaust with regards to the responsibility of researchers and heritage professionals concerning archaeological remains that should be presented sensitively, allowing for the complexity of beliefs and experiences across these different groups of people.

Where? The geography, site structures and function; interpreting what remains

Holocaust archaeology literature that examines the 'where'- geographical location, specific site structures and layout, the 'what' regarding object type in relation to site features and the 'why' enquiries regarding possible human motivation for the ownership of an object is crucial for a profound understanding of the Holocaust.

When considering 'where' a vast quantity and variety of evidence for the Holocaust is available, however, concentration camps throughout Europe lost large quantities of documentation and physical evidence, including buildings used for extermination due to Nazi attempts at obliterating evidence of atrocity (Gilead et al 2009). Additionally, remote killings such as the early Holocaust mass shootings in Eastern Europe had limited documentation resulting in gaps in the historical narrative (IHRA 2014). In some cases this material culture has been used by Holocaust deniers (often referred to as revisionists to portray academic status) to challenge accounts and dispute this atrocity. This approach largely questions the existence and/or purpose of concentration camp gas chambers, the numbers of dead across Europe during the Holocaust and the actual cause of death, often citing disease. Faurisson 1974 (cited in Levy 2005) for example, challenged archived documentation regarding the Holocaust, the Final Solution and Hitler's knowledge of an extermination policy. In order to seriously consider this type of denial literature and offer a debate, alongside the archaeological evidence achieved to date; a new research project would have to be undertaken.

After the end of World War Two a forensic archaeological approach provided judiciary evidence (Conner 2007 cited in Gilead et al 2009). Following this preliminary work it was widely promoted that nothing remained of Holocaust sites. A general disbelief that

all traces of a European wide mass atrocity had been totally erased encouraged additional archaeological prospection and investigation of the documented sites and structures associated with the Holocaust. This investigation included research detailing the historical timeline, facility locations and the application of the Final Solution and records referencing the scale and methods of execution (Kola 2000). More recently forensic archaeology projects at specific sites such as Treblinka (eg Sturdy Colls 2013, 2015, 2020) have provided a detailed insight into the mechanics of Holocaust sites beyond any initial post-war enquiry.

This research approach has inspired enquiry beyond that of 'where'; the geography, topography, the mechanics and scale death, with a micro-analysis of a variety of material culture discovered at Holocaust sites and questions pertaining to what material culture is available for research and what additional knowledge it could provide. Gilead et al (2009) in '*Excavating Nazi Extermination Centres'* describe archaeology as a discipline for filling gaps with regards to obvious site structures, layout and function. This research also proposes that material culture from the Holocaust can address many voids in our knowledge, often assisting previous 'where' enquiries focused on site and spatial excavations and interpretations.

What and why?

The literature reviewed to examine the general 'where' and 'what remains' regarding Holocaust sites and context has invited enquiry regarding the significance of specific site locations in conjunction with an inspection of object types.

This has been demonstrated by archaeological research that considers and compares the prevalence and type of material culture in relation to a proposed function of a specific space or structure. Research at Sobibór has shown areas surrounding extermination facilities reveals smaller finds (Schute 2017). This includes items that are both practical and sentimental in nature, those objects that could be hidden in the seams of clothing (Landergren-Blomqvist cited in Bergqvist-Ryden 2017) or on/in the body. The suggestion of concealment in clothing may be supported by excavations at Chelmno concentration camp with the identification of small finds alongside human bones in one of the mass graves. This suggests that the victims were clothed when interred and possibly had items concealed on their person. This was not typical for Chelmno that

deployed gassing vans with naked prisoners (Pawlicka-Nowak 2004) and further research would be useful.

The specific location and style of an objects' deposition could also be argued to indicate the intent of a prisoner, including the concealment of items. The act of stashing belongings demonstrated an individual's awareness of imminent death particularly when examined alongside the camp location chosen for concealment. De Cunzo (2006) states that all material culture had a value regardless of how seemingly insignificant and was often used to defy guards for practical benefits and trade value. As such, it is not unlikely that simple practical items would be covertly taken to the gas chambers. Research also suggests that prisoners did inherit items from others (Morrison 2000) and if an individual was aware of their fate before or whilst leaving the barrack area then this would be an opportunity to pass a valuable or practical item on to another who may benefit, if only for a few hours or days. Wiesel (cited in Bergqvist-Ryden 2017) recounts that when a prisoner's father realised he was destined for the crematorium he passed on his inheritance- a simple knife and a spoon, to his son. The alternative may be that these items would be hidden within the barrack space either as an act of resistance and defiance towards camp overseers, or as a capsule of evidence of atrocity.

Regarding smaller objects prevalent within the proximity of the gas chambers at Sobibór (Schute 2017) it is possible that if a prisoner's fate was realised at a late stage and in direct proximity to an area of extermination, it seems logical to suggest small items be discarded, dropped or-during the chaos of undressing, hidden in the immediate 'waiting' space or within a body cavity. An acceptance that they would not return to retrieve possessions, but a fleeting opportunity to deliberately conceal items and a determination to prevent Nazi ownership, can also be argued to demonstrate a final act of rebellion. Bryant et al (2020) also considers acts of stashing to be a form of resistance against institutions and authoritarian systems used for controlling individuals. Alternatively, one may propose that stashing or consuming items displays an element of hope, a belief in survival and an opportunity to later retrieve or expel items of importance. Bergqvist-Ryden (2017) explores the subject of resistance through Ravensbruck camp survivor interviews and the role of both memory and identity (Hurdley cited in Bergqvist-Ryden 2017). This context also includes a consideration of the type of concentration camp. This involves identifying the differences from early Holocaust research between a labour and death camp with a camp that was used

predominantly for immediate execution. A camp that housed prisoners for extended periods such as Auschwitz-Birkenau could provide more opportunities for prisoners to conceal items. Additionally, it may be more likely that they were aware of the extermination process at the camp and planned accordingly.

2.6 Affective versus effective in the Holocaust dissemination arena

As previously mentioned, affective can be defined as 'to elicit an emotional response to material, such a response that evokes a physical or psychological reaction' encouraging empathy and emotion. In contrast to effective which is defined as; 'information or material that is successful in producing a desired or intended result'. (https://dictionary.cambridge.org/).

This research not only poses relevant questions required to construct a precise object biography but is committed to exploring the potential of Holocaust object biographies as an affective style of presentation that can be incorporated across various dissemination platforms. Auschwitz-Birkenau is referred to throughout this research as an example of possibly the most well recognised Holocaust site. This former Holocaust concentration camp has a visitor age guide of fourteen years (Auschwitz 1) thus excluding young audiences, based on the graphic and no doubt effective and 'shocking' material exhibited. There is no permanent facility for young learning and no opportunity for historical empathy or affective experience. Savenije' research (2017) explored students' emotional engagement and affective responses at the Museum in The Hague, Netherlands. By exploring the learning sessions about World War Two and student interest and empathy it was concluded that a personal connection with the people and objects encouraged empathy and knowledge acquisition. Similar to this research; war era and Holocaust objects, their biography and any emotional responses were examined and the research found that objects did encourage further enquiry. This resulted in students been interested enough to learn about the story behind the artefact. This is supported by Popescu (2020) research which also surveyed students and their response to material culture connected to the Holocaust and concluded that a connection is more powerful than shock.

Hansen-Glucklich (2014) highlights how overexposure to specific imagery can numb the observer ultimately lessening the overall impact and the affect of exhibit material. This concern is also further addressed in the Discussion chapter. It is possible for

museum exhibitions to create a learning environment that encourages empathy and an affective experience (Gregory and Witcomb 2007; McRainey and Russick 2010). This is expanded on in the Discussion chapter and presentation proposals are presented in Appendix 3.

Smith and Campbell (2015; 3) refer to 'the elephant in the room' with regards to a lack of willingness of various dissemination bodies to address the emotions connected with heritage experience. However, in sharp contrast Lowenthal (cited in Smith and Campbell 2015; 7) argues that 'too much empathy' and a focus on education at museum and heritage sites compromises and dictates the dissemination of historical facts. Hansen-Glucklich (2014) also addresses the issue regarding the ethos behind displays at Yad Vashem Museum Israel and the Jewish Museum Berlin stating that displays can be used to enrich the narratives of victims' lives without further objectifying and dehumanising. Stevens, in '*Nothing More Than Feelings'* (2009) cites the Jewish Museum in Berlin when expressing similar concerns regarding visitor experience pertaining to the lack of original material and the inclusion of varied unrelated stimuli. Stevens argues that this approach undermines both contemplation and introspection and that the overwhelming experience is that of a physiological and not necessarily psychological or educational. This approach could quite literally fall within the category of 'effective heritage' and whilst visitor numbers are impressive; one must question whether this represents the immediate and long-term affect on those visitors. Author personal correspondence with the museum curators for this and previous research was clear in their response regarding the design remit not to include Holocaust artefacts. Sadly, this authentic material may have been deemed too shabby to be incorporated into such a high-tech display of Jewish history and Holocaust interpretation.

Research and literature have guided the author and invited an exploration of available, appropriate and achievable technology regarding Holocaust dissemination. At no point did this exclude the benefit of material culture and the possibility of replacement with light and sound effects. This research embraces technological advancements as an aid for dissemination but does not propose these mediums as a replacement for genuine material. These points are considered further in the Discussion chapter and proposals are presented in Appendix 3.

2.7 The contribution of object biographies for dissemination and further Holocaust enquiry

‘The archaeologist is digging up, not things, but people’ **(**Wheeler, M. 1954 pp 5)

The exclusive interpretive qualities of Holocaust victim artefacts have encouraged this original research alongside the prospect of Holocaust object biographies as a format for affective dissemination. This demonstrates additional growth across the discipline of Holocaust archaeology and a desire to propose future approaches for Holocaust engagement. As proposed by Tyng et al (2017) it is also a premise of this research that affective material and presentation that evokes emotion resonates with an audience well beyond a site visit. Rooted in social anthropology, object biographies were first introduced in 1986 by Kopytoff who compared the similarity of the birth, life and death of an object to that of a person providing an object chronicle. As with this research, Kopytoff applied an object questioning methodology (Joy 2009). Peers (1999) proposes that tactile objects gather a distinct history as they move and are exchanged. Gillings and Pollard (1999, cited in Joy 2009) suggest that structures accumulate a biography as interpretations are re-visited over time. It is important to distinguish between biography and narrative at this stage. The biographical approach with reference to this research, examines the relationship between Holocaust prisoners and specific objects before and during their war time experience. The narrational element can be applied for examining objects where no, or limited information about the artefact is available, inviting some degree of enquiry and caution (Herman 2009 cited in Schofield et al 2019). This research has highlighted certain aspects where biography enquiry is limited.

Practical human agency is also examined with regards to the material sourcing, initial manufacturing and the evidence of use frequency through use/wear analysis, often in relation to prehistoric studies (Dobres 1995). However, material and manufacture detail are a valuable consideration for this contemporary research as it is feasible that these specifics can be cautiously investigated providing an indication of an item’s origin. In addition, Bradley (1998) argues that a use-life analysis should consider that an object can be in use long after its original purpose expires. Adaptations are a further example of how an objects’ history may be transformed and again are significant to the main body of this research. An example of this type is an aluminium strip fashioned into a small spoon and discovered at Sachsenhausen (Theune 2018). This is addressed with a

life history approach to creating an object biography which incorporates these possible variations across an objects' life- time (Schiffer 2000).

Buchli and Lucas (2001) state that material culture is not passive and reflective but can engage with us in unexpected ways demonstrating its potency. Diindjian (2001) applies a cognitive theoretical approach and echoes this opinion when discussing artefact analysis and the formulation of the process, describing material culture as a limitless source of information. This contrasts with early perceptions of hand -held artefacts and a belief that these items simply provided functional information and decorative indications of hierarchy within societies and contributing only 'obvious' detail. This 'obvious' foundation however is crucial when constructing a workbench for this research. For instance; hierarchical evidence is still vital for interpretation as Myers (2007) highlights regarding those highest in the camp socio-economic hierarchy who had exclusive possessions that remain evident within the archaeological record, including luxury items. An object biographical approach now embraces this original basic detail as a platform for exploring the relationship between individuals and objects (Gosden and Marshall 1999).

Examining the 'where, what and why' explores motivators for acquisition, movement across locations, usage-including adaptations, any transference of ownership, the locations and possible reasons for disposal. This assists in both constructing a biography and further enquiry into the lives of Holocaust victims.

2.8 A consideration of the limitations of object biographies

For the creation of an object biography to assist with exploring affectiveness and the main research hypothesis, the author was compelled to consider literature highlighting any limitations for an object biographical construction and approach. This was important with reference to the following chapter and a suitable research methodology.

Subjective interpretation, particularly for any narrative applications can be problematic. However, when embracing a multi-disciplinary approach it is increasingly possible to seek guidance and theoretical clarification from science-based disciplines in order to support or adapt any interpretation. This collaboration is demonstrated by Schofield et al (2019) and the methodology deployed to examine Galapagos marine pollution. Fourier Transformed Infrared Spectroscopy (FTIS) allows clarification of composition

and degradation of the objects under a narrative construction and demonstrates how effective collaboration can be and promotes a willingness to be flexible in a final interpretation. An acceptance of allowing the artefact and its innate properties to dictate the questions posed and a flexibility regarding answers is paramount.

A further limitation identified throughout the literature is a temptation to search for an underlying grammar, or a set of rules (Tilley 2001). A structural analytical approach to material culture fails on many levels but is particularly inadequate when one considers the individual during the process of researching an object biography. An object biography should focus on the subject against a context with the express purpose of highlighting exceptional or unusual features (Dannehl 2009). A process of strict self-evaluation is crucial during both the research procedure and the interpretation of results. This awareness also applies to avoiding simple description as opposed to thorough analysis and an informed interpretation (Nanouschka 2014).

An additional consideration, especially when imagining an object biographical exhibit, is that of either limiting the quantity of textual detail on display or to create alternative formats including artistic responses (Sturdy Colls 2016) that allow for transference of necessary information and detail. This can be achieved through text and imagery by embracing new technologies and techniques allowing the visitor to engage individually to suit their own level of enquiry and specific interests. Recommendations for this proposal are considered in the Discussion chapter and presented in Appendix 3.

2.9 The question of 'value' and further debate

It is crucial to acknowledge both the insights and the debates that Holocaust archaeological research and literature has provided to the detailed understanding of Holocaust sites. Whilst this research is concerned with the interpretative role of a Holocaust object, its biography and its relation to the individual, it is vital to consider the literature surrounding how we perceive, treat and 'value' this material.

Crook (2019) highlights the vast subject of value across archaeology and social science disciplines and considers changing values assigned to objects through exchange, movement and modification. Crook proposes that we should not assume how we perceive and value an item today reflects its original role and importance.

Similarly, this approach, when applied to Holocaust material culture, can be considered from several approaches depending on which type of value is been explored. A ‘change in value’ (Carr 2017) allows an inspection of original ownership, the object’s journey and the post-war significance of a Holocaust object. The original value to a prisoner can be further dissected when considering whether an item was crucial for survival, such a bowl for food or represented religious or sentimental value. Without a simple bowl a prisoner would not receive the basic daily food rations resulting in pain and death from starvation (Wiesel cited in Bergvist-Ryden 2017). With regards to sentimental value Ryden (cited in Carr 2018) introduces post-war interviews with survivors who describe certain objects as providing emotional support and hope. The analysis of some identification tags reveals attempts at personalisation and decoration which suggests a desire to maintain an identity and a psychological resilience (Hausmair cited in Carr 2018).

When considering an objects’ change in value across its lifetime, from creation to owner attachment and use, to the value assigned by others after it has been discarded, it is clear that objects associated with victims of the Holocaust can have a wide and fluid narrative. Carr (2017) illustrates the various routes prisoner artefacts may take when considering the ‘change in value’ of these items over time. From original prisoner ownership and the specific values mentioned, to deposition after liberation followed by a critical stage of either (i) recovery or (ii) remaining in the archaeological record. This research introduces concern regarding the treatment of recovered material culture when considering the stored and ignored boxes of sixteen thousand artefacts retrieved in 1967 from Auschwitz-Birkenau which until recently lay unrecorded, unvalued and not researched (Lewis 2016). The approaches and policies of site management can be confusing and attract questions regarding value and research opportunities. This research also proposes an additional category (iii) of; damage and deterioration whilst ‘remaining in the archaeological record’ which is introduced later with reference to surface artefacts and research value.

Additionally, Carr (2017) questions the monetary value of Holocaust material culture in relation to the various concentration camps’ profiles. A high profile site such as Auschwitz-Birkenau attracts illegal collection and re-sale and ironically has a generous scattering of such items. In contrast to lesser known sites for instance Sobibór and Belzec, where prisoner artefacts have largely been mapped, lifted, researched and

archived even though the object monetary value may be less. As Carr (2017) highlights; the difference in laws regarding the removal of Holocaust artefacts across different countries and sites confuses the issue further and it could be argued that this increases demand and consequently the monetary value of items from specific sites. If one is to accept that monetary value is a motivator for theft and emotive or historical value is of no interest to the thief, then well known and accessible sites within the public domain are an attractive target. In short, a prisoner locket recovered from Auschwitz-Birkenau will attract more bids on an auction site than a prisoner locket from a lesser known camp (Nicol and Murphy 2013).

With regards to the historical knowledge value, Whitely (2002) proposes that objects can hold value because of their biographies. This compliments the theoretical basis for this research. Referencing the appeal and historical value of tactile material culture Fletcher (2002) claims that 'material possesses inertia' continuing its influence after events have passed and have been forgotten. These points are further considered in the Discussion chapter, in relation to this research. The value of Holocaust material culture as exhibitions can also encourage controversy. Young's 1993 research supports this research regarding an approach based on presenting 'heaped' artefacts and a focus on the scale of destruction rather than the individual immersed in the statistics. This research observation in 1993 also demonstrates how specific concerns have been highlighted previously and the fact that this is still been addressed in 2021 should indicate little progression. The revenue achieved from the promise of 'shock' exhibits may well be impressive but can we truly suggest that this experience educates and promotes a collective empathy and understanding? Popescu (2020) explored the numerous techniques used across exhibits at The Imperial War Museum's Holocaust Exhibition, London and conducted a survey of student emotional and cognitive responses. One of the research recommendations reads; *'to provide images and texts which are visually compelling whose effect on the viewer is not limited to shock value but goes further, provoking deeper consideration of the content and how to respond to it'*. The research findings conclude that exhibition design dictates the effectiveness of knowledge acquisition and that exhibits are an active, not passive agent for the meaningful experience of museum visitors. This compliments the premise of this research with regards to considering the content and presentation of Holocaust exhibits

beyond an effective and informative tool, but also a platform for an affective understanding.

Previous personal communication with the Berlin Holocaust Memorial Museum curator (2016) highlighted that the design ethos omitted artefacts across the sleek and high-tech exhibits. This is further explored in Chapter Five: Discussion with a focus on this research enquiry concerning shock and effective or affective presentation.

2.10 Further challenges

At first glance Holocaust archaeology may seem an open arena for research; however literature identifies common debates and challenges surrounding this field. Various restrictions at Holocaust sites are an initial hurdle and as such desktop research often relies on previous excavation reports produced from immediate post-war research. However, it can be a huge source of frustration and confusion during independent research that initial post-war archaeology appears elusive or lacking in crucial detail. This contrasts with the surveying and recording methodology demonstrated by recent Holocaust archaeology utilising traditional manual and more the recent technologies such as digital mapping (e.g Bosma 2016; Sturdy Colls 2016). In addition to the challenges of accessing excavation detail it can be difficult to obtain specific detail regarding those artefacts that have been excavated and archived. Many specialists within this discipline highlight the constraints of site politics and the client project brief; usually reactive planning where research opportunities are missed (Eickhoff 2016). This is reiterated by Sturdy Colls (2012) who proposes a proactive approach rather than archaeologists simply responding to development works. An example of Holocaust site proactive research that did not operate under such framework constraints is that of Ybenheer (Bosma 2016). Whilst constraints dictated the quantity of artefact collection, this non-invasive research did digitally map and photographically document artefact distribution.

A further practical challenge includes topography changes that could impact on interpretations, such as Sobibór where Nazi reforestation in an attempt to disguise site purpose confuses the authentic tree line. This is an example of how access to historical documentation and imagery can assist in structural and spatial considerations required to construct a well-considered object biography. Additionally, complex Holocaust sites include those that utilised different areas for incarcerating and executing victims but

then disposed of remains in surrounding forests, for example; Chelmno Holocaust site. These complexity issues also apply to sites of multiple uses before and after the Holocaust, for example Ybenheer (Schute 2017) where the landscape can be confused and artefact context or dating problematic.

Young (1994) emphasises the differences across Holocaust dissemination styles and the concept of interpretations that are nation specific. This observation is supported by Van de Laarse (2019) who highlights the differing Holocaust narratives across nations. This is problematic when archaeology strives for objective interpretation at the point of excavation but there is then the possibility that interpretations and dissemination for visitors are adapted to suit a nation's agenda. These are key points in considering whether a 'collective' narrative of Holocaust events is achievable when considering the various formats and political motivations that steer Holocaust exhibits and ultimately the many versions that audiences are exposed to. Hansen-Glucklich (2014) reminds us of the responsibility of Holocaust museums regarding how observers perceive and 'remember' the Holocaust during and after a museum visit. Stier (cited in Hansen-Glucklich 2014) shares this opinion and proposes that memory is shaped by the way information is communicated.

However, the author challenges the overall premise of 'memory' associated with the Holocaust when considering that the vast majority of us that were not present and do not have the ability to remember events that were not experienced. As such, the Discussion chapter will briefly explore the pressure and challenge of constructing a universal 'collective memory' for the Holocaust and consider an alternative of a 'collective understanding' based on the vast and varied multi-disciplinary research contributions. Savenije (2017) introduces the concept of 'historical empathy' to explore the relationship between context, affect and learning in a museum setting. This does appear a more realistic approach with regards to the author concerns regarding 'memory'. Emotional engagement with historical actors and empathy can be achieved and in turn enhance a historical understanding through a connection with the past (Marcus and Stoddard and Woodward 2012; Spalding 2012). This connection could be argued to be more achievable than a 'memory' of events that were not experienced. On some level a variety of Holocaust biographies will resonate with each observer. This could be in relation to their personal demographics; being Jewish, having a child of the same age as a specific biography created from an object discovered at a Holocaust site

or being elderly or disabled. This empathy invites an emotional connection with historical individuals we will never meet, but can identify with. It has to be considered that a 'collective empathy or understanding' is more achievable with the introduction of object biographies that introduce the individual without agenda or political bias.

In short, this 'collective memory' will always be flawed when considering the various motivations, interpretations and methods of dissemination. This literature has highlighted a theme that will be further addressed in the Discussion chapter.

2.11 Literature review conclusion

Human traces, evident through material culture provide invaluable information regarding migration, manufacture, trade, belief systems and conflicts across all periods, in short; a narrative of human lives and deaths. It is crucial to acknowledge that archaeological evidence today is not simply recorded with regards to site location and dimensions but that the smallest of artefacts can be investigated to determine origin, usage and significance within a context as Myers (2008) suggests; a bridge, almost directing our understanding.

This literature review has considered the historical roots and the evolution of attitudes to artefacts from an aesthetic approach towards literature exploring the inherent value of material culture. Reoccurring themes across the literature have been highlighted including the interpretative contribution of Holocaust material culture to date and the potential for further research and insights. The appreciation of the context and demographics of the Holocaust and crucially the consideration of human agency are also prevalent themes.

Whilst the literature has supported the variety and appreciation of the many facets of interpretation achievable from Holocaust material culture, there is limited research that addresses the differences in the effective and affective dissemination resulting from this material. Specific literature acknowledges the benefits of affective material that encourages an individualistic insight into the Holocaust, but research fails to consider the current ethos across high profile Holocaust dissemination platforms. If we are to accept that interpreted Holocaust material culture does provide an affective bridge between the Holocaust and an individual, including a modern audience, then surely we

need to address the prevalence of effective ‘shock’ tactics deployed by high profile sites internationally.

Common debates have been identified across the literature including the different definitions of and approaches to the ‘value’ of this material culture; the monetary value, the historical contribution and value to knowledge, the opinion and crucially the commitment regarding the ‘research value’ including the collection and preservation of this material. The monetary value debate is a consideration resulting from a subtle Holocaust site hierarchy but also the onsite contradictions regarding the proposed sacred ‘value’ of artefacts that are dispersed across these Holocaust sites. Debates regarding possible differences concerning the ‘historical value’ are also varied and result in differing approaches, opinion and concerns regarding research and dissemination potential.

The literature reviewed has highlighted the challenges faced for Holocaust research including basic access to early site reports, to the controversy surrounding archaeology at Holocaust sites. Proactive archaeology is almost impossible and reactive/commissioned archaeological project literature has emphasised project restrictions and the lack of archaeologist input permitted beyond the excavation. Whether the demand for a visitor centre and planning regulations stipulating an archaeological inspection results in simply paying ‘lip service’ to this discipline is addressed in the Discussion chapter, alongside the challenges of nation specific interpretation and dissemination. The challenge of and opinion surrounding a ‘collective memory’ of the Holocaust as a realistic concept and whether it is truly achievable has also been introduced.

The following chapter presents the methodology and how the research was approached with regards to desktop research, constructing an object biography and designing a questionnaire to measure the affectiveness of Holocaust object biographies. This chapter also describes the data preparation and explains the statistical testing procedure alongside the reasoning for the specific tests applied through SPSS.

CHAPTER THREE: METHODOLOGY

This chapter will provide an explanation of the aims and objectives in relation to the research methodologies selected. The initial desktop research methods are explained, followed by the method used for creating an object biography. The questionnaire design and procedure are introduced and explained. This is followed by the specifics of the data analysis. This includes why certain statistical tests were applied to address different research enquiries. Finally, a chapter conclusion is provided.

3.1 Research aims in relation to the methodology

The main research question is; Does a Holocaust artefact have a greater emotional affect on an audience when accompanied by an object biography?

A clear set of aims and objectives were presented to address this question.

- To explore whether Holocaust artefacts with an object biography produce a greater emotional response from an audience than artefacts without an object biography.
  The methodology (questionnaire) was chosen as an appropriate measure of participant responses to objects with and without an object biography.
- To explore whether affectiveness and a connection with life is a more powerful form of Holocaust dissemination than an **e**ffective approach. **The questionnaire methodology allowed an insight into whether participant responses were contusive with an empathetic reaction to object personalisation. This necessarily impacts on the contribution of effective exhibits.**

Research Objectives in relation to the methodology**:**

- To construct of an object biography for a Holocaust artefact (an identification tag) and consider the quality and quantity of detail achievable through this approach, including a portrayal or life. **This allowed an inclusion in the questionnaire and demonstrated the extended detail available from one object that could be further accessed by a museum visitor.**
- To statistically analyse data from a questionnaire, including this artefact and the object biography in order to address the research question. **This allowed a quantifiable measure of the questionnaire data in order to objectively answer the main research question**.

- To statistically analyse data from the questionnaire to explore additional research questions concerning the affect on participants of different object types and how participant gender and age impacts on emotional responses to Holocaust artefacts. **This provided a quantifiable measure of the questionnaire data in order to objectively answer the supplementary research questions**.

In order to address the main research question the design and methodology chosen aimed to explore the affectiveness of object biographies created from Holocaust prisoner artefacts by quantifying the questionnaire participant emotional responses**.**

In addition, highlighting different object types across the questionnaire allowed enquiry regarding the affect of a particular type of object, whether an object biography was included and how this may have impacted participant emotional responses.

This was evaluated through appropriate statistical testing but also the compilation of an easy reference and comparison table which presents these variables alongside the rank and mean scores (Table 5 Pg 60) This is supported by a post-hoc Tukey test that allows specific comparisons regarding participant responses (Appendix 2: Pg 139)

Addressing this supplementary research question inspired further enquiry regarding any gender differences across questionnaire participant responses. This included exploring the average emotional response scores for male and female questionnaire participants.

A further research question was posed regarding participant age groups and any relationship or differences in emotional responses.

These questions were posed in order to extract specific information from the questionnaire data. Addressing these questions contributes to an understanding of the role of object biographies at Holocaust sites but also whether certain object types are more affective on an audience than some other object types. Exploring gender and age differences regarding the affect of Holocaust material provides an insight into how affective dissemination methods could be achieved or enhanced.

3.2 Rationale: an explanation of the research aim

As identified in the Literature review Chapter Two; material culture underpins the discipline of archaeology and the role of artefacts has evolved to assist in complex

interpretations. Previous research concerning the Holocaust has included reviewing documentation, eye- witness testimony, non invasive surveys and archaeological excavations. This has provided a clear understanding and a foundation regarding probable mass graves and spatial and structural features. This results in the possibility of precise excavations targeting material culture whilst being conscious of Jewish laws surrounding death, burial and disinterment (Geller 1996).

Following the Chapter Two: Literature review regarding the meaning of 'value' for Holocaust material culture this object centred research applied a questionnaire and an emotional scoring system as a measure of affectiveness for observers of Holocaust artefacts.

3.3 The initial desktop research methods

The initial desktop research included exploring the historical role of material culture across the discipline of archaeology. Examining the definitions and distinctions between the terms affective and effective and how they relate to the dissemination of Holocaust material was vital. General Holocaust research including reviewing previous Holocaust archaeological project results and interpretations assisted in understanding the potential for presenting a more intimate portrayal of individuals.

Extensive reading required for the previous literature review chapter provided a solid academic overview of previous Holocaust site research, methodologies deployed, limitations and restrictions for Holocaust archaeology including gaps within this field of research. This review included enquiry regarding Holocaust material culture and how its role and its interpretative potential has evolved. Additional academic preparation was undertaken to clarify the events of the Holocaust and refresh existing knowledge through the Open University with a short course: The Holocaust (Open University: Open Learn).

3.4 The method for creating an object biography

General desktop research assisted in the clarification of the research aims and objectives and directed the author to specific reading material concerning object biography theory, formats and examples across a range of material culture. A short Open University course 'Looking at, Describing and Identifying Objects' (Open University: Open Learn) was also completed.

The Sobibór site, Poland was chosen as a case study site for the purposes of selecting a Holocaust artefact for the application of an object biography**.**

This Holocaust site was chosen because of the range of, including more recent research, across various disciplines including archaeology (Gilead, Haimi and Mazurek 2010; Schute 2018). The author was confident that an artefact chosen from this site would have valuable detail attached and be suitable for the construction of an object biography. The book '*Recovered from the Ashes'* (Kranz 2018) provided a selection of objects discovered at Sobibór from which an identification tag was selected. This identification tag was selected as it was an example of an artefact that had some excavation context which assisted in the object biography construction. Additionally, the ID tag clearly displayed a name and address and the author was confident that a biography was possible. As the site of the ID tag deposition it was necessary to examine the role and practical mechanics of Sobibór the spatial and structural detail and what this detail contributes to our understanding of the final hours of the owner of the identification tag. The full Sobibór case study is included in Appendix 1.

To assist with the creation of a full object biography an artefact analysis worksheet was designed.

SITE: OBJECT NAME/NO:

EXCAVATION LOCATION: Include any immediate structural or spatial detail. Attach site maps/GPS detail as available.

DIMENSIONS: Include artefact measurements and description or sketch of shape.

MATERIAL: Include the composition of the artefact, e.g. wood, metal.

DECORATIVE DETAIL: Include colour and texture. Describe any text, images/engravings.

SPECIAL QUALITIES: Describe features such as moving parts, evidence of adaptations, use wear, indicators of origin or manufacture.

OBJECT FUNCTION: Include the possible primary function of the artefact. Describe any indicators of use by a specific gender, profession or age group.

OBJECT ROLE: Consider how this artefact featured in the owner's life. Was it sentimental, practical or both?

COMPARISONS: Include images/references for possible modern day equivalents for research comparisons.

The artefact analysis worksheet was a method devised to provide a standardised set of questions and observations about an object. This ensured that key features of an object of interest were recorded. Additionally, a standardised set of questions and key observations allows this process to be repeated concisely for other objects and further research. The completed artefact analysis worksheet for the ID tag is included in Appendix 2.

The full object biography is presented in the Results chapter and additional material is available in Appendix 3. A short version of this object biography was compiled to be included with an image of the ID tag in the questionnaire. The full questionnaire is presented in Appendix 1.

3.5 Questionnaire design and procedure

A questionnaire allowed a quantifiable format for measuring the emotional responses and affect of Holocaust artefacts on participants. This allowed a statistical examination of any differences and/or correlations across the data. Further advantages of a questionnaire for this research include the possibility and ease of presenting photographic images and text for the participant to view and read at their own pace. This method was favoured for this reason along with the benefit of removing experimenter bias, often problematic in an interview situation (Holman et al 2015). A questionnaire is also beneficial with regards to cost and the prospect of obtaining a representative and an acceptable sample number through online platforms.

Questionnaire design

Following a preliminary questionnaire design ethics approval was obtained from the University of York. The questionnaire was created using Google Documents/ Forms.

The participant information and consent form clearly informed the participants regarding the Holocaust theme of the questionnaire, as such; all participants were aware of the subject matter. In order to address the research hypothesis it was necessary to

design a questionnaire that included images (10) of Holocaust objects and include a short biographical text for four of the images. The remaining six images were accompanied by a simple, factual sentence, for example ‘A gold and diamond ring discovered at Auschwitz-Birkenau’. These ten images were chosen as they provided a good cross section of different object types. The four items chosen for presenting on the questionnaire with a brief object biography were selected as there was enough detail available from this and previous research to provide a brief biography for the participants. The identification tag was included and was one of the four images accompanied by a condensed object biographical text.

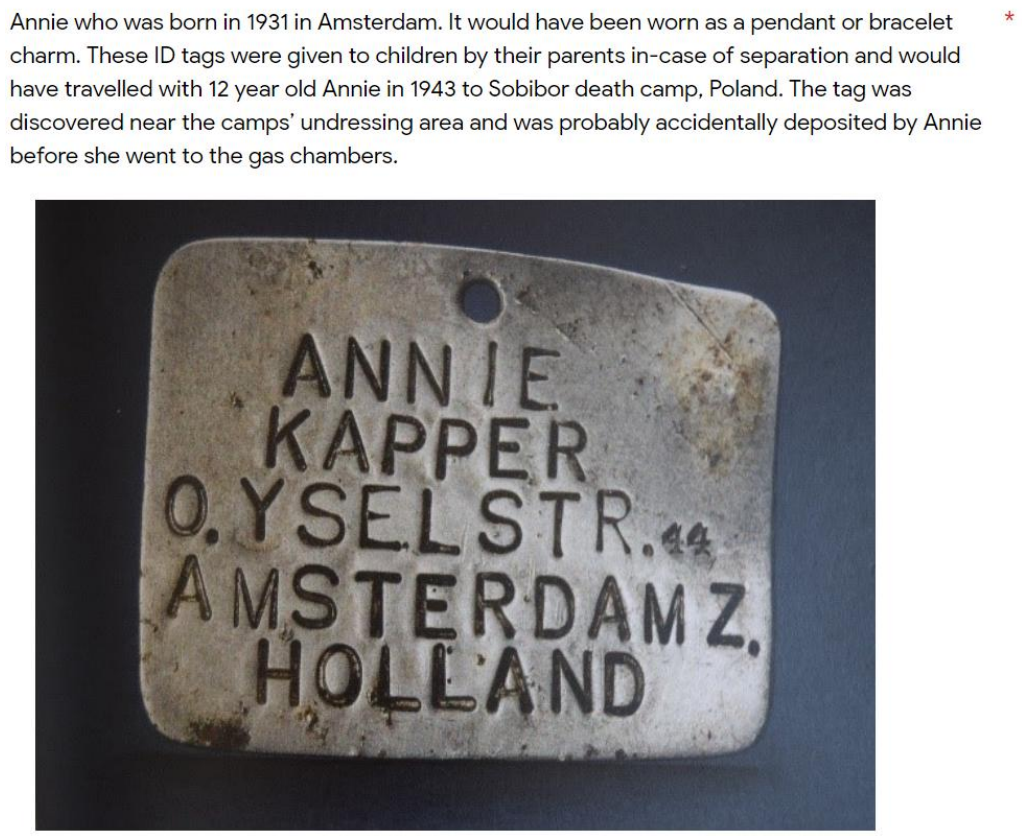


Figure 1: The identification tag belonging to Annie Kapper and the condensed biography presented in the questionnaire. Figure source: Kranz (2018) *‘Recovered from the Ashes’*.

The remaining six object images and detail were sourced from: Kranz (2018) ‘*Recovered from the Ashes’.* Panstwowe Museum of Lublin and the United States Holocaust Memorial Museum (https://collections.ushmm.org)

It was necessary to consider participant fatigue regarding textual information and create a realistic comparison with the amount of text hierarchy (Trench 2013) practical across museum exhibits. This resulted in compiling short biographies (with a maximum of fifty words) to accompany the four images selected to present with an object biography.

The full questionnaire is presented in Appendix 1.

To accompany each image (with and without biographical text) the same seven emotional descriptive words were presented for the participant to tick as required. Participants could tick as many of the words provided to indicate any emotions experienced when viewing each image/text.

Guidance for these emotional descriptive words was taken from *'The Discrete Emotions Questionnaire Principles'* (Harmon-Jones 2016) and seven emotional descriptive words were selected. In line with previous chapter concerns regarding the Holocaust and dark tourism presentation formats it was important to provide response options that indicated an affective reaction and not an effective response such as 'shock'. The words provided were: Neutral emotional response, Curiosity, Sadness, Empathy, Disgust, Shame and Anger. The option of 'Neutral Emotional Response' was included to indicate a participant had 'no interest/no feelings either way' and was a crucial addition to isolate those items, with and without object biography that had a minimal affect. The option of Curiosity was included to indicate a participant was 'interested in the object and would accept additional detail'. The other five words were chosen as they were appropriate when considering the subject material and indicate a more profound emotional reaction than that of the noun 'shock' which could be considered to be a sudden, short term startle response. Positive emotional response words, for example; Happy or Content were not included as response options.

Questionnaire procedure

The questionnaire was distributed in November 2019 and accepted responses until January 2020. The questionnaire was distributed across various social media networks, through personal email and distributed across numerous departments at the University of York.

Preparing the data

The raw data was examined and a colour code for each object type was applied to assist with statistical testing and interpretation (See Methodology chapter).

The raw data generated from the participants' questionnaire responses was accessed on a Google drive spreadsheet. This presented the responses of all 121 participants to each of the ten images. This included acknowledgement that they agreed to participate, their age range, gender and which of the seven response words they ticked for each image. One participant was removed from the analysis as they had declined to state a male or female gender by responding with 'prefer not to say'. Whilst this may be controversial, it is also worth acknowledging that the same participant responded with 'neutral emotional response' across the entire questionnaire. As such, a decision had to made regarding the whether the engagement was genuine. As one of the enquiries relates to gender differences across participant responses; male and female data is an independent variable. This resulted in a total of 120 participants.

A scoring system was devised based on the emotional response words ticked:

Neutral emotional response = 0

Curiosity = 0

Sadness, Disgust, Empathy, Anger, Shame = All score 1 each.

This provided a total 'emotional response' score for each image from all 120 participants.

Example: For image 1: a participant responded with Curiosity, Shame, and Anger. Score=2

This scoring system ensured that the more profound emotions, such as anger would result in an individual participant emotional response score. However, the inclusion of Neutral emotional response as an option allowed those images that produced limited emotional affect to be isolated and examined regarding 'why does this specific object produce a neutral emotional response'?

In addition, those objects that had a high curiosity response could be isolated to determine which objects participants were generally interested in and whether this curiosity corresponded with a lack of object biographical text.

The questionnaire item number was attached to each image data set along with an indication of whether that image had an object biography as accompanying text or basic textual detail. The object type colour code devised was added to assist with interpretation and further analysis.

3.6 Statistical testing for the main research question

To generate descriptive statistics the raw data was entered into SPSS and analysed. The descriptive statistics provide the demographic characteristics and the average (mean) and total scores of the emotional responses that are associated with each of the artefact images presented to the participants.

The descriptive statistics are presented in the Results chapter. Additional reference tables have been included for clarity.

Non parametric statistical testing was necessary throughout as participant numbers for all research questions were not equal.

In order to assess any significant **differences** between emotional response scores for items WITH an object biography and emotional response scores for items WITHOUT an object biography, an **ANOVA** (analysis of variance) statistical test was selected.

ANOVA is a statistical analysis that tests whether the outcomes from one group differ significantly from the other. For this research, differences in the average emotional response score among the groups are crucial in demonstrating how an audience responds emotionally. The ANOVA test results for emotional score differences are presented in the Results chapter.

Additionally, a Tukey post hoc test was undertaken. The Tukey post hoc test identifies the extent of any differences and the specific variations in the average emotional response scores for each of the ten images. The Tukey test is beneficial as it makes a pairwise comparison between the data groups whilst ensuring the minimisation of the probability of errors. As such, this approach is appropriate in the analysis allowing the emotional responses to one questionnaire image to be compared to the others.

The initial Tukey results table showing the comparison between the ID tag (WITH an object biography created for this research) and the other nine questionnaire items is presented in the Results chapter. The additional comparison tables are presented in Appendix 2.

Statistical testing for the supplementary research questions

In order to address the supplementary data question regarding object type and a **correlation** with participant emotional response a **Pearson** correlation statistical test was selected. This test determines whether there is a linear relationship between the variables in a sample population. Pearson correlation coefficient, r, is crucial to establish whether any linear relationship is strong enough to state an association between the variables that are being investigated.

Similarly, for the initial part of the gender question and examining any **correlation** with gender and emotional response scores a **Pearson** correlation statistical test was selected. The correlation coefficients among the key variables, object type, gender and questionnaire participant age groups are presented in the Results chapter.

This research question also sought to explore any **differences** in the data regarding participant gender and emotional response scores. As such, an **independent t-test** was also applied. An independent t-test is an inferential statistical test that can be used to investigate if there is a statistical difference in the means of two unrelated groups. The t-test is therefore essential in the determination of the differences in the emotional responses in male and female participants. The first part of the t-test results is the group statistics presenting the mean emotional response scores that are associated with the each gender as well as the standard deviation and standard error mean. The group statistics are presented in the Results chapter.

The Levene's Equality of Variances test is part of the independent t-test and is useful in determining whether the differences in the variances of the groups being compared are statistically significant.

For addressing the questions regarding **age** the mean emotional responses for each of the age groups was calculated. To address the first part of the question regarding age a **Pearson** correlation analysis was then undertaken. This determines if there is a statistically significant **correlation** between age and emotional response.

The second part of this question concerns any differences across the three age groups and their emotional response scores. Therefore **ANOVA** was used to determine if the emotional responses were statistically **different** across the three participant age groups.

Finally, a Tukey test was applied to determine the extent of the differences of the emotional responses as well as the specific variations between respective age groups. All results tables are presented in the Results chapter.

3.7 Chapter conclusion

This chapter has provided a brief rationale and explanation of the research aims allows an appreciation of why specific questions have been posed and how the research methods and statistical testing chosen address these enquiries. These procedures are then presented including how the initial desktop research was approached, the method for creating an object biography and the design and distribution of the questionnaire. Finally, the statistical tests chosen for each research question are explained to demonstrate the analysis validity.

The following Results chapter will present an overview of the results and the questionnaire descriptive statistics. The statistical analysis of the questionnaire data is presented and explained. Finally, a chapter conclusion will highlight the research key findings and address whether the main research hypothesis and the supplementary questions have been accepted or rejected. Additional results tables are presented in Appendix 2.

CHAPTER FOUR: RESULTS

This chapter presents an overview of the Sobibór site for context and the full identification tag object biography produced for this research. The object biography demonstrates the quantity and quality of detail resulting from researching a simple object. A condensed version of this biography was included with an image in the research questionnaire.

The questionnaire results are presented including the questionnaire participant demographic characteristics and the descriptive statistics related to the mean and standard deviation of the total emotional response score. A comparison table of participant average emotional response scores to items WITH/WITHOUT object biographies is also provided alongside a table showing the ranking of questionnaire

items according to total emotional response score. The statistical analysis of questionnaire data then provides the results of the various statistical tests required to address the main research hypothesis and the three supplementary research questions. Additional material including raw data and post hoc tables are presented in Appendix 2. Finally, a research results conclusion is included which provides a concise account regarding whether each research question was confirmed or rejected and introduces the next chapter; Discussion.

4.1 Sobibór: An overview

Sobibór was the second Aktion Reinhard camp to be constructed and work started in 1942. The camp is located north of Lublin, Poland in a forested area close to the Bug River. Sobibór was a death camp and approximately 100,000 people were killed there in the first three months of becoming operational (Gilbert 2009). The original gas chambers were expanded from three to six in order to receive additional transportations from the Netherlands and France. A revolt in October 1943 by prisoners who were forced to work in the camp resulted in approximately fifty prisoners escaping and surviving the Holocaust. This revolt meant that plans to expand the camp were abandoned and its closure was followed by some demolition of structures and mass tree planting, in an attempt to disguise the camp's function.

It is believed that at least 170,000 individuals were killed at Sobibór (Gilbert 2009)

This young girls' identification tag was discovered during the Sobibór 2013 excavation conducted by Yoram Haimi et al. It was located between the mass graves in Camp lll which included the gas chamber building. This means that this small object was likely to be in Annie's possession up until her death and only lost at the point her body was 'processed'.

4.2 The identification tag object biography

Figure 2: Completed artefact analysis worksheet for the identification tag

SITE: Sobibór death camp, Poland. **OBJECT NAME/NO:** Identification tag.

EXCAVATION LOCATION & DATE: Include any immediate structural or spatial detail. Attach site maps/excavation detail as available.

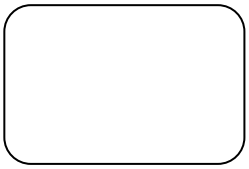
Sobibór archaeological project Haimi et al 2013 excavation..

Object excavated between mass graves, Lager lll North of the gas chamber building.

Attachment 1: Site map showing approximate excavation area.

DIMENSIONS: Include artefact measurements and description or sketch of shape.

H. 3.1 cm, W 4.1 cm



not to scale

MATERIAL: Include the composition of the artefact, eg: wood, metal.

Aluminium

DECORATIVE DETAIL: Include colour and texture. Describe any text, images/engravings.

Grey in colour. Worn texture, some fine and deep scratches. Machine engraved with: ANNIE KAPPER O. YSELSTR.44 AMSTERDAM Z. HOLLAND

Plain on reverse

SPECIAL QUALITIES: Describe features such as moving parts, evidence of adaptations, use wear, indicators of origin or manufacture.

Appears machine manufactured and engraved. Origin: unknown.

OBJECT FUNCTION: Include the possible primary function of the artefact. Describe any indicators of use by a specific gender, profession or age group.

Identification aid given to children during the war particularly in the Netherlands

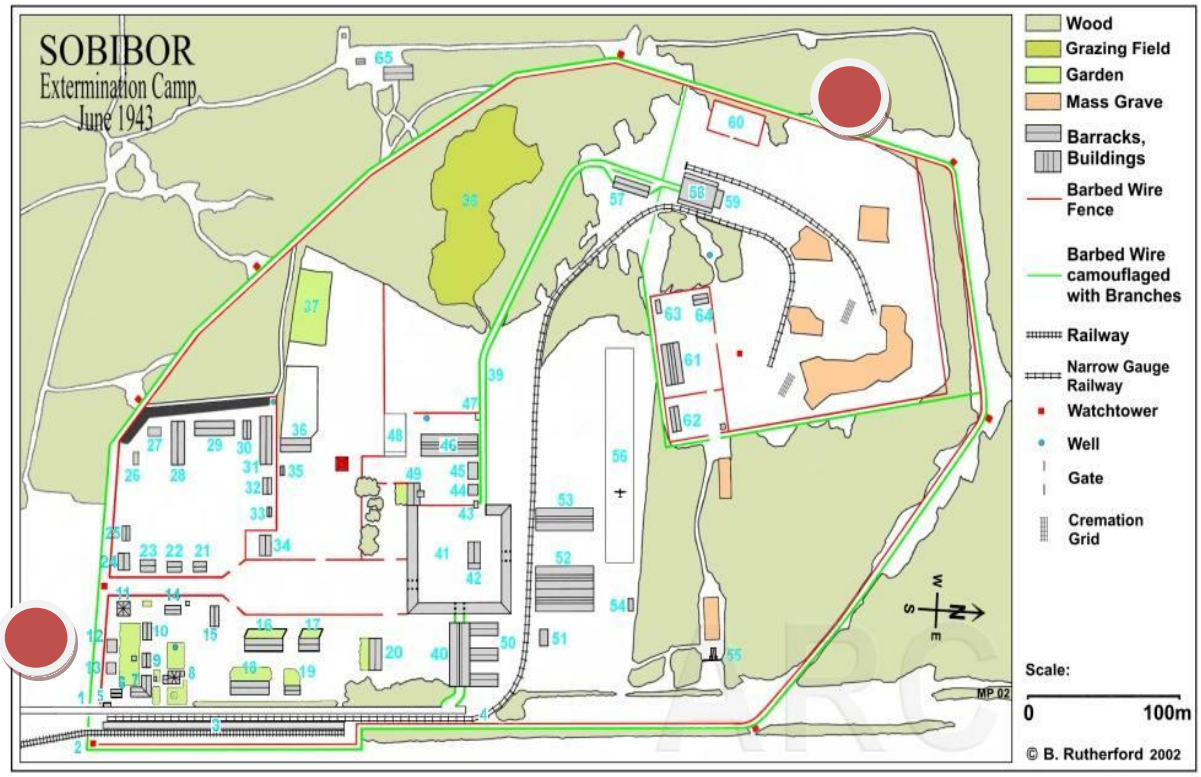
OBJECT ROLE: Consider how this artefact featured in the owners life. Was it sentimental, practical or both?

This tag would have primarily been a practical item worn as a neck or wrist pendant

It may have held some sentimental meaning as it was a reminder of home and identity?

COMPARISONS: Include images/references for possible modern day equivalents for research comparisons.

Several attempts were made to contact the archaeologists who excavted this item. Ivar Schute was helpful with providing some additional detail. However, specific detail was not available and unpublished at the time of enquiring.



Approximate location of identification tag excavation

Precise location not yet released/ published

Figure 3: Attachment 1 for reference with artefact analysis worksheet/identification tag

Identification tags were used during World War Two predominately by parents hoping to ensure the safety of their children. It is possible that this was initiated due to air raids and the possibility of separation during seeking refuge at air raid shelters. Annie Kapper would have been given her identification tag by her parents and would have been worn daily as a neck or wrist pendant. Annie's tag actually displayed her original address in Amsterdam (O. YSELSTR.44 AMSTERDAM Z. HOLLAND) and not the family's final address of TRANSVAALSTRAAT 129 at the time of their arrest and deportation to Westerbork transit camp. It is possible that at the time the family moved to their last address that local businesses were forced to close including those that could provide metal engraving services; as a result a tag with the new address was not obtained.

Figure 4: A scaled reconstruction of the identification tag to demonstrate actual size on a 12 year old girl. Figure source: Authors own (2020).

Figure 5: Reconstruction of the identification tag worn as a wrist pendent for scale. Figure source: Authors own (2020)

The owner of this tag, Annie Kapper was born on 9th January 1931 in Amsterdam. Her parents were Meijer Kapper (1907-1943) and Elisabeth Kapper (formally Blom 1907-1943). The couple also had a younger son Gerard born in 1936 who also died at Sobibór with his parents and sister on 2nd April 1943 (Geneologie Van Raam 2019). Annie's father, Meijer was a musician and music teacher and during 1942 offered music tuition from his home/s having previously being the head of the A. Zwaag music school. This may have been a pre war choice, or more likely due to restrictions for the employment of Jewish citizens and an attempt to earn a living by becoming self employed. Meijer Kapper advertised his tuition services from both Amsterdam addresses 44 O. Yselstr (Oude Ijselstraat 44) until July 1942 and then the family's second address of 129 Transvaalstraat (Joodsch Weekblad 1942 and 1943) Meijer's March 19th 1943 advertisement was placed approximately seven days before the family's arrest at the Transvaalstraat home and their arrival in the Westerbork holding camp on the 27th March 1943 (Joods Monument 2019) The family were then transported to Sobibór with 1255 other people on the 5th transport, 30th March 1943. This transport took over two days, arriving at Sobibór on the 2nd April 1943. Previously, all transportations from Westerbork had been destined for Auschwitz-Birkenau until the beginning of March 1943 resulting in 19 Westerbork- Sobibór transportations and approximately 34,000 Dutch Jew deaths (Schelvis 2007).

Annie's paternal family appears to have roots in music which includes a great uncle Maurits Kapper (1882-1984) who was an opera singer and survived the war initially by hiding in a family friend's house. Maurits Kapper lived to the age of 101 having performed at several prestigious venues in Europe. Annie's paternal aunt Catharina Kapper/Weening (1905-1943) Catharina also died at Sobibór.

Annie's maternal grandmother Marianne Blom/Zodij was an author and public speaker.

Figure 6: Annie Kapper Family Tree including photographs of Annie's aunt and uncle.

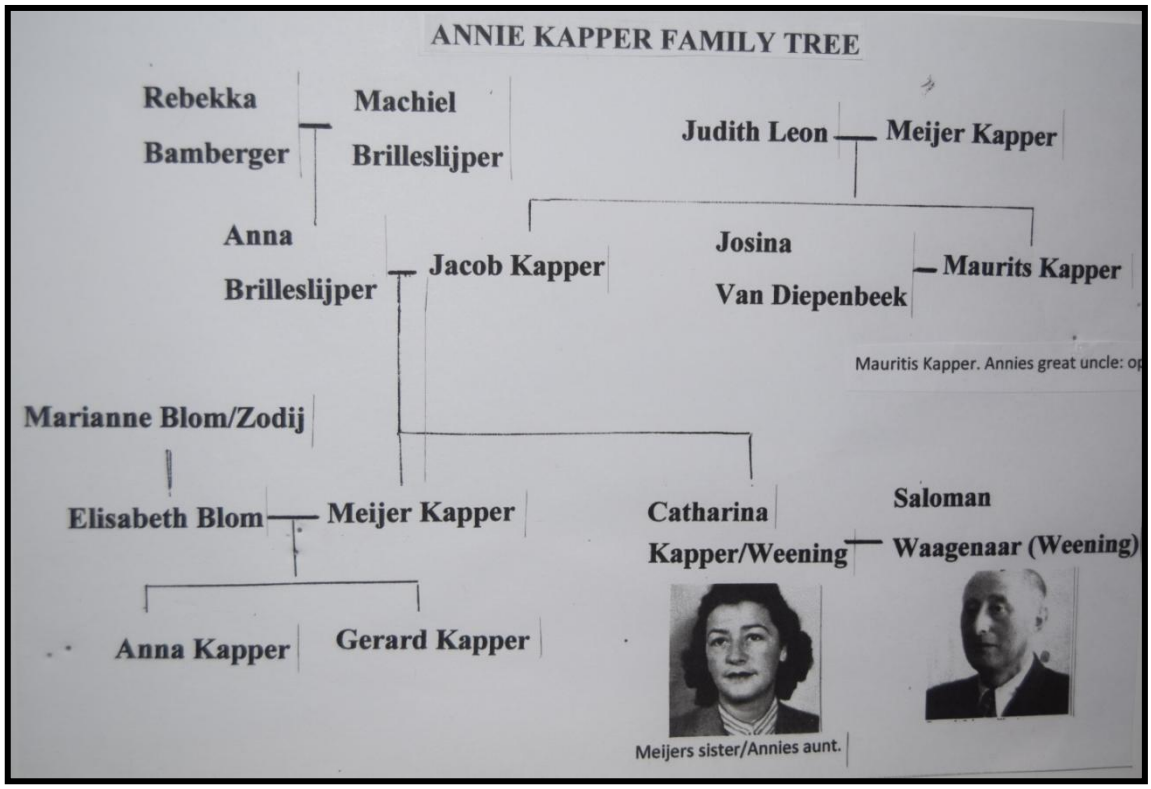


Figure source: Photographs, Geneologie Van Raam (2020) https://www.genealogieonline.nl/genealogie-van-raam/

Today, the identification tag and associated images are all that remain as a tangible link to a talented family. However, with research and the application of an object biography we are able to re-trace an objects' journey, its' role within a family and the life of a 12 year old girl. With a familial background of music and literature we can only imagine the potential of Annie Kapper and her younger brother Gerard and accept that this will never be realised.

It is tempting to consider the 'death' of this object as the moment it was deposited on the ground at Sobibór and at the same time as the death of the owner. However, this research and object biography is one example of how this item's life story has being extended. This includes the discovery by a team of archaeologists and their investigations, to the conservation and archive departments of a Holocaust museum, followed by the inclusion in a mainstream publication. This identification tag continues to speak, inform and contribute to the dissemination of the Holocaust and introduces the observer to the life and experiences of the owner who cannot speak.

An alternative format for understanding this object biography, significant people, life and experiences are presented in Appendix 3 with a focus on minimal text and relatable images.

4.3 Statistical testing

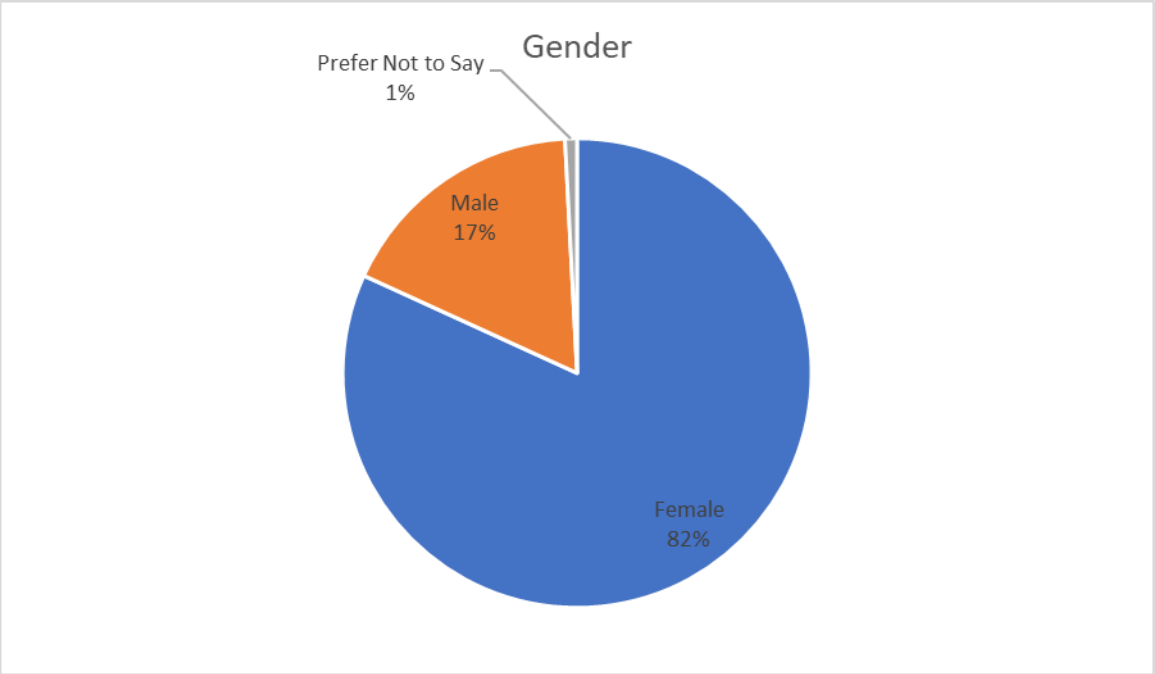
This section will present the statistical results of the research in order to address the main research hypothesis.

As explained in the methodology chapter, applying a colour key for each item assisted with reading the results regarding the **a**ffect of object biographies.

Questionnaire results: Descriptive statistics

The demographic characteristics describe the features of the sample population involved in the study. A total of 121 participants participated in the research out of which 99 were females, 21 males and one individual preferred not to identify their gender. A total of 120 respondents are involved in the analysis of the results. The questionnaire respondents consisted of 31 individuals within the age range of 45 years and above. 51 participants in the age bracket 18-30. The individuals within the age bracket of 31-45 comprised of 39 individuals.

Table 1: The proportion of the respondents by Gender.



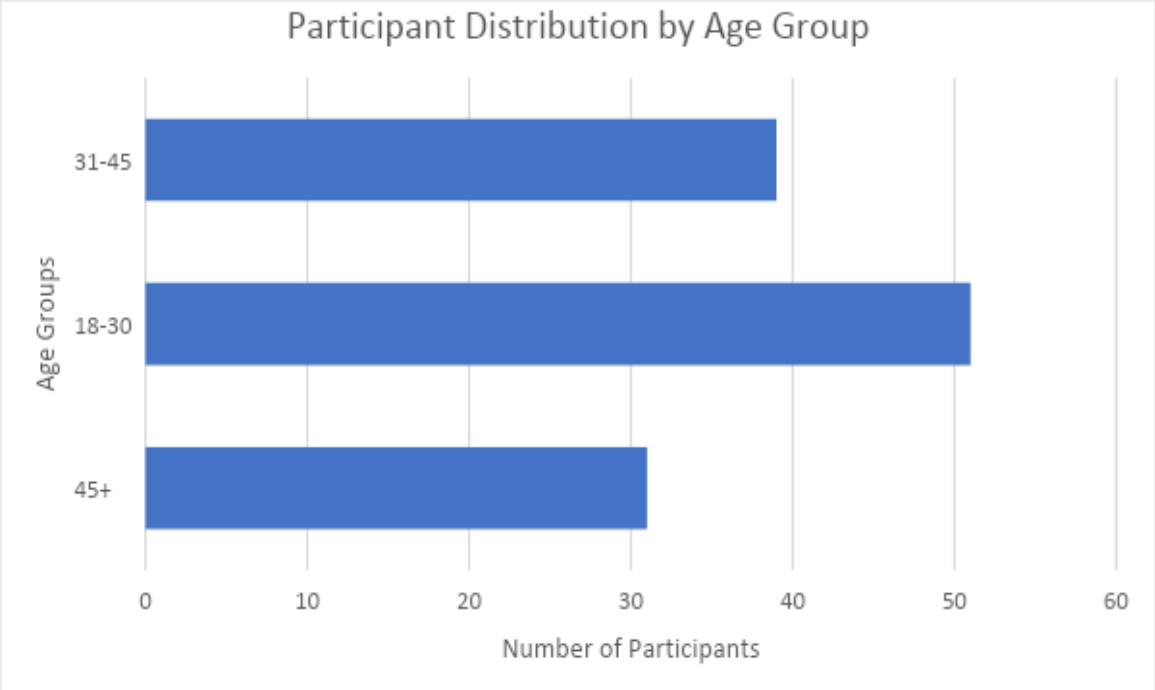


Table 2: The proportion of participants by Age

Table 3: The descriptive statistics related to the mean and standard deviation of the total emotional response score

Object number on questionnaire	Colour Code	Type of the Object	Number of respondents	Min score noted	Max score noted	Mean	Std. Deviation
Item 1- With Object Biography	Red	Personal item with name connection	120	0	4	1.55	.957
Item 2- Without Object Biography	Yellow	Unusual/unfamiliar item	120	0	3	.43	.728
Item 3- Without Object Biography	Blue	Practical, non-personal item	120	0	3	.36	.631
Item 4- With Object Biography	Red	Personal item with name connection	120	0	5	1.33	.986
Item 5- With Object Biography	Blue	Practical, non-personal item	120	0	4	.86	.925
Item 6- Without Object Biography	Orange	Sentimental item, no name connection	120	0	4	1.05	.825
Item 7- With Object Biography	Green	The item associated with a specific group	120	0	5	1.39	1.067
Item 8- Without Object Biography	Yellow	Unusual/unfamiliar item	120	0	3	.42	.680
Item 9- Without Object Biography	Orange	Sentimental item, no name connection	120	0	4	1.07	.932
Item 10- Without Object Biography	Green	The item associated with a specific	120	0	5	1.32	1.035

		group					
Valid N (Listwise)			120				

The mean scores presented in Table 3 for participant emotional responses are used to indicate the overall emotional affect that is associated with each of the artefacts. All the items had instances of certain respondents stating neutral emotions or curiosity, therefore having an emotional response score of 0. However, Item 10- WITHOUT OBJECT BIOGRAPHY had an instance of the highest individual participant emotional response score of 5. Item 1: WITH OBJECT BIOGRAPHY (ID tag) has the highest mean emotional response of 1.55 while Item 3: WITHOUT OBJECT BIOGRAPHY (metal plate) has the lowest mean emotional response score of 0.36.

Table 4: A table to show a comparison of the means of participant's emotional response to questionnaire items with and without object biography

Questionnaire Item number	Mean score of emotional responses to items WITH Object biography	Questionnaire Item number	Mean score of emotional responses to items WITHOUT Object biography
1.	1.55	2.	0.43
4.	1.33	3.	0.36
5.	0.86	6.	1.05
7.	1.39	8.	0.42
		9.	1.07
		10.	1.32
	Total of the emotional response mean score= **1.28**		Total of the emotional response mean score= **0.56**

This table shows that the inclusion of an object biography increased the participants average emotional response score by 0.72

Table 5: A quick reference table to show the ranking and type of questionnaire items in relation to average emotional response scores

Questionnaire Item no and object type (colour code)	Average emotional response score	Rank	Presence of an Object biography?
Item 1-RED	1.55	1	YES
Item 7-GREEN	1.39	2	YES
Item 4- RED	1.33	3	YES
Item10-GREEN	1.32	4	NO
Item 9-ORANGE	1.07	5	NO
Item 6-ORANGE	1.05	6	NO
Item 5-BLUE	0.86	7	YES
Item 2-YELLOW	0.43	8	NO
Item 8- YELLOW	0.42	9	NO
Item 3- BLUE	0.36	10	NO

General observations from the descriptive statistics

As shown in the reference Table 5; the three items that produced the highest emotional response score DO have an object biography. The two object types that achieve the highest emotional response score are items of a personal nature with a name connection (Red) including the ID tag, and those items associated with a specific category of people, for instance; children or a specific religious affiliation (Green). However, item 10 on the questionnaire did NOT have an object biography attached but scored the fourth highest emotional response score. This item, a Star of David pendant and classified for this research as Green, was clearly associated with the Jewish faith.
Item number 3, classified as Blue: a 'practical, non-personal item' (metal plate) and without an object biography scored the lowest emotional response score of all items (0.36). However, item 5, again a 'practical, non-personal item' (copper bowl) WITH an object biography showed a higher average emotional response score of 0.86.
Despite not being presented with an object biography, items 6 and 9 classified as 'sentimental items' (Orange) provided emotional response scores of 1.05 and 1.07 respectively. These items, a gold and diamond ring and a engraved gold ring and the

possible reasons for a higher emotional response score, will also be addressed in the following Discussion chapter along with the other general observations noted.

4.4 Statistical analysis of Questionnaire data

This research hypothesis requires an examination of the differences between emotional response scores to objects with and without a biography. As such, the statistical tests applied are ANOVA and Tukey post hoc.

ANOVA (analysis of variance) test was necessary to identify any significant **differences** between emotional response scores for items WITH an object biography and emotional response scores for items WITHOUT an object biography. As mentioned in the previous Methodology chapter, this allows a comparison of the mean (average) emotional response scores of questionnaire participants to each questionnaire item. This table shows the outcomes of the ANOVA analysis to test the significant differences among the groups (with/without object biography).

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	215.853	9	23.984	30.494	.000
Within Groups	935.933	1190	.786		
Total	1151.787	1199			

Table 6: ANOVA test results for the emotional score differences to objects with/without an object biography

The ANOVA statistical test results show the p-value obtained 0.000 is less than 0.05 which implies that there is a significant difference between the emotional responses for items with and without an object biography. 0.05 is the significance (or alpha level) and refers to the probability of rejecting the null hypothesis. The null hypothesis states that there is **no** statistical difference between the two sets of data that are being analysed. The differences in the emotional responses are also demonstrated by the F value (30.494) that is not closer to 1; therefore showing that the participants responded to a variety of emotional response words at varying scales, to the images presented in the questionnaire.

The established statistical **difference** among the groups further confirms the study hypothesis that; 'a Holocaust artefact when accompanied by an object biography has a greater emotional affect on an audience than an object without a biography'.
Finally, a Tukey post hoc test was applied. This test identifies the extent of any differences and the specific variations in the average emotional response scores for each of the ten images.
This Tukey results table incorporates the questionnaire item number colour code which identifies the type of object.

Dependent Variable: Emotional Responses						
Tukey						
(I) Object type	(J) Object type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
REDItem_1	YELLOWItem_2	1.133*	0.114	0.000	0.77	1.5
	BLUEItem_3	1.208*	0.114	0.000	0.85	1.57
	REDItem_4	0.225	0.114	0.624	-0.14	0.59
	BLUEItem_5	.700*	0.114	0.000	0.34	1.06
	ORANGEItem_6	.508*	0.114	0.000	0.15	0.87
	GREENItem_7	0.167	0.114	0.909	-0.2	0.53
	YELLOWItem_8	1.142*	0.114	0.000	0.78	1.5
	ORANGEItem_9	.483*	0.114	0.001	0.12	0.85
	GREENItem_10	0.233	0.114	0.572	-0.13	0.6
*. The mean difference is significant at the 0.05 level.						

Table 7: Multiple comparisons of the emotional responses from (Item 1-ID tag) and other object types

This table highlights those items that had a significantly different average emotional response to the ID tag. Emotional responses to Item 1 (Red) – identification tag are significantly different to Item 2 (Yellow) Items 3 and 5 (Blue) Items 6 and 9 (Orange). There is no significant difference between the emotional response to Item 1 and the other Red Item (4) and the Green items on the questionnaire (7 and 10).
The Discussion chapter will address the possible reasons for significantly higher and lower emotional response scores.

A Tukey comparison table is available for each of the ten questionnaire items and presented in Appendix 2.

The demographic data revealed a good representation of the three different participant age brackets. As such, it was decided that an additional analysis of this variable and the impact on emotional response scores was also necessary. This posed the question:

Is there a correlation between the age of the participants and emotional response scores? Are the emotional response scores statistically different across the three questionnaire participant age groups?

This research question also requires an examination of both **correlations** and **differences** in the data regarding participant age group and emotional response scores. As such, a **Pearson** statistical test was applied followed by an **ANOVA** test of variance. Finally, a Tukey post hoc test was applied to identify the extent of differences and any specific variations.

Pearson correlation test: Object type, gender and emotional response scores

The Pearson statistical test was applied simultaneously for the object type and the initial gender correlation enquiries.

		Emotional Response Score	Gender	Object type
Emotional Response Score	Pearson Correlation	1	-.056	.056
	Sig. (2-tailed)		.051	.053
	N	1210	1200	1210
Gender	Pearson Correlation	-.056	1	.000
	Sig. (2-tailed)	.051		1.000
	N	1200	1200	1210
Object type	Pearson Correlation	.056	.000	1
	Sig. (2-tailed)	.053	1.000	
	N	1200	1200	1210

Table 8: Correlation coefficients among the key variables

A summary of the correlation coefficients between the independent variables; object type and gender and the dependent variable and emotional response score

The coefficient in the relationship between the **object types** and emotional response score is 0.053 therefore showing a positive correlation between the two variables. While only 120 participants were involved in the study, the value N (1200) presented in the correlation table shows the number of observations made towards the comparison of the

key variables. Each of the 120 participants made 10 observations (the number of the questionnaire items) resulting in 1200 observations. The positive correlation between the emotional responses and object types (indicated by colour codes) shows that there is a relationship between participant emotional scores and object type. Participant emotional response scores increased for personal items, artefacts associated with a specific group and sentimental items. The statistical significance of the correlation coefficient obtained between emotional responses and the different object types demonstrates that the research hypothesis relating to object type is **confirmed; there is a correlation between Holocaust object type and participant emotional response.**

The correlation coefficient for emotional response score and **gender** is 0.051. The coefficient is close to zero therefore showing that there is a weak relationship between gender and emotional responses. However weak, this is a positive relationship between gender and emotional response and shows that being female or male correlates with the emotional responses to each of the Holocaust artefacts. As a result, the research question posed regarding any correlation between male and female emotional responses is **confirmed; there is a correlation between participant gender and emotional responses to Holocaust artefacts. That is; higher emotional response scores correlate with a questionnaire participant being female.** However, it should be acknowledged that the majority of questionnaire participants were female and as such we cannot generalise this result to the wider population.

The Tukey post hoc tables presented in Appendix 2 provide a tool for cross comparison for emotional response scores and each object type and support the results of the Pearson correlation testing.

Independent t-test for gender differences in emotional response scores

A correlation analysis has been undertaken to determine the possible relationship between gender and the emotional responses as presented in Table 8 above. This has established that there is a weak but positive relationship between gender and emotional response.

An independent t-test was then applied to establish if there is a significant **difference** in the values obtained from the emotional responses in the two groups (male and female). The first part of the t-test results is the group statistics presenting the mean emotional response scores that are associated with the each gender as well as the standard deviation and standard error mean. Out of 210 male responses, 0.87 mean emotional response score is obtained as compared to the 1.01 mean emotional response score for

the 990 female responses. The findings show that **female respondents had a higher mean emotional response score** as compared to the males as summarised in Table 9.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Emotional Response	Female	990	1.01	1.015	.032
	Male	210	.87	.783	.054

Table 9: Group statistics for emotional responses variation by gender

The results of the test of significance are presented to show the significance level value that is used to examine the results and that they are statistically significant. A significance value of greater than 0.05 ($p > 0.05$), shows that the means of the groups being compared are equal. On the other hand, $p < 0.05$ shows statistical significance in the differences in the results being compared are not equal. The group statistics shows that the means of the emotional responses for the females and males are different. However, a statistically significant difference can only be established through the significance values.

Table 10 below shows the results obtained from the Levene Equality of Variances test and significance value at 95% confidence level (CI) or alpha (α) 0.05.

The findings show that the emotional responses in females are significantly higher. $p=$ 0.021 and $p=0.051$ if equal variances are assumed and not assumed respectively. The homogeneity of the variances is further demonstrated by the Levene test in which the variances have been established as not equal ($p=0.013$).

		Levene's test for equality of variances		t-test for equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Emotional Response	Equal variances assumed	6.232	.013	1.956	1198	.051	.145	.074	.000	.291
	Equal variances not assumed			2.310	374.479	.021	.145	.063	.022	.269

Table 10: Levene Equality of Variances test; an independent samples test

Statistical testing for age enquiries

The demographic data presented a good cross section of the questionnaire age groups. This statistical analysis of age variables was approached separately with the intention of removing other variables such as the presence of object biographies, object type and gender.

Table 11: Summary of the mean emotional responses in each of the age groups

Age Bracket	Mean	Number of Observations (N)	Std. Deviation
18-30	1.03	480	.990
31-45	.86	420	.920
45+	1.10	300	1.028
Total	.99	1200	.980

The age bracket 45+ has the highest average emotional response score (1.10) followed by the 18-30 + year group (1.03). The age group of 31-45 shows the lowest emotional response with the mean emotional score of 0.86. The mean emotional response scores obtained imply that while there are differences in the emotions displayed by different age brackets; there is no linear relationship between age and emotional responses. The data does not support a trend where an increase or decrease in age leads to an increase or decrease in the average emotional response score.

A **Pearson** correlation analysis was then undertaken to determine if there is a statistical significance in the relationship between age and emotional response score- at p-value (α) =0.05.

The results summarised in Table 12 below show that the relationship between age and emotional response score is **not** statistically significant since p-value (0.537) is greater than the alpha ($p>0.05$). The link between emotional responses is demonstrated by the Pearson correlation coefficient (r). In this case, correlation coefficient is 0.018, indicating that whilst there is a positive relationship between emotional responses and

age; the correlation is too weak to conclude there is a linear relationship (correlation) between age and emotional responses.

Table 12: The correlations between the age groups and emotional response scores

		Emotional Responses	Age
Emotional Responses	Pearson Correlation	1	.018
	Sig. (2-tailed)		.537
	N	1200	1200
Age	Pearson Correlation	.018	1
	Sig. (2-tailed)	.537	
	N	1200	1200

The data does not support a trend or correlation where an increase or decrease in age leads to an increase or decrease in the average emotional response score. Therefore this part of the enquiry regarding a correlation is **rejected; there is no correlation between the age of participants and emotional response scores.**

It was interesting to then explore the **differences** in emotional response scores between the three age groups. ANOVA was used to determine if the emotional responses were statistically **different** across the three participant age groups. Table 13 below shows that the obtained p-value (0.002) is less than 0.05 therefore implying that the differences in the emotional responses among the age groups were statistically significant.

Table 13: The differences between age groups and emotional response scores

ANOVA Emotional Responses					
Age	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	11.578	2	5.789	6.077	.002
Within Groups	1140.209	1197	.953		
Total	1151.787	1199			

This means **that there is a statistically significant difference between the emotional response scores of the three age groups** of participants.

There is a statistically significant difference between the mean scores of the age group 31-45years and the age groups 18-30 years and 45+ years. In other words; the age groups of 18-30 years and 45+years showed statistically significant higher emotional response scores compared to the 31-45 year group of participants.

Whilst ANOVA identified a difference between the three age groups and their emotional response scores, a post hoc Tukey test was applied to determine the extent of the differences of the emotional responses, as well as the specific variations between respective age groups. There is no statistical difference in the emotional responses of the age group 18-30 and 45+ (*p=0.520).* However, the emotional responses in 18-30 age group are statistically different from the outcomes in the 31-45 group (*p=0.030).* Significant statistical difference is also observed between the age group of 31-45 and 45+ (*p=0.003)* as summarised in Table 14 below.

Table 14: Multiple comparisons of the differences in emotional responses in the different age groups

Dependent variable: Emotional Responses Tukey						
		Mean Difference			95% Confidence Interval	
(I) Age	(J) Age	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
18-30	31-45	.165*	.065	.030	.01	.32
	45+	-.078	.072	.520	-.25	.09
31-45	18-30	-.165*	.065	.030	-.32	-.01
	45+	-.244*	.074	.003	-.42	-.07
45+	18-30	.078	.072	.520	-.09	.25
	31-45	.244*	.074	.003	.07	.42
*. The mean difference is significant at the 0.05 level.						

In summary regarding the results of age enquiries for this research; there is no correlation between age and emotional response score, however there are significant differences between the emotional response scores across specific age groups.

4.4 Research results

The results of the statistical analysis can be briefly summarised as;

There **is** a significant difference between the emotional responses for items with and without an object biography. **An object biography can increase emotional responses; therefore the research hypothesis is confirmed**.

The research question relating to object types and any correlation with emotional response scores found that particular object types do correlate with an increase or a decrease in participant emotional response scores. Specific object types that produced higher emotional response scores include personal items, items that are immediately associated with a specific group and those items of a sentimental nature. **There is a correlation between Holocaust object type and participant emotional response; therefore this research question is confirmed.**

The research questions relating to participant gender demonstrated a weak but positive correlation between gender and emotional response scores and these results are not generalisable due to a higher number of female participants than male participants.

Additionally, a difference between male and female emotional response scores was determined showing that female participants had higher average emotional response scores. **There is a correlation between participant gender and emotional responses to Holocaust artefacts and there is a significant difference between male and female emotional response scores;** therefore these research questions **are confirmed.**

However, we cannot generalise from these results as the male and female participants were unequal and as such not representative. The research questions relating to age show that there was **no correlation** or linear relationship identified **between specific age groups and emotional response scores.** As such, the correlation enquiry was **rejected**. However, further testing demonstrated **that there is a statistically significant difference between the emotional response scores of the three age groups of participants; therefore this element of the research question was confirmed**.

DISCUSSION: CHAPTER FIVE

This chapter provides a discussion in relation to how the research results have specifically addressed the research questions. The implications of these results are considered in relation to previous research presented in Chapter Two: Literature review and examines how this research has contributed to the prominent themes and contributed to this pool of knowledge. Practical recommendations for the future dissemination of the Holocaust, as an example of difficult heritage, are discussed. Finally, a discussion conclusion is provided.

5.1 An interpretation and discussion of the research results

The author was keen to address the research hypothesis and the research questions posed in order to explore the differences between an effective and affective approach with regards to Holocaust material culture. This interest was based on approaching the research from several different angles. This included working experience in an education environment, previous research and visits to a Holocaust site and extensive reading for this and previous Holocaust research. The author is conscious that several references and examples are cited regarding the Auschwitz -Birkenau memorial museum, Poland. This site is included regularly in this research as an example of a high profile Holocaust visitor site that the author has experienced. Due to Covid 19 restrictions additional research travel was not possible. The author had planned to visit the Sobibór site and at least one other site for research purposes.

Incorporating personal experience of a variety of museums and educational experiences, as a child and adult was also key to providing a starting point regarding what resonates with an observer. The obvious benchmark of the Anne Frank diaries (Frank 1947) and the universal fascination around this young girls' accounts of

persecution demonstrate that audiences engage with, and are affected by the individual. The results of this research further suggest that a simple material culture link to an individual affects the observer, even when there is no 'physical person', photographic reference or personal Holocaust connection. This **a**ffect equates to an exclusive value placed on material culture associated with the Holocaust.

From the questionnaire analysis it is evident that the identification tag and the object biography created for this research produced the highest average emotional response score from participants. This was followed by two items that were also presented with an object biography and interestingly from two different object type categories. This somewhat contradicts with the research expectation; that personal items with a name connection (Red) and the inclusion of an object biography would dominate the highest average emotional response scores. Whilst the highest emotional response score **was** associated with a personal item with name connection and an object biography (ID tag) the second highest emotive score was obtained from an item associated with a specific group (Green). However, this item was also presented with an object biography. The fourth highest average emotive score was produced from another item associated with a specific group (Green) and interestingly was not accompanied by an object biography.

With regards to addressing the main research hypothesis; it is necessary to acknowledge the emotional affect on participants of an object biography, but also discuss those item types that appear to automatically resonate with an audience. This is evident in the emotional response score averages of participants, despite the lack of object biographical detail, it would appear apparent in the average emotional response scores for items that are immediately associated with a specific group, for instance children or the Jewish faith. Additionally, those items of a sentimental nature such as an engagement ring, even without a name connection or object biography, produced high emotional response scores. The item type colour coding applied to the research data has been invaluable in isolating specific anomalies and allowed inspection beyond what was anticipated from the research results.

What emerged from the participant responses was interesting regarding participant curiosity. This was noticeable with regards to items without biographical context but also unfamiliar objects (Yellow). An example of this is questionnaire item 8. This

suggests a participant desire to be further informed and supports the research of Popescu (2020) with regards to observer curiosity.

A neutral emotional response appeared noticeable with questionnaire item 3; a practical non-personal item (Blue) and presented without an object biography. However, item 5, another practical non-personal item that was presented **with** an object biography did see an increase in the average emotional response score of 0.50.

Whilst object biographies are affective it may be that certain types of objects can have a similar emotional affect due to their obvious association with specific groups, as mentioned above regarding children and the Jewish faith. This may be why certain sites display artefact assemblages without much textual detail; as if to suggest that some objects almost 'speak for themselves'. However, some exhibits do not appear to follow this principle. For instance, an exhibit at Auschwitz ll (Birkenau) includes a mixture of practical non-personal items including scissors and small utility items. This research has highlighted that this type of artefact results in a low emotional response score, particularly in the absence of an object biography. This, to some extent does challenge the impact of some material culture exhibits across Holocaust museums that devote space to presenting items that are of minimal affect.

The results regarding gender correlations and differences showed that female participants had a greater emotional response score. However, as previously acknowledged the number of female and male participants was not equal. The questionnaire received more female responses. As such, we should avoid generalising from these results.

The testing did not extend to examine which specific objects had the highest emotive response from females. However, this would be an interesting extension and could examine whether the higher scores associated with sentimental items were generated by female participants. It could be argued that women are often sentimental about items relating to their partners and are likely to immediately recognise an engagement ring, similar to their own. In response this could increase emotional feelings when realising that a couple's relationship and future together was ended due to the Holocaust. Another interesting possibility when considering higher female emotional responses is whether women generally feel more comfortable expressing emotion, even in a

questionnaire format. These are considerations that the author is aware could be addressed by other academic disciplines.

The results regarding differences in emotional response scores across the three participant age groups determined that the age group 45+ showed the highest emotional response score. This could be explained that those participants may have included individuals that have a connection or memory of World War Two. However, this does not explain the findings that show no significant difference between the 45+ age group and the 18-30 age groups. The research results demonstrated that items with an object biography, personal items with a name connection, items associated with a specific group and sentimental items produced the highest emotional response scores. Whilst no correlation between age and emotional response was established, these object types may well resonate with the eldest questionnaire age group. However, this cannot explain the second highest mean score that was generated from the youngest, 18-30 age group. Holocaust museums typically receive visitors across each of the three age groups as defined for this research. As such, these results provide an indication of what exhibits and formats are affective with the younger and older age groups, but may also invite further research to determine how to connect with the 31-45 years observer.

What seems apparent is that the quality of exhibit content could be more affective than the quantity of items displayed. Taken quite literally; a display of thousands of spectacles will effect and shock. However, one simple identification tag with a biography will affect the observer.

5.2 Implications of this research for literature introduced in Chapter Two: Literature review

This section highlights the prominent themes that were identified in the literature review and considers how this research has contributed to, or challenged these themes.

With regards to this research and literature surrounding the historical foundations and role of material culture in archaeology; this research compliments Collingwood's philosophical approach (cited in Dray 1995) when considering the 'main actors' motivations when examining history. Collingwood's progressive theories seem pertinent with regards to material evidence. If one premise of 'history' is that of physical, tactile assemblages then the thoughts and motivators of past actors interacting

with those objects should be considered alongside detail of an object's physical properties, type and typical usage. The consideration of an individual's thought processes and motivations during a specific period and under certain conditions can allow the ‘re-enactment’ and cause and effect scenarios suggested by Collingwood to be contemplated about history and the material evidence that was immersed in that history. An object biography proposed in this research; extends this humanistic approach by selecting artefacts and recreating a life story. This includes the objects’ creation, journey and deposition, but crucially introduces the main actors that interacted with that object. This principle compliments the questioning procedure used for this research during the inspection of a specific object for its biography, the ‘where what and why’ enquiries.

The literature review chapter introduced Myers (2008) and a consideration of elite bias. The concept of elite bias from textual sources can be presented as an example of how some material culture, unlike many textual sources, is not subjective and presents as hard evidence that cannot be easily manipulated at the point of excavation. Material culture dispersed across Holocaust sites is genuine, without textual bias, political agendas or the influence of propaganda. Ultimately initial interpretation is enhanced by archaeological projects seeking to define structural features and spatial use thus allowing an insight into the route, context and deposition of portable artefacts. This includes witness testimony and accounts of their individual or group experiences of the concentration camp regime, spatial and structural usage and mass grave locations.

The research and object biography of the identification tag belonging to Annie Kapper, for instance, provides confirmation of the Netherlands transportations documented from the Westerbork camp. The excavation location corresponds with official Sobibór site plans and witness testimonies regarding areas designated for undressing and execution, and the previous type of archaeological finds (Schute 2017). This offers a sobering indication that this child did arrive at the Sobibór death camp but also that her ID tag was lost at the point of undressing in preparation for entering the gas chambers. This contextual interpretation formed the basis of a question and answer principle that is applied throughout this research; ‘where is it’? ‘what is it’? and ‘why is it there’?; and is crucial to approaching material evidence objectively. Therefore, research has contributed significantly regarding the objective interpretative potential of Holocaust material culture. This includes the confirmation of the accuracy of Nazi documentation

regarding transportation lists and destinations, the presence and treatment of children during the Holocaust and the accuracy of witness testimony regarding camp structures and function. In addition, this research has supported accounts regarding the speed of prisoner deaths and the possible unawareness of their fate before arrival at Sobibór.

This research utilises and contributes to the field of historical and contemporary archaeology introduced in the literature review chapter. The application of historical, political and social context alongside archaeological research assists with the interpretation of Holocaust site artefacts, similar to Saunders (e g 2004) and Moshenska (e g 2013) concerning the interpretation of First and Second World War material evidence. It also demonstrates that not all textual material is manipulated or produced from a biased perspective. It would be nonsensical to produce written documentation with the express purpose of demonstrating the planning of a mass genocide, the transportation of people (Claims Conference 2021) and the installation of multiple crematorium facilities (Van Baar and Huisman 2012). The historical knowledge of World War Two and the political dynamics coupled with the material evidence excavated at former Holocaust sites, as with this research, can support the detail within this documentation.

These contextual foundations, with the support of a multi-disciplinary approach counters some concerns regarding the robustness of initial archaeological interpretation of material culture interpretation. As presented in the literature review Herman (1992 cited in Cole 2013) proposes an ‘object driven’ approach and flexibility in interpretation by allowing the material culture to steer enquiry, as demonstrated by this research. This can result in a need to re-assess interpretation and consider alternative narratives (Sturdy Colls 2017). This is not un welcomed by an archaeologist researching a Holocaust site. Whilst arriving with a programme of works, project aims and objectives, context and historical knowledge it is the commitment to accurate research which encourages flexibility regarding a final interpretation. (Debois 2008 cited in Cole 2013).

Conflict archaeology has evolved from earlier battlefield archaeology and, as the literature relating to conflict archaeology highlights, this field involves archaeological studies related to all aspects of human conflict across all time periods and considers human agency. This research and a humanistic examination of conflict requires the application of cultural, social and political motivators, and often the predictability of

human behaviour in specific circumstances. By inviting a larger conflict spatial investigation and extending archaeological expertise across concentration camps, associated outlying structures, and material evidence; and then considering these finds in relationship to each other, research can move beyond 'stating the obvious' inferred from military documentation.

This research requires the 'obvious' motivational and political foundations provided by conflict archaeological and historical evidence and the well documented factual data regarding the Holocaust, whilst being ever conscious of documentary bias. This includes the 'where' detail regarding concentration camp locations, site usage, the mapped locations of built structures and their significance in the process of Holocaust internment and execution. This research contributes to the field of conflict archaeology as an example of how applying a wider context, the role of human agency and asking the 'what and why' questions, can provide an insight into conflict experience beyond military engagement. As Gilead et al (2009) propose; archaeology has the potential to address voids in our understanding of certain events.

This research also promotes a non-intrusive approach, as introduced through battlefield archaeology (Scott et al 1989) at Holocaust sites and with regards to surface material culture for the construction of object biographies: simple field observation and recording is required and intrusive excavation is not necessary. This is an important consideration across Holocaust sites where human remains may be present and is a methodological pre-requisite for Holocaust archaeology (eg Sturdy Colls 2015).

This research also relates to Theune's (2012) description of Holocaust material culture as a 'silent witness' and the notion of providing a link between Holocaust sites and a narrative of events. An object deposited in the grounds of a concentration camp is without an agenda and an objective witness to atrocity. This research extends this 'witness to events and atrocity' approach by allowing an object biography to guide an audience towards the object as a companion to the owner and a witness of *life* before death. This connection is achievable and affective as we are more likely to be able to relate to a life story *before* a concentration camp experience.

As previously mentioned, it is interesting to consider a route or 'where' the deposition location was. Those areas that appear unusual are applicable to specific Holocaust objects for this research. For instance, the precise excavation location is a crucial source

of information through context. A gold brooch, as an example, would not typically be discarded in a forest setting; one would expect it to be worn or to be stored in a safe place. The application of context and extrinsic detail is therefore vital alongside a consideration of any prevalence for similar artefacts. A significant quantity of valuable and/or sentimental items seemingly discarded does discount a broken clasp and a chance loss; this encourages the application of historical, geographical, contextual and spatial knowledge followed by an examination of each bespoke item to determine exclusive qualities. Similarly, a twisted metal, handcrafted spoon that began life as a food tin encourages questions as to 'why' this transformation was necessary.

Having established the 'where' detail through previous research and historical documentation, this research applied a wider historical and cultural context, alongside a consideration of human agency and personal motivations. How did circumstance, events and mindset impact on the individual's relationship with a specific object? The author began the research with an overview of the Sobibór site, excavation details and a small unfamiliar object. Applying a question and answer principle and an object driven flexibility ensured that the research was as objective as possible. This engraved tag could have been a post-war deposit, as the site of Sobibór has experienced amateur excavations and looting (Bowman 2015). The question of 'what is this object?' and the subsequent research provided answers regarding the object type, purpose and period, guiding research towards the object's life and its owner. Careful, object led research allowed specific scenarios to be discounted and resulted in an informed biographical journey. The case study of the site of Sobibór including historical detail such as construction dates, purpose, spatial and structural features including any landscape changes and site looting, addressed the 'why' questions posed by exploring; 'Why was this object discovered here?'.

For this research and the ID tag biography it is interesting to consider the variety of experiences of Annie, the ID tag owner. This includes how through each stage; arrest, incarceration at Westerbork, transportation to Sobibór, this item remained on her wrist or as a necklace pendant. From researching the purpose of these tags it was discovered that they were given to children in the Netherlands during WWII to ensure that they could be identified and reunited with family and/or their home address (Per comm Schute 2020). To some extent, the fact that this object was not deposited before arrival at Sobibór displays some degree of hope and possible unawareness of her fate. This

could correspond with the date of 1943 and indicate that at this stage in the war people across the Netherlands region were not aware of the Third Reich policies regarding the extermination of Jewish citizens.

The previous literature review chapter introduced further examples of Holocaust material culture interpretations to address the 'what and why' questions including camp hierarchy indicators (Moshenska and Myers 2011) gender indicators (Leo 2006) and identifying other minorities that were persecuted during the Holocaust (Košir 2019). Whilst none of these particular features seems to apply to the ID tag, it does highlight a category regarding the presence of children and how their treatment and experiences mirrored that of the adult prisoners. The literature review also introduced theories regarding prisoner resistance, the style and location of artefact deposition including the possibility of 'stashing' and deliberate concealment (Bryant 2020). From reviewing relevant literature (Hurdley cited in Bergqvist-Ryden 2017) the author proposes that it is feasible that when placed in an alien/ harsh environment that an individual could assume a new persona and self identity as a coping strategy, almost as if to prevent the vileness from contaminating the true self. This could be argued to be a sub-conscious form of resistance and of self-preservation. In parallel to this, it may be a desire to still possess an item that signifies a memory of that true self as a means of returning in thought to a pleasant former life and a defiant reluctance to lose hope. Despite the dangers of even subtle acts of resistance many prisoners held on to original items bought from home and created items covertly within concentration camps. For the purposes of this research this literature contributes to the construction of an informed object biography and highlights the role of context for interpretation. The ID tag excavation location did not reveal any evidence of 'stashing' or deliberate concealment. Examples of concealment of objects by prisoners at Auschwitz-Birkenau, for example, include sentimental items and artistic depictions of atrocity, often preserved in adapted containers or barrack spaces and not within the immediate vicinity of the undressing or gas chamber areas. This indicates the time and planning required by a prisoner who spent some time in the concentration camp before execution. Additionally, this supports the documented camp purpose and highlights the different procedures of a basic death camp, such as Sobibór and a labour and extermination centre like Auschwitz-Birkenau. For those prisoners incarcerated at Auschwitz-Birkenau for several months, undertaking various work duties inside and outside the camp, it would be difficult to not be aware of

the camp dynamics and their own fate. As a result, stashing belongings and documenting events would be more feasible than for those individuals who arrived at Sobibór and were killed almost immediately. The author proposes that this ID tag arriving at Sobibór suggests an element of optimism and ignorance as to their fate (Webb 2017). The excavation location indicates the speed of processing the arriving prisoners and this speed of execution limits prisoner opportunity for both overt and subtle resistance, including stashing any evidence of identity and atrocity. However, the simple act of Annie keeping and losing her ID tag and subsequent archaeological research has allowed an insight and biography that equates to prisoner material culture that was deliberately concealed. This innocent example of loss during chaos is invaluable for research. A further author consideration concerns the lack of specific material culture at Holocaust death camps and how this compares with concentration camps where prisoners were incarcerated for weeks or months. The absence of personal care items; toothbrushes and paste tubes, hair combs, stashed items and prisoner art work or graffiti does support the interpretations of each camps role and purpose during the Holocaust. Sometimes the absence of material culture can be as revealing as its presence. A comparative study of the differences in the type of material culture prevalent across concentration/work camps and death camps would contribute to the research arena.

This research and the choice of the ID tag for the application of an object biography is not without criticism. This object clearly displays a name and address connection. It is unfair to suggest that all Holocaust material could be examined to the same extent as most items do not display such personal detail. This type of material does require a degree of caution in its interpretation (Herman 2009 cited in Schofield et al 2019). However, a prevalence of object types can assist with a more narrational interpretation. For instance, whilst not detailed enough to create an object biography, an assemblage of cutlery can indicate a ‘canteen’ facility for Nazi personnel, an assemblage of shoes can indicate a sorting or storage facility. These material culture indicators can ultimately assist in supporting or disputing spatial and structural research and the dynamics at Holocaust sites. For instance, Pawlicka-Nowak (2004) investigations at Chelmno concentration camp and the discovery of small items with human remains could challenge the belief that all victims were naked and executed in gassing vans. Many scenarios could be proposed from this anomaly; it could be that these individuals were

civilian camp guards/Kapos who had gathered some valuables and were executed at the end of the camps usefulness. A forensic inspection of these remains would assist in the interpretation of this discovery.

In turn, this clarification can contribute to the construction of the object biographies of artefacts that are candidates for the application of a full biography by considering the excavation location and context. As Diindjian (2001) reminds us, material culture is a limitless source of information.

Affective and effective presentation and responses to Holocaust exhibits are explored in the literature review chapter and across the whole research paper. Previous author research at Auschwitz-Birkenau (2015 and 2016) identified an overall effective theme at Auschwitz 1.

An underlying concern highlighted by this research is whether 'success' and 'desired or intended result' effectiveness equates to shocking audiences across some Holocaust dissemination platforms. Crucially, it has to be acknowledged that a reaction of 'shock' does not encourage empathy but is rather a primitive physiological 'startle' response.

To some extent this is confirmed by the age guide for entry into the museum as fourteen years old. An effective presentation of Holocaust material equates to informing through 'shock' and often focuses on the scale and methods of death. This research challenges this approach and has contributed by demonstrating how observer's emotional responses are encouraged through the introduction of an object biographical presentation. It is worth acknowledging that persistent exposure to harrowing material can result in extinction, as mentioned above (Hansen-Glucklich 2014). This was experienced from the authors five years research experience and observing archival images too harrowing for the public domain, but also raises concerns regarding the possibility of observer extinction during a two-hour Holocaust museum experience. It is possible that effective exhibits engage and shock at the start of a visit but that this effect diminishes with continued exposure. It is challenging when faced with comparing literature and opinion supporting an affective approach with a continued effective presentation at high profile Holocaust sites such as Auschwitz-Birkenau. However, an affective engagement that encourages empathy and invites an individual connection may resonate with an observer throughout and crucially beyond their visit (Tyng et al 2017; Savenije 2017). It is the author opinion that the dissemination of the Holocaust is

more credible when historical and tactile materials are presented as evidence of atrocity. Without these elements we are reliant on effective exhibits and possibly an interpretation of events that relies on impressing audiences with the latest technology, but fails to encourage an affect. What is apparent is that the context, political backdrop, method and scale of death are a prevalent and a necessary theme across various Holocaust dissemination platforms, but the individual experience may be limited.

This research does not discount the need to present evidence relating to the context and the magnitude of the Holocaust, the cruelty and the barbaric treatment of prisoners including the methods of torture and death. However, it is vital to limit the portrayal of Holocaust victims as a 'mass', stripped of dignity and portrayed as the Nazis would perceive them; a faceless mass of inferior human beings.

In relation to Lowenthal (cited in Smith and Campbell 2015; 7) and concerns regarding 'too much empathy' and the loss of historical 'hard facts' across museum exhibits, the author dismisses this argument and whilst reiterating the importance of hard facts and demographics, Lowenthal's position appears naïve regarding the dissemination and longevity of empathy and affective material. This research does emphasise the crucial inclusion of Holocaust 'hard facts' and argues that no amount of or lack of empathy can alter or diminish those. Whilst visitors need to be in a sound emotional state during their experience to fully absorb the information provided, it is also dictatorial to criticise or limit an individual's emotional reactions. Furthermore, if we subscribe to Lowenthal's approach and remove the empathy and educational components from these establishments then we must accept a return to basic antiquity and simple collections. We must also be prepared to suggest that individuals are not capable of regulating and exploring their emotions or form an independent opinion. To visit a museum/heritage site and feel or learn nothing is a pointless exercise. This research embraces human emotions but expresses concern with reference to visitors only experiencing 'shock' resulting in less opportunity for empathy, identification and ultimately limiting the visitor age and retention of information across all age groups. It is the opinion of the author that many sites responsible for Holocaust education and dissemination seemingly apply an effective form of presentation, throughout their exhibits. Young (cited in Hansen-Glucklich 2014; 147) echoes this:

"*in a perversely ironic twist…force us to recall the victims as the Germans have remembered them to us: in the collected debris of a destroyed civilisation*".

The literature review invites a discussion regarding the contribution of object biographies for dissemination and further Holocaust enquiry. It is fair to say that this research is not an attempt to reinvent the 'exhibit format wheel' and is not intended as a heritage critic rather a consideration of affective inclusions. Narratives of people and objects are obviously commonplace in museum exhibits across numerous genres. We can visit a museum and observe artefacts with a textual overview of its age and function. We can encounter photographic displays of individuals and read a brief account of their background and role in historical events. However, what is exclusive about this Holocaust object biographical approach is the presentation of a tactile object, a genuine artefact that was used, worn or treasured by an individual during a horrific event in history. Not only is the object there as a tangible confirmation that what occurred was real but the extended detail and an invitation to acknowledge and 'meet' the owner encourages identification, empathy and ultimately affects observers. One shoe amongst a pile of thousands does not invite empathy or a connection but simply effectively displays the scale of death.

In contrast to Hodder (2012) introduced in the literature review chapter, this research does not consider the 'death' of an object to necessarily be at the point of loss or disposal. As Bradley (1998) suggests; an object can be used beyond its original purpose and by a variety of owners, with each new function or/and owner the layers of narratives increase. This is supported by Crook (2019) when considering the value assigned to material culture and is discussed below within the 'value debate'. Retrieval, research and inclusion within a dissemination platform extends this 'life' and human interaction. However, what is a concern is the 'death' of in situ surface and sub-surface material culture that will not be retrieved, researched and valued. In addition, the lack of proactive archaeology limits the opportunities to discover those items and capsules of information that Holocaust victims deliberately deposited for our reference. It is our responsibility to unearth this evidence that individuals risked their lives to deposit.

Literature surrounding the limitations of object biographies was introduced in the literature review chapter. A major consideration is that of remaining objective during

the interpretation process and allowing an object led and a degree of flexibility with regards to the research process. A multi-disciplinary approach, to some extent, manages this process and monitors the accuracy of interpretation (Schofield et al 2019)

Tilley (2001) warns against the need to search for an underlying grammar and the strict categorisation of material culture. Whilst the roots and principles of this theory are connected to processualism and archaeological theory has evolved, one must still be cautious and avoid being distracted by a desire to categorise and make assumptions within the biography. For instance, not every example of a prisoner calendar previously mentioned will be a form of prisoner resistance and/or religious observation. As Dannehl (2009) reminds us, and was a principle of this research; each item should be examined in relation to its exclusive qualities and not be required to fit into an assemblage. An object biography should focus on the subject against a context with the express purpose of highlighting exceptional or unusual features. This research has been stringent in ensuring that this temptation did not dominate any interpretations. Whilst categories were applied to aid interpretation alongside spatial data, these categories were based on simple observations and without assumption or speculation. This was necessary to determine which object types resonated with observers. Sweeping assumptions, such as- a fertility or spiritual effigy were obviously avoided. Literature explaining the disadvantages of categorising is also relevant to this research when considering adapted objects and change of ownership. Identifying the origin of material or manufacture does not necessarily determine the prisoners' nationality and one should avoid making assumptions in any interpretation.

An additional frustration and limitation with regards to compiling an accurate object biography discovered during the research process is the restrictions on access to certain documentation. Dispersed and disjointed archives confuse research attempts and are often met with no reply, limited or lengthy enquiry responses. The ID tag owner, Annie Kapper and her family, for instance, had social services documents on file in the Netherlands. However, these documents are only accessible to family members of which there are none surviving.

Obviously, in order to present a full object biography a consideration of text limitations is a major concern. Audience fatigue, ease of access to text in a busy museum setting and avoiding 'bottle necks' within exhibits is a crucial consideration. Sturdy Colls and

Branthwaite and Dunstone (2016) explore artistic responses to presenting Holocaust material culture at the former camp Treblinka in Poland. This research also presents alternative formats that address these concerns. Pictorial depictions can be a powerful medium and whilst text is required to affectively portray a biography this can be achieved by embracing basic technology such as smart phones and QR (Quick Response) codes or museum beacons. This approach allows an observer to engage, to whatever depth they require during their visit, but also download information for access beyond their visit. This results in a more personally tailored and individualistic experience and allows extended text for those keen to explore an object biography further. Indoor and outdoor seated areas for reflection and reading the downloaded exhibit material can ease the 'conveyer belt' experience at busy high-profile sites. Appendix 3 presents the authors proposals.

This research also explored further debate and controversy surrounding the 'value' of Holocaust material culture. The author proposes that the potential of this material should not be underestimated as we lose survivors and their testimonies.

As highlighted in the literature review chapter; the term 'value' can be defined in several ways, including original value, monetary worth and the historical value and contribution to knowledge. A consideration of research value and the role of this material culture in exhibits and as a tool for dissemination is also a discussion point. It is tempting to assign several values to an object based on its type and condition at the point of discovery. As Crook (2019) highlights; this does not necessarily reflect the objects value history and narrative. These could be termed immediate values, based on simple observation; we can easily recognise gold, diamonds, a religious effigy or a dated coin. What are less obvious immediately are any indicators of the original value to the owner, any value transferred if exchanged and the contribution this basic object could provide to research, historical knowledge and dissemination.

The 'value' debate includes Carr (2017; 2018) who explores the change in value of Holocaust material culture and does consider the various definitions when assigning value to Holocaust artefacts. However, this research has introduced concern regarding damage and deterioration for surface and sub-surface Holocaust material culture and whether this material culture is considered valuable enough to preserve. Absence and loss are recurrent themes across Holocaust memorials and mainly refers to the absence

of generations of a specific culture and the loss of these individuals across Europe. Bergqvist-Ryden (2017) also expresses concern regarding the abandoned heritage of these individuals that is not visible, ignored and unpreserved. However, what is often more apparent than unexcavated spaces due to archaeological restrictions, and empty voids; is a blatant unaddressed, visible presence and tactile evidence of lives particularly surface artefacts exposed to the rigours of foot traffic at high profile sites, and the climate. Simple author visual observations at Auschwitz-Birkenau provide a basic indication of the variety and quantity of such surface objects and their vulnerability to this foot traffic, exposure and potential theft. Certain items are so obvious to the layman's naked eye that one could argue it requires greater effort to ignore its presence than it would to report it for expert removal, preservation and documentation. It is problematic however that attempts to preserve significant site structures, encourage dissemination, invite site access and educate has resulted in a focus on specific sites. The theme of absence and loss across Holocaust sites fails to address this readily available and visible surface evidence of events and human existence. Whilst the individuals are absent and the loss of generations are mourned, the presence of and the potential contribution from material culture is far from absent, but will be lost.

The author proposes that monetary 'value' introduced in the literature review chapter (Carr 2107) is a result of dark tourism and demonstrated by material from high profile sites, such as Auschwitz-Birkenau, demanding a higher price on auction platforms than material from lesser known Holocaust sites (Nicol and Murphy 2013). A small metal identification tag from Sobibór has no true monetary value; the real 'value' ascribed to this object is achieved through its historical and cultural significance, its emotional impact and its contribution to an understanding of events during the Holocaust. As previously mentioned, regarding the monetary value of Holocaust objects that do have a biography attached: this obviously could impact on their cash value. However, rather than leaving surface material culture as a target for theft, undocumented removal, loss of context and amateur research across Holocaust sites, expert surveys and collection should be permitted and encouraged. This would result in an irrelevant monetary value as these objects would be in the safe confines of museum research department.

The contradiction regarding the proposed historical value of Holocaust artefacts and the neglect of these very items is difficult to comprehend. It is possible that heritage

revenue takes precedence over retrieving, researching and valuing remaining surface Holocaust evidence. The UK Holocaust Education Trust Chief executives response to the 2015 British school boys' theft of items from Auschwitz-Birkenau (Day 2017) as 'gross disregard to the memory of the Holocaust 'is understandable but again raises the question of hypocrisy when considering the abundance of disregarded surface objects. In the defence of the site governance reaction; one could argue that whilst ever items remain on site they are at very least in their original location and within context. However, this fails to address the likelihood of future theft attempts and the deterioration and ultimate loss of artefacts with 'special cultural significance'. It would not be unreasonable to ask how these schoolboys were expected to realise the 'value' and importance of items discarded as surplus on the surface. Surely, items of significance would have been previously collected, recorded and available to view in a museum exhibit? Are these Holocaust artefacts only ascribed value when someone attempts to remove them from plain sight on the open ground? Author visits, observations and a photographic record have confirmed that a large quantity of artefacts are visible, including glass bottles near crematorium buildings at Birkenau, pottery fragments near the sorting area and broken ceramic insulators for electric fences throughout the camp grounds. It is difficult to accept that historical and research value has been assigned to these items that are clearly un recorded and exposed.

Previous author research visits and observations at the Auschwitz-Birkenau site echo Bergquist-Ryden (2017) and concern regarding 'invisible heritage' particularly the material culture that is ignored and unpreserved. A healthy tourism revenue resulting in a basic monetary value for items from there, could impact on archaeological projects. This includes research that is committed to assigning significant historical and research value to the material culture that lies abandoned on the surface. From examining the literature, the author proposes, in response to Carr's question of whether camp hierarchy corresponds with artefact value, with a clear 'Yes' when referring to monetary value, but regretfully and possibly controversially 'No' currently, regarding any research potential or historical value, unless that 'value' is attached by an individual visitor who has a connection to a specific site It could be concluded; if an object is truly *valued* then price is irrelevant.

For research purposes and a consideration of historical and knowledge value, the inspection of material culture can contribute to the interpretation of site structures,

layouts, function, human motivation and mass grave sizes and their locations. This evolving field of research now utilises this research for exploring the more intimate detail such as prisoner living conditions, experience and personal testimonies before and during internment. This ultimately requires an increase in material culture-based studies and assists in exploring the 'what and why' questions posed regarding specific objects. Due to the Nazi programme of demolishing obvious concentration camp facilities, it is the early Holocaust research of historians and archaeologists that provide us with the physical foundations and a context within a specific landscape to extend, refine and explore the significance of objects connected to the Holocaust. This research is concerned with investigation beyond the 'obvious' or known facts and whilst utilising these foundations, this research will acknowledge the wealth of further detail that can be extracted from Holocaust material culture. It is worth considering that the absence of material culture can also assist interpretation when examining the dynamics of different concentration camp types. For instance, a death camp such as Sobibór will present minimal evidence of 'prisoner' life, limited 'prisoner' art or graffiti and limited stashing of objects or written testimony. This can contrast with concentration camps such as Auschwitz-Birkenau were prisoners had the time and opportunity to plan; stash, produce art and leave 'graffiti' messages for our information (Jebson 2018 **Unpublished**)

As Whitely (2002) highlights; objects can hold their historical value when a biography is realised. This research has explored this principle and similar to Crook (2019) has considered detail and value that is not immediately obvious but can often be realised and contribute to research and knowledge about the Holocaust. With reference to Fletcher (2002) who claims that 'material possesses inertia' this may provide an insight into why people feel compelled to touch and hold items that have been held by significant people in history. It is difficult not to attach a 'history' to objects when considering the movement, interaction, adaptations and significance to the owner/s. This influence on observers compliments the author's previous comments regarding tactile objects and affectiveness, especially when the observer has access to the owners' life story and experience. This would be akin to holding the original Anne Frank diary and combining knowledge of her short life with an item she touched and treasured. With reference to the literature reviewed, this research and a relationship between the affect and value of an object associated with the Holocaust; it could be argued that the

true value is realised when the biography of an object and its relationship to an individual is revealed.

Young (1993) considered the limitations of exhibits that simply present heaps of artefacts. This research proposes this is necessary to assist with visualising the sheer scale of death during the Holocaust, but that an individualistic dimension could be more regularly included to encourage empathy and observer engagement. Popescu (2020) provides a recent study that supports this approach when considering students response to a Holocaust exhibition. Some students expressed frustration with exhibits that were dimly lit and the problems with reading the text associated with a specific artefact. This suggests a level of curiosity and a desire to be further informed about an object. Indeed, this research noted a high curiosity level across several questionnaire items that were unfamiliar or had limited textual detail. Similarly, Savenije (2017) concluded that a feeling of connection with people involved in World War Two through objects, encouraged interest and empathy.

In sharp contrast to the dangers of extinction from viewing the display of artefacts on mass is the dissemination style adopted by the Jewish Museum. Berlin. Whilst this museum is dedicated to Jewish history, culture and religion and not solely the Holocaust, this contemporary facility contains no Holocaust material culture. As Stevens (2009) identifies, it appears to focus on a plethora of unrelated displays and stimuli. It is possible that this visitor would leave with a re-deeming memory of impressive museum architecture, lighting and a thrill effect. The absence of specific cultures, faiths and individuals should not be used as an excuse to exclude material culture that resonates with visitors but deemed too shabby to be included in a contemporary exhibit. In short, in order to highlight their absence, it is necessary to provide evidence of their original presence.

It would appear that a middle ground is required with regards to exhibit style and dissemination/educational value. As with this research, Popescu (2020) and Savenije (2016) research has shown tangible objects are an affective method of dissemination by encouraging interest and further enquiry. This appears particularly affective when observers are allowed to move beyond shock and learn about one individual isolated from a crowd.

The challenges and research restrictions for Holocaust archaeology were introduced in the literature review chapter. Generally, research can be hampered by the lack of early Holocaust site archaeological excavation detail and access to archived materials. This challenges the overall research approach of answering the 'where, why and what' questions and limits the possibility of creating accurate object biographies for a considerable quantity of early excavated Holocaust material culture. Requests for access to Holocaust documentation can be problematic and a lengthy procedure. The complicated regulations alongside a fear and suspicion surrounding archaeology projects at Holocaust sites equates to a very limited arena for research.

As previously highlighted, the finer 'where' detail such as the precise excavation location can be elusive. Questions of 'why' regarding whether it was accidentally deposited or deliberately concealed and the 'what' detail pertaining to the object dimensions, material and condition are often difficult to access. This ultimately impacts on the ease and accuracy of constructing an object biography that embraces details previously considered. Holocaust site access can be a lengthy administrative procedure, differing attitudes regarding archaeological work, complicated regulations differ across countries and various personal opinions of Rabbis regarding excavations (Sturdy Colls 2012) can limit research potential. It is due to this minimal site and artefact detail that the material culture chosen for the application of an object biography was accessed through institutions and from Holocaust studies that does have supplementary detail available in the research arena.

Further problems are encountered from commissioned, reactive excavations, the restrictions for research potential (Eickhoff 2016) and the fate of the portable material culture unearthed as demonstrated by a Sobibór research project (Schute 2017). Artefacts were collected by the State Museum of Majdanek for exhibit purposes and not available for further external archaeological research. That is not to suggest a simple return to antiquarianism, however; it is unfortunate that expert external opinion is not included during post excavation discussions, potentially providing a more diverse and fluid interpretative process. This to some extent again supports Van de Laarse's concerns (2019) regarding the possibility of different countries politics and a desire to interpret to suit a nation's narrative. This is a concern when considering the rigours of archaeology to apply a scientific methodology, research flexibility and objective interpretation but may equate to; archaeologists undertake the fieldwork, present the

material culture and it will then be disseminated to suit a specific agenda. As highlighted by Schute (2017) collaboration is not always robust and site dynamics can restrict research. It is of concern that archaeology at Holocaust sites may be viewed as a necessary requirement and inconvenience ahead of a planned visitor centre.

However, as proposed by Van de Laarse (2019) political pressures on the portrayal of events, to suit a nation's narrative can impact interpretation beyond the archaeologist's specialist view and control. This subtle political agenda can result in a diluted version of the original site report and undermine the credibility regarding the objectivity of this discipline. Critics of the author insistence concerning archaeological objectivity may counter by proposing that an archaeologist will research and excavate sites that appeal to their specific interests and academic speciality. Critics may propose that this equates to arriving on site with a pre-set agenda, for instance; the search for evidence of atrocity. However, whilst this is an accurate depiction of the initial planning stages of archaeological project objectives, it fails to acknowledge the flexibility, interpretative caution and the willingness of archaeologists to embrace an object led approach.

As highlighted in the literature review chapter Hansen-Glucklich (2014) and Young (1994) consider a nation specific interpretation, which could be akin to the historical documentation textual bias previously introduced by Myers (2008) in the form of interpretative bias. This concern regarding nation specific interpretation also echoes Van de Laarse's (2019) concerns, mentioned earlier, regarding possible political pressure on interpretations. This adds an additional dimension to the unconscious barriers faced by Holocaust museum visitors. One must consider that a visitor at some sites; must be above a certain age group, will be expected to access and understand all the textual historical and contextual detail in a relatively short space of time and in restricted spaces and should be aware that information provided may be presented in a way that is relevant to the location of the museum. Additionally, a visitor must be prepared to face a multitude of graphic images of piles of victims and heaps of often non affective material culture and be mindful that their personal reaction to these may diminish over their visit. It is possible to leave Auschwitz-Birkenau, as an example, feeling overwhelmed with information, shocked, slightly confused and effected by the scale of death. In contrast, that same visitor at the Berlin Jewish Museum will not experience any material culture, heaped or otherwise and may be subjected to a subtle

difference in the portrayal of the dynamics of the Holocaust. To add to the discussion it must be acknowledged that some critics of archaeological interpretation of material culture retrieved from Holocaust sites do not appear concerned with the suggestion of nation specific interpretations that form the basis of most Holocaust museum introductory exhibits and are beyond the control of an archaeological project remit. This research has contributed with regards to demonstrating the rigorous procedures undertaken by archaeologists to provide objective interpretations, utilising raw material evidence and a research flexibility, but has also recognised the possibility of interpretative adaptations beyond the initial archaeological fieldwork report.

This research briefly introduced literature concerning a 'collective memory' of the Holocaust. The author proposes that this is an unrealistic concept, not only due to the misuse of the term 'memory' but when considering individual differences across audiences and the various dynamics of presentations. Similar to Savenije's (2017) concept of 'historical empathy' this research proposes a 'mindful understanding'. This can be defined as; presenting the hard facts regarding the Holocaust as a foundation but supporting awareness that interpretations and dissemination priorities may differ across various platforms.

As this research has demonstrated audience demographics can relate to and produce differing emotive responses. This suggests that there is no 'collective' experience or memory but that we are unique in our reaction to Holocaust material. Stier (cited in Hansen-Glucklich 2014) proposes that memory is shaped by the way information is communicated. This could be more accurately worded as; understanding and individual affect is influenced by the way information is communicated. This research maintains that this individual affect can be enhanced with the inclusion of object biographies and beyond the collective understanding of the history of the Holocaust; there is no 'collective' experience.

The concept of a 'collective' experience is further challenged when considering the variety and style of interpretations and presentation beyond the control of the archaeologist. If the visitor experience is different across various Holocaust museums, based on a specific nation's interpretation (Van de Laarse 2019) then it is impossible to claim a 'collective' experience, unless there was only one Holocaust museum available

and every visitor emotional reaction was identical. One must consider whether the only 'collective experience' that is guaranteed at present is that of 'shock'.

5.3 Practical and further research recommendations

Whilst it would be an enormous undertaking, a standardised recording and central database of all Holocaust material would be an invaluable tool for assisting research and compiling educational material. In addition, it would ensure a concise and a full historical record of this period. This research would have benefited from such a database and it does invite the questions; how much more would research have advanced across multiple disciplines with an ease of access to Holocaust archives and material? How much would this compilation of documentation, testimony and material culture and a central comparative platform contributed to our knowledge of the Holocaust? An alternative to a central database holding all information would be a central hub that provided a guide and links to all external sites and resources based on research themes. This would allow researchers and educators to be directed to a variety of international sources relating to their specific enquiry.

An additional recommendation considered throughout this research is addressing the lack of Holocaust studies academic programmes, including Holocaust archaeology. This is an under-represented discipline across higher education. In the UK (2020) there are limited platforms dedicated to the study of the Holocaust, of which one programme is within the field of forensic archaeology (Staffordshire University). This ultimately restricts the quantity of research, academic collaboration and discourse. An immediate concern is that this subject will disappear from higher education modules entirely. The theme of more recent atrocity and societal prejudice is particularly relevant in 2020 and the inclusion of the Holocaust as a module across several disciplines, including archaeology, would be invaluable for a multi- disciplinary examination of this historical event. The Holocaust is still within living memory and as such is relatable and transferable examples of prejudice, propaganda, hate crimes, societal intolerance and the ultimate consequences. A commitment to 'never again' has already been compromised with atrocities beyond the Holocaust. Without a comprehensive understanding of these events 'never again' will continue to be played on repeat.

A controversial, but not exclusive proposal resulting from this research is the need to appreciate the specific contribution of Holocaust archaeology and allow pro-active site

research. The vast majority of Holocaust archaeology is in response to planned monuments, visitor centres, intrusive maintenance and conservation projects. This fails to encourage original Holocaust site enquiry, it fails to invite independent questions and results in the breadth of research being determined by a restricted site remit, both in permissions and area. This is a challenge for a contextual interpretation which is vital for a full site archaeological investigation. The excavation of a section of a site intended for development without access to the wider site context can compromise and be challenging for interpretation. The requirements for the development of a Holocaust site for commercial purposes may well take precedent over the accurate and full interpretation achievable through a full archaeological investigation. A proactive approach and casting 'a wider research net' as previously considered, can only contribute to existing knowledge. This pro-active approach should extend to all, including lesser known Holocaust sites and aim to fully document and retrieve material culture that is in danger of perishing in situ.

Reducing an inherent suspicion surrounding Holocaust site archaeology should be a priority across the discipline and site curators. A collaboration between researchers and Holocaust site curators could be beneficial for both parties. Transparent and non-intrusive excavations, open to visitor observations could help to dispel concerns regarding deep excavations. Archaeological project outreach, presentations and educational workshops would encourage a pro-active and long-term commitment to site research and would also be feasible at the most high-profile sites. This approach and collaboration would not restrict visitor numbers and revenue but rather enhance the site experience, visitor engagement and encourage return visits. During an undergraduate research visit to Auschwitz-Birkenau the author met a British father, mother and teenage daughter who visited every year with the specific intent of fully exploring both camps in detail. In some regards it was a family longitudinal research project and they were intrigued with my research. It would be likely that this family, and many other repeat visitors, would be drawn to research updates, archaeological progress and additional knowledge with each visit.

A major theme throughout this research has been the contrast between effective and affective exhibitions and the variety of approaches demonstrated across Holocaust museums. The author maintains that an effective format is prevalent but that a balance is achievable. This involves the presentation of the historical and political context,

representations of the magnitude and demographics of the Holocaust and the detail of the methods of execution. However, incorporating more affective exhibits including object biographies and a consideration of the object types displayed would redefine not only the Holocaust museum experience but the extended impact on a visitor after leaving the museum.

It is inevitable that as technology advances, museums will increasingly be required to embrace a multitude of alternative mediums and formats. However, it is crucial that a genuine authenticity is maintained regarding some events, such as the Holocaust. Again, a balance between the accurate depiction of this period and the introduction of popular technology to assist with the dissemination of information is achievable. This research has constantly reinforced the need for an informative platform regarding the historical context, demographics and the horror of the Holocaust. The author, immersed in archaeology, fully appreciates the fascination with history, death and macabre spaces. The Holocaust however invites a deeper insight that explores beyond the scale, methods and spaces associated with death. It is a recent example of the result of prejudice, discrimination and power and is a powerful reminder of how we could and should encourage tolerance across the human race. This is only possible if we can relate to those individuals that have experienced persecution. We cannot relate to an unimaginable number of people, nor have a collective memory of the hunger, pain and moments before entering the gas chambers. Whilst this can often be what initially draws an audience in, we are all usually searching for a common denominator within that population. For those that engage with Holocaust sites it would be progressive if they could affirm their knowledge of the Holocaust but crucially experience empathy, further enquiry and an affective encounter. A respect for the necessity of a historical foundation, the role of original meaningful spaces, the inclusion of object biographies encouraging a connection with an individual and a need to embrace subtle technology to encourage dissemination has been proposed. Proposals for how this could be achieved are presented in Appendix 3.

5.4 Discussion chapter conclusions

This chapter has provided a discussion of the questionnaire results regarding the main research question and the three supplementary questions. The interpretation of these results has been discussed with regards to how they address the research enquiries,

contribute to this field and how further research would be beneficial. The implications regarding previous research, introduced in chapter two literature review have been individually considered and discussed. This includes considering how this research has contributed to, or challenged previous research and highlighted the value of archaeological access and interpretation with regards to creating an object biography.

The debates and controversy surrounding this subject have been addressed and the author has been forthright in challenging the current effective exhibit prevalence at Holocaust sites. Concerns regarding nation specific interpretation and dissemination alongside the limitations of a 'collective memory', the lack of site and archive access and a general lack of understanding and appreciation of Holocaust archaeology have also been considered.

Practical recommendations across Holocaust dissemination platforms and the ease of access for further research have been discussed with an emphasis on the sense of urgency, the benefits of a multi-disciplinary approach and evolving to suit current and future audience demands. The urgency regarding the attention to detail of the Holocaust cannot be underestimated. Whilst still respecting Halacha law, we could reveal so much more Holocaust detail that would contribute to a total understanding of this atrocity. Restrictions on research, a fear of archaeology and concerns regarding reduced revenue if sites are inaccessible due to archaeology can be overcome.

The following Conclusion chapter will concisely summarise the research findings. This chapter will also include a reflective research appraisal with regards to what was learnt, what was unexpected from the research results and also the research experience under unusual circumstances (Covid 19). Finally, a consideration of research progression is introduced and demonstrates the author commitment to this field of academia.

CHAPTER SIX: CONCLUSION

This chapter presents a brief summary of the questionnaire exercise and the results and the overall contribution to research. The research methodology is considered and possible additions that would be beneficial and initiate further investigation are highlighted. Recommendations are provided to consider how proactive research, site access and an appreciation of the contribution of archaeology at Holocaust sites could be beneficial for future research, affective museum exhibits and on site dissemination. A final author note is presented as a conclusion to the dissertation.

6.1 Summary of research: A brief summary of the questionnaire exercise and results

A questionnaire was designed to include ten images of Holocaust artefacts. Six of these images were accompanied by basic descriptive text and four of these images were accompanied by object biographical detail which included information regarding the object's owner. Participants were presented with seven emotional response words and asked to tick each emotion experienced for each image. A total of 120 participants completed the questionnaire. From the results of the questionnaire, this research concludes that a Holocaust artefact when accompanied by an object biography has a greater emotional affect on an audience than an object without a biography'. Additionally, specific object types have a greater emotional affect than some other object types. Statistical testing revealed higher emotional response scores correlate with a questionnaire participant being female, whilst being cautious not to generalise as there were more female participants than male participants. No correlation or linear relationship was identified between specific age groups and emotional response scores. However, further testing demonstrated that there is a statistically significant difference between the emotional response scores of the three age groups of participants.

6.2 A summary of the contribution to research

The majority of this research has supported previous literature and contributed to the field of archaeology regarding the interpretative role of material culture, including material associated with the Holocaust. Additionally, this research contribution has highlighted and expanded on areas of debate, contradictions and challenges. Further debate, supported by the results of this research and previous literature has been

introduced regarding specific areas of concern regarding the affective dissemination of Holocaust material culture.

Archaeological literature provided a general understanding of the historical role of material culture and how considerations of human agency and the inclusion of the main actors' motivations have been included. This research compliments an individualistic approach and the principle of an object driven method (Herman 1992 cited in Cole 2013). This was crucial for appreciating how an objective and reliable interpretation is possible by allowing the artefact to guide the research.

A thorough understanding of the Holocaust including the political context and European demographics was a further pre requisite for this research. Further literature introduced Holocaust site archaeological projects and interpretations for tactile artefacts, site layout and building remains. This literature was vital for understanding the historical context of the Holocaust but also the interpretative process and contributions that ultimately inform the construction of a new object biography for this research. This research supports the proposal that Holocaust archaeology is a discipline capable of fillings gaps (Gilead et al 2009) and provides the more intimate detail of Holocaust site dynamics. Numerous examples of the interpretation of Holocaust site material culture have been presented. This includes the material culture that supports spatial and structural proposals, the site dynamics and the possible motivations of individuals. The differences in material culture across various Holocaust sites are also revealed when considering the differences between concentration/work camps and facilities that were designed for immediate death, such as Sobibór.

However, this research extends this approach beyond the immediate site of excavation and how objects can assist with site interpretation by considering how an object might inform about a life before death. An object biographical approach allowed an introduction to the person who owned a particular object, their home, family and life experience leading up to their arrest and deportation due to their Jewish heritage. Additional literature explored various debates and controversy across the discipline of Holocaust archaeology. This included whether value is attached to an object once its biography is revealed and an affect is produced. This author consideration was initiated by Carr's (2017) discussion regarding the 'change in value' of this material culture across its journey of original ownership, being discarded and remaining in situ or

retrieval. Carr also presented a consideration of differing values of artefacts corresponding with the hierarchy of Holocaust sites. This research contributed to this debate by proposing recognition of the historical narrative and emotive value of a Holocaust object when considering the potential affect of such material. This also highlighted a possible void in research to date. This includes fully addressing the subject of value but also the contradiction regarding the importance of these artefacts and the issue of surface and sub surface vulnerabilities. Are these items being preserved in situ and contributing to our knowledge and interpretations? Or, do they remain in context but unrecorded, deteriorating and exposed to theft due to a monetary value? It could be argued when considering the 'change in value' proposed by Carr that this material has evolved. From prisoner ownership and the significant value it may have held for them as a sentimental or practical item vital for survival, to a loss of value when it was discarded, then finally and ideally; retrieval and research and a reinstatement of value based on their potential affect, as demonstrated by this research.

The author echoes Bergquist-Ryden (2017) and concerns regarding 'invisible heritage' and proposes that this material could remain invisible and unvalued, akin to the loss of value when discarded. This research also supports Whitely (2002) and the proposal that objects can hold emotive value due to their biographies. However, as highlighted in the literature review chapter, the author maintains that 'invisible' is not always the case and often Holocaust artefacts are visible and would not require intrusive excavation. This research has contributed to the debate surrounding proactive archaeological projects. If proactive enquiry is restricted or often impossible, then how can this wealth of material culture be protected and achieve the value associated with its role in an historical event and the emotive value and affect for the future dissemination of the Holocaust? A value confirmed by Holocaust site officials regarding the theft of these visible items and their response with legal action (Day 2017). This research concludes that if this material is valuable then allow it to be removed, researched and appreciated. However, if this material is surplus, undervalued and proactive archaeology would restrict visitor access and visitor numbers, then ultimately this material culture will be lost through theft or damage and deterioration and cannot be deemed as valuable when compared to loss of visitor revenue.

When considering the lack of excavation context from early archaeological excavations and the enormous quantity of archived material culture lacking this crucial detail, it

would be sensible to suggest an appreciation of the concerns of archaeologists regarding the importance and future of this material. This research has contributed to highlighting the concerns of experienced Holocaust archaeologists and has fully considered the initial challenges of accessing archived material culture and context. Restrictions for proactive projects, the possibility of adapted and nation specific interpretation beyond a reactive archaeological project has also been explored (Van de Laarse 2019). Contradictions regarding the 'lip service' paid to the value of Holocaust material culture and the practical reality have been addressed and challenged. Controversially this research considers a current ethos of; as a Holocaust site we are required by law to permit a reactive archaeological investigation ahead of a planned memorial or visitor centre however, this investigation will be within a designated area, will not encourage additional enquiry and a final interpretation may be adjusted to suit a nation's agenda.

This introduced a consideration of the proposal of 'collective memory' as presented in the Discussion chapter. This research has encouraged further debate regarding the concept and reality of this approach and supports Savenije's (2017) concept of 'historical empathy' with a proposal of a 'mindful understanding' of the context and facts surrounding the Holocaust. This research has invited a consideration of whether 'collective' is achievable beyond a universal acceptance of the context and demographics of the Holocaust. The research results have demonstrated that an individual's reaction to Holocaust material is exclusive and personal. Whilst the inclusion of an object biography can increase an emotional response, we cannot define this as 'collective' due to the many personal factors that may have influenced an emotional response. Van de Laarse (2019) also considered the various nation specific interpretations and presentations of the Holocaust. This research has also echoes this concern with regards to attempting a 'collective memory' based on differing interpretations and the narratives available and proposes that the only collective experience for observers is that of shock.

In relation to Lowenthal (cited in Smith and Campbell 2015; 7) and concerns regarding 'too much empathy' this research has challenged this theory for underestimating the intelligence of visitors and attempting to regulate emotional responses. This research has constantly acknowledged the need for a foundation of the documented Holocaust historical context and demographics. However, these statistics do not sufficiently

resonate with an audience as they are not relatable. What *is* relatable is an insight into and a connection with an individual's experience of the Holocaust and their life before persecution.

6.3 Research methodology appraisal and possible additions

It is worth acknowledging that visitors to Holocaust sites and museums are rarely spontaneous but mostly planned visits with some degree of private research beforehand. Effective exhibits pertaining to the demographics of the Holocaust including the scale and methods of death are vital to reinforce and enhance a visitors existing knowledge. However, what was apparent throughout this research was an underlying desire from observers to discover a common connection with an individual prisoner. This familiarity appears to be what affects us but also horrifies; when we realise that we too may have been subject to persecution.

A questionnaire was a suitable methodology for this research and was chosen to measure the participant's emotional responses. The decision not to produce two questionnaires (one with imagery and object biography text and one with imagery without object biography text) to the same participants was an attempt to avoid demand characteristics (Nicols and Maner 2008). Whilst this quantitative method provided data and tables it did not fully demonstrate the depth of emotion that surrounds the subject of the Holocaust. On reflection, an interview component to the research methods would have been insightful. This could have involved informally interviewing individuals that had previously visited a Holocaust museum and explored their emotions and experiences of exhibits, items that resonated with them and why. The interview participants could have been chosen to further address the gender and age research results. Due to the Covid 19 restrictions interviews would have been problematic but not impossible and could have been conducted via video call.

The global pandemic of 2020 also required research methodology adjustments regarding visits to Holocaust sites and museums. As such, the author had to rely on research and experiences from previous undergraduate research visits to Auschwitz-Birkenau memorial museum, Poland as an example of a high profile Holocaust site. Fortunately, this had involved a thorough examination of the exhibits predominately at Auschwitz 1 including their content and style of presentation and a full tour of the Birkenau site over several days. However, the research visits to Auschwitz-Birkenau

and Sobibór which were planned for this dissertation would have obviously focused on specifics relevant to this research hypothesis. This would have resulted in a full 'audit' of exhibits and identified the quantity and quality of prisoner artefact displays and the use of object biographies. This research would have been problematic without previous author visits and archive access at this museum as it would have been reliant on online exhibits for this site. Online exhibits across a selection of Holocaust museums were also accessed and included a variety of impressive graphics and virtual tours that offer access to audiences that cannot visit in person. However, in general the author experienced effective online tours and considered that this may be a result of what material is communicated well through a computer screen. Object biographies were often available but embedded in the museum site menu and would more likely to be accessed by an observer, like the author who was searching specifically for this material.

This research may have highlighted a gap in the field of Holocaust dissemination. As we become reliant on technology, virtual tours and experiences how can we ensure that an online Holocaust site visitor engages in an affective experience?

6.4 Recommendations

As a starting point for any research access to literature, previous research and archived material is paramount. This research Discussion chapter has highlighted the frustrations regarding the lack of early archaeological research detail and dissemination, dispersed collections and the challenges for a proactive Holocaust archaeology approach. The Discussion chapter proposed a standardised, central database that allows online access to international archive collections and research. This should be thematically led and include all material, or links to this material, across a currently dispersed international pool of information.

This research has contributed by expressing concerns regarding how the discipline of archaeology should be acknowledged as vital as we lose Holocaust survivors and their testimony. As with an object led approach, it is the final stages of interpretation that draw together all the available material in order to present a concise, considered conclusion and reflect on the issues that have emerged during research. As such; some of these issues are not necessarily embedded within the early dissertation chapters as

they have evolved as a result of this research and author reflection, including; the limited academic programmes encouraging a future generation of Holocaust/atrocity researchers. This should be addressed within the National curriculum but specifically across higher education programmes either as a degree or module exclusive to Holocaust and atrocity studies, or a module incorporated within relevant humanities degree programmes. This includes disciplines such as psychology, sociology, politics and crucially archaeology which would be responsible for retrieving the material culture necessary for further Holocaust enquiry.

An area that has been addressed includes Holocaust site restrictions, a general distrust of archaeological enquiry and a lack of proactive opportunities have been identified as a major concern and frustration across the discipline of archaeology. With these limitations in mind it is necessary to consider how the material currently available is presented and the dissemination techniques that are prevalent today. This research has shown how affective dissemination through a personal connection and an affective approach is viable and could be a valuable addition across Holocaust museums. This research proposes the inclusion of spaces devoted to the *individual* prisoner and the material culture that invites an insight into their life before the Holocaust. An exhibit devoted to how these insights have been achieved through research, including previous archaeological contributions and ideally current projects should be available. Non invasive archaeological projects on Holocaust sites should be visible to visitors allowing questions and visitor engagement, ultimately reducing suspicion and a fear of archaeology at Holocaust sites. This research has highlighted observer curiosity from participants that completed an online questionnaire. The curiosity of those visitors that actively visit such sites has to be worth addressing. Visitors could be invited to subscribe to research updates, to contribute to research through surveys regarding their visit, what information would be beneficial and to be informed regarding international Holocaust events and learning opportunities. At present, as an example, none of this is available to the 2.3 million visitors to Auschwitz-Birkenau.

This research has contributed to considering the practical application of object biographies across Holocaust sites and museums. This includes a consideration of visitor age limitations, effective and affective material presentations and allowing authentic spaces to be respectfully experienced with minimal heritage disruption whilst still embracing technology. Appendix 3 presents proposals for how an affective format

could be incorporated and introduces a personal connection for a Holocaust museum visitor that resonates beyond a guided tour.

A void in research has also been identified beyond the research results include why a relationship between Holocaust site curators and Holocaust archaeologists cannot be negotiated? The inherent fear of archaeology at Holocaust sites needs to be addressed as a matter of urgency and future Holocaust archaeologists should be committed to longitudinal, non invasive research such as GPR and visual surveying. This could embrace visitor enquiry, encourage an interest in current research and add an extra dimension to the site curators measures of museum success.

6.5 Dissertation conclusion: A final author note

The author has strived to present a dissertation that offers both a qualitative and quantitative insight into the impact of Holocaust material culture. Academic writing often dictates the language style and presentation formats for a dissertation. This has provided challenges for the author with regards to expressing the complexity and depth of emotions beyond what is measureable, but still experienced by observers of Holocaust material today. It is the author intention and hope that this research assists with highlighting the importance and urgency of addressing the future of Holocaust dissemination. Familiarity and an acknowledgement of the individual does invite an appreciation of a life before the Holocaust.

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APPENDIX 1 : METHODOLOGY

(i) Sobibór case study

(ii) Artefact analysis sheet

(iii) Questionnaire participant ethics

(iv) Questionnaire

(i) Sobibór case study

This overview of the Sobibór site provides an indication of the depth of information that is required to construct an object biography. It demonstrates the role of the historical context surrounding the circumstances of an objects deposition from both a wide perspective but also a detailed site inspection. For the purpose of this research a particular focus is the excavation location of Annie Kappers' identification tag, the immediate spatial use, structural features and their proposed function. This detail allows an insight into the final journey of an object with its owner and an indication of her Holocaust experience.

This deposition location detail and subsequent object research also provides a wider research contribution with regards to the comparison with other object types within the same area and whether this material culture assists in defining associated spatial and structural function and also the accuracy of historical documentation and witness testimony.

Site History

Sobibór is a village in the district of Gmina Włodawa in eastern Poland. It lies close to the Bug River which forms the border with Belarus and Ukraine.

Figure 7: Location of Sobibór Death camp Figure source: http://www.usd321.com/schools/rjh/marneyg/archived_projects/2002_holocaust_projects/02_wulfkuhle_sobibor.htm

The landscape was swampy and densely wooded with a low population and a village railway station.

Figure 8: View of the ramp and siding of the former Nazi death camp in Sobibór (October 1, 1975). Figure source: http://www.majdanek.eu/pl/news/78__rocznica_rozpoczecia_masowych_deportacji_do_niemieckiego_nazistowskiego/1239

Camp construction

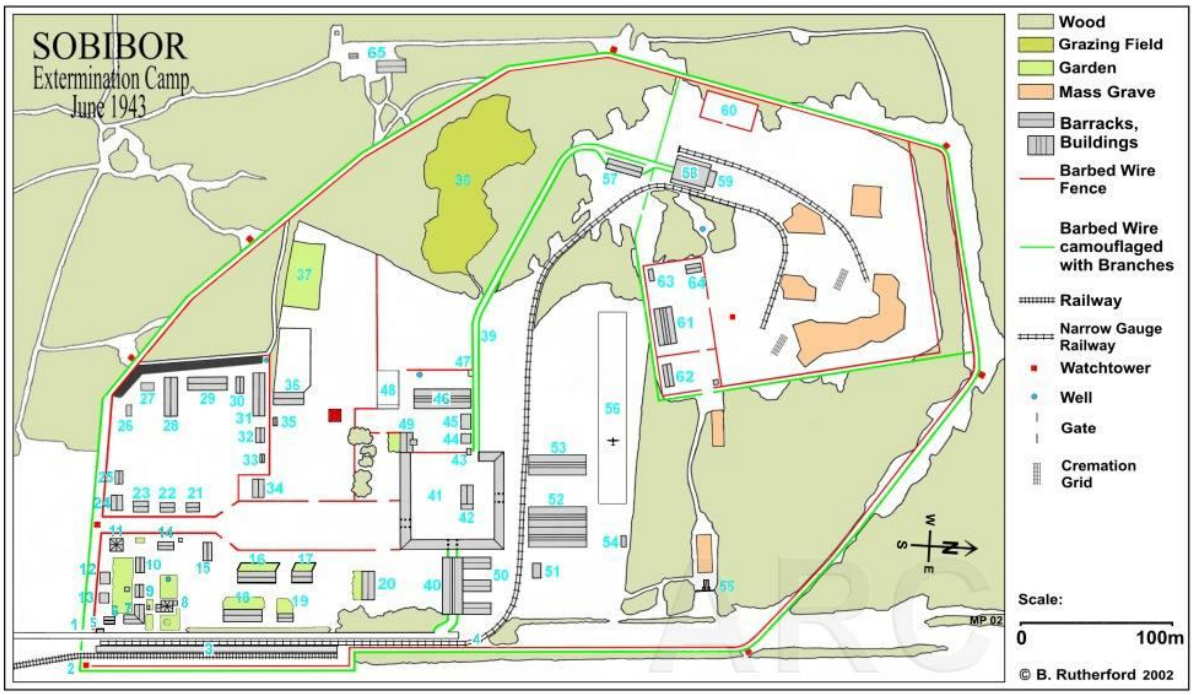
In early1942 construction began at the site to build the extermination facility Sobibór over approximately four square kilometres. Utilising an existing railway line and station, an additional railroad spur to serve the camp was installed in March 1942. The camp perimeter was heavily reinforced with rows of barbed wire three metres high, minefields and water ditches. In addition, the natural swampy terrain beyond the immediate camp perimeter was a deterrent for escape attempts.

The area closest to the train line contained the barracks, kitchen and canteen for the SS guards. The remainder of the camp was divided into three areas. Lager l consisted of workshops, housing for Jewish workers, administrative facilities and a medical storehouse. Lager ll contained an open undressing yard and an office for removing valuables from those arriving. This also included the entrance to the ‘tube’ leading to Lager lll and a ‘barbers’ where their hair was removed. Lager lll contained the gas

chamber building, cremation pits and some mass graves. The original gas chamber was extended in the autumn of 1942 (Webb 2017).

The Sobibór site was constantly developed and adapted over the period of use May 1942- October 1943 including the design of Lager lV which was intended for processing captured ammunition. The camp operations ended following a prisoner uprising on 14th October 1943 after which the Nazis attempted to remove evidence at the site by demolishing structures and intense tree planting. The estimated number of deaths at Sobibór is between 170,000 and 250,000.

The area was abandoned after the war, grave digging and looting occurred on the site (Cuppers et al 2020). The possible distortion of the area by the Nazi programme of tree planting to disguise the site function and post war looting is also a consideration when researching a compromised site; as such interpretations and memorial planning must incorporate these factors. An example of this is the 'memorial wall' at the Sobibór site which according to the archaeologist Yoram Haimi the Holocaust mass graves continue beyond the proposed boundary, into the forest, and the construction of this wall could disturb the remains of the Sobibór victims (Lebovic 2019).



1 Main entrance gate
2 Siding into camp (10 wagons)
3 Ramp
4 Narrow gauge rail link to Camps II and III
5 Guard hut
6 Ukrainian jail
7 SS canteen and kitchen
8 Kommandantur - "Schwalbennest" (The Swallows Nest)
9 SS garage
10 SS barbers/showers (former stable)
11 SS accommodation and "Casino" ("Zum lustigen Floh" - The Merry Flea)
12 SS accommodation
13 Storage hut
14 Laundry
15 Ukrainian officers quarters
16 Ukrainian quarters
17 Ukrainian canteen
18 Ukrainian quarters
19 Ukrainian kitchen
20 Ukrainian blockhouse
21 Sewing workshop
22 Shoemakers/saddlers workshop
23 Tailors
24 Blacksmiths
25 Carpentry workshop
26 Latrine
27 Painters/sign writers hut
28 Jewish housing
29 Jewish housing
30 Jewish kitchen
31 Jewish women's housing
32 Ukrainian shoemakers hut
33 Dispensary
34 Bakery
35 SS ironing hut
36 Shoe sorting warehouse with yard for sorting pots/pans and other items brought from the transports
37 Garden
38 Grazing field for cattle
39 "Der Schlauch" (The Tube - enclosed camouflaged barbed wire pathway to gas chambers in forest)
40 Transit barrack for depositing hand luggage
41 Open air undressing yard surrounded by awning over wooden hoarding
42 Food warehouse and "porch" for speeches made to arrivals
43 Valuables hut (originally this was located in a corner of the administration house facing the undressing yard)
44 Storage of silverware and electricity generator for camp
45 Awning covering camp vehicles
46 Stable and cowshed
47 Rabbit hutches
48 Pigpen and sty
49 Administration house (also accommodation for SS)
50 Sorting barracks (x 3) for victim's hand luggage
51 Brick built incinerator building
52 Double sorting sheds
53 Sorted items awaiting shipment
54 Latrine
55 "Lazarett" (former chapel with long pit behind structure for shooting invalids, the elderly or infirm, unaccompanied minors and any "trouble makers from the transports)
56 Landing strip for Himmler
57 Barbers barrack
58 Gas chambers
59 Engine room
60 Enclosed yard
61 Jewish "Sonderkommando" (Death Brigade) housing
62 Jewish kitchen and "dentists" accommodation
63 Latrine for Camp III Sonderkommando
64 Guards barrack
65 "Aussenkommando" (Ukrainian night shift barrack/guard post/ latrine and "outposts" for guarding camp exterior)

Figure 9: Plan of Sobibór site Figure source:

http://www.deathcamps.org/sobibor/pic/bmap21.jpg-

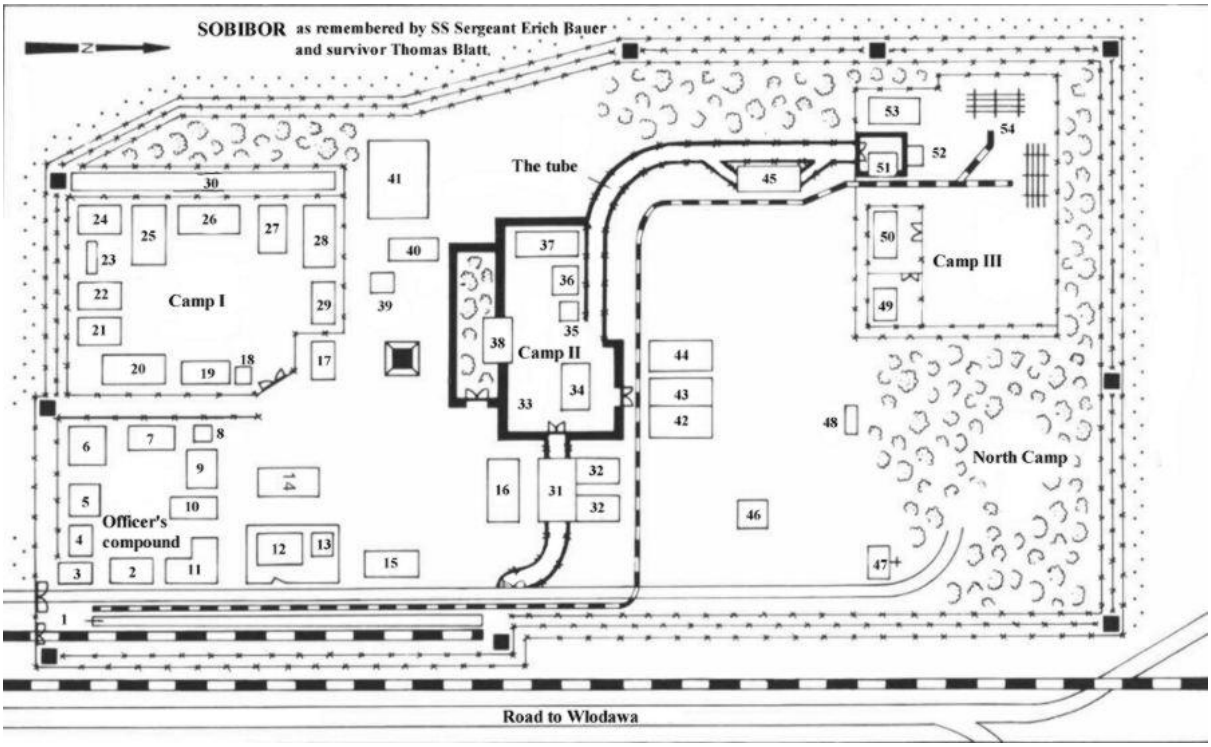


Figure 10: Witness map- Sobibór This site map has a different numbering to the above site map however it does highlight the three main camp areas and is similar in layout and structural features to the above map. Figure source: http://www.deathcamps.org/sobibor/pic/bmap3.jpg

Witness testimony of experiences at Sobibór offers a powerful insight into camp procedures and a comparison with official records alongside clarity regarding the use of specific spaces and buildings. Crucially, this testimony provides accounts and descriptions before site re-forestation and post war looting.

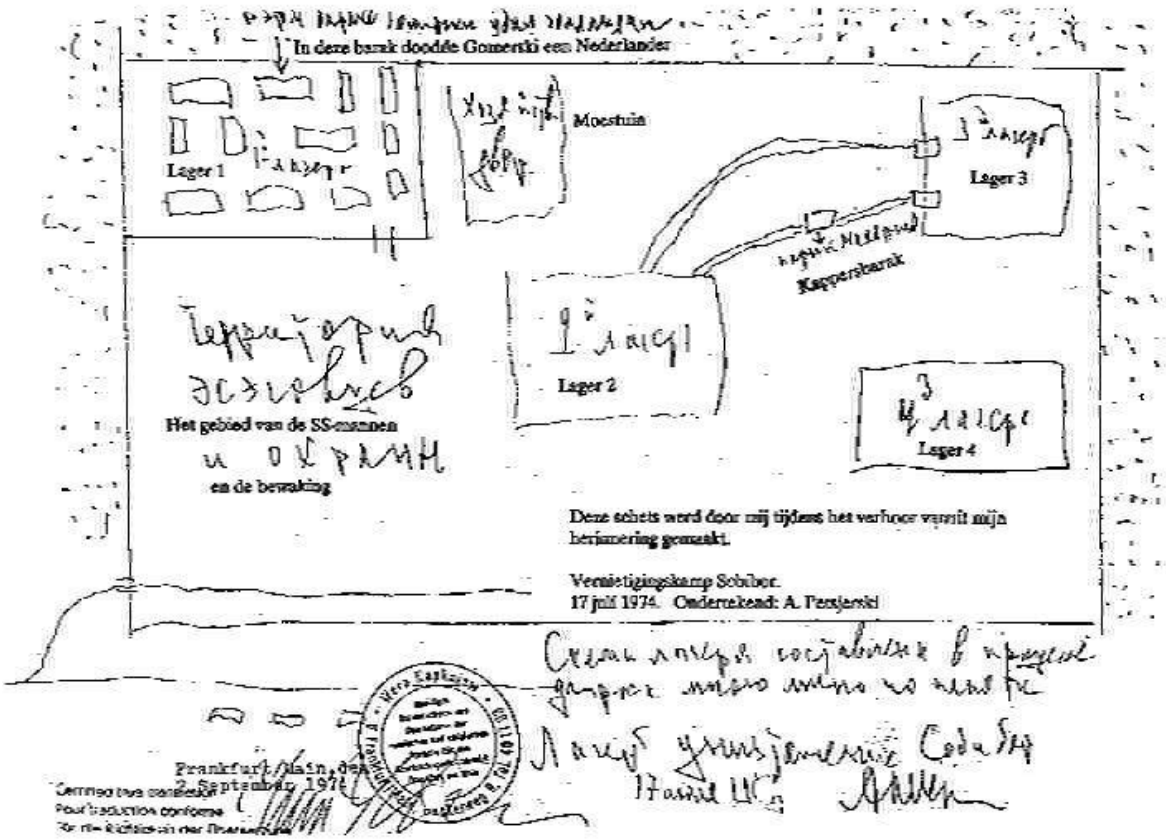


Figure 11: Alexander Petcherski Sketch
"Sacha" Petchersky, the Soviet officer selected from a Minsk transport in September 1943, was one of the main leaders in the plan for the Sobibór uprising.
Figure and description source: http://www.deathcamps.org/sobibor/pic/bmap1.jpg

This crude sketch by Alexander Petcherski is one of many examples of witness depictions of the Sobibór site and is crucial for comparing archaeological proposals regarding spaces and structures with genuine eye witness testimony. This ultimately assists in planning archaeological research by providing specific areas of interest but also aids interpretation. Webb (2017) provides various witness accounts that can assist with the recreation of events and individual experience. A combination of comparing site maps, official documentation and witness testimony was considered alongside the excavation location of the identification tag used for this research. This ultimately provides a detailed portrayal of Annie Kappers final hours at Sobibór.

Sobibór archaeological projects

The Sobibór site lay abandoned and un-researched for decades after World War Two. Archaeological investigations began in 2000 by Kola who deployed core drilling around suspected mass grave areas. This technique is controversial but produced a foundation for further research and clarified possible spatial features, including a proposed gas chamber location.

- In 2007 Yoram Haimi from Ben-Gurion University of the Negev began excavations at Sobibór with Wojciech Mazurek. Excavations focused on the areas between camps ll and lll and aimed to provide a comparison between this camp and the Treblinka and Belzec sites. Incorporating Kolas' (2000) excavation data Haimi and Mazurek also excavated to the west of the gas chamber structure proposed by Kola.
  This excavation resulted in over one thousand examples of material culture.
- In 2008 Haimi and Mazurek continued research and excavations at Sobibór. This included geophysical surveys between camps ll and lll and the proposed mass grave locations.
- Further excavations in 2010 revealed the site perimeter fencing, further gas chamber detail, cremation areas and probable Sonderkammando barracks.
- 2012 excavations revealed the 'roadway to heaven' route. This woodland pathway led people from the open air undressing yard to camp lll and the gas chambers.
- 2013 excavations included the discovery of the Annie Kapper identification tag. This artefact was unearthed between the mass graves, to the north of the gas chamber building. The precise excavation detail has not yet been published.

Figure 12: A similar example of an identification tag from Sobibór

Figure source: https://www.spiegel.de/international/zeitgeist/the-archeological-excavations-that-led-to-the-gas-chambers-of-sobibor-a-993733.html

(i) Artefact analysis worksheet This artefact analysis worksheet has been designed to provide a standardised inspection and record of artefacts for the creation of an object biography. The worksheet can be enlarged to allow space for extended text and sketches. It is likely that with relevant attachments this would result in a bespoke file for each object of interest.

SITE: OBJECT NAME/NO:
EXCAVATION LOCATION: Include any immediate structural or spatial detail. Attach site maps/GPS detail as available.
DIMENSIONS: Include artefact measurements and description or sketch of shape.
MATERIAL: Include the composition of the artefact, eg: wood, metal.
DECORATIVE DETAIL: Include colour and texture. Describe any text, images/engravings.
SPECIAL QUALITIES: Describe features such as moving parts, evidence of adaptations, use wear, indicators of origin or manufacture.

OBJECT FUNCTION: Include the possible primary function of the artefact. Describe any indicators of use by a specific gender, profession or age group.

OBJECT ROLE: Consider how this artefact featured in the owners life. Was it sentimental, practical or both ?

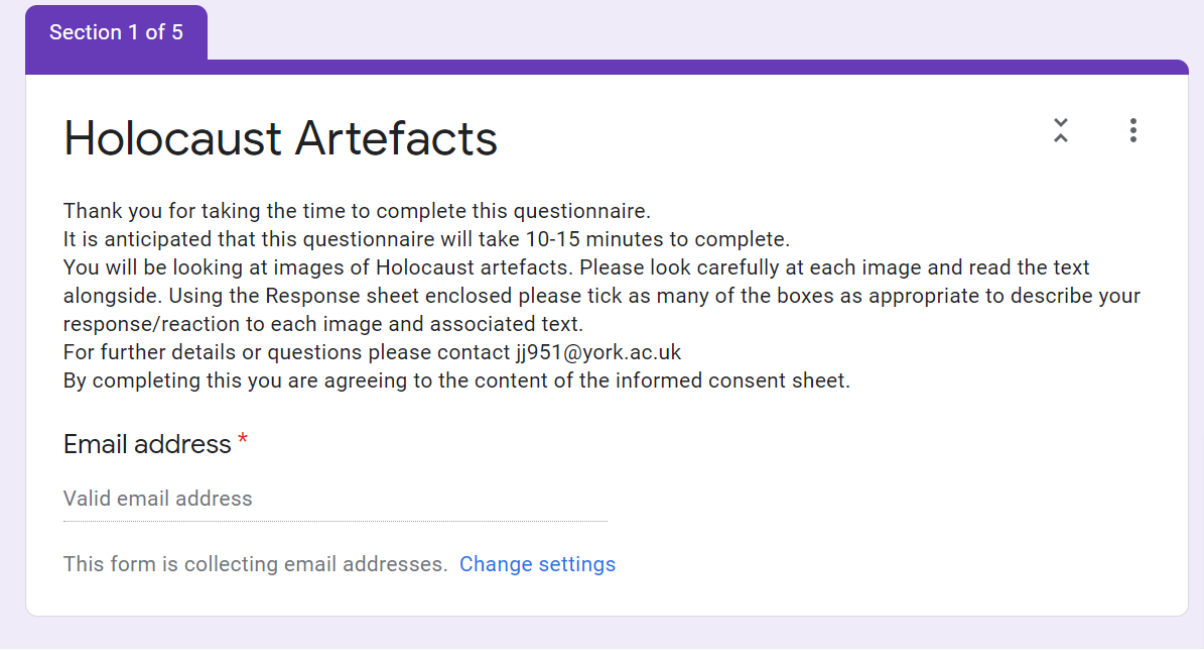
COMPARISONS: Include images/references for possible modern day equivalents for research comparisons.

Figure 13: Artefact analysis worksheet

(ii) Questionnaire participant ethics

An application to the University of York ethics committee was submitted. This was successful and allowed the researcher to distribute the questionnaire across various platforms and invite participants of 18 years old+. The participant consent form is included in section two of the questionnaire.

(iii) Questionnaire



Section 2 of 5

Participant Consent Form

I have read and understood the participant information sheet
I have had the opportunity to ask questions and discuss this study
I have received satisfactory answers to all of my questions (if applicable)
I have received enough information about the study
I understand my participation in the study is voluntary and that I am free to withdraw from the study:-
1 At any time
2 Without having to give a reason for withdrawing
3 Any responses/data submitted before withdrawal will be deleted.
I understand that any information I provide, including personal data, will be kept confidential, stored securely and only accessed by those carrying out the study.
I understand that any information I give may be included in published documents but all information will be anonymised.

Please confirm agreement to each statement by checking each box below *

- ◯ I agree to take part in this study

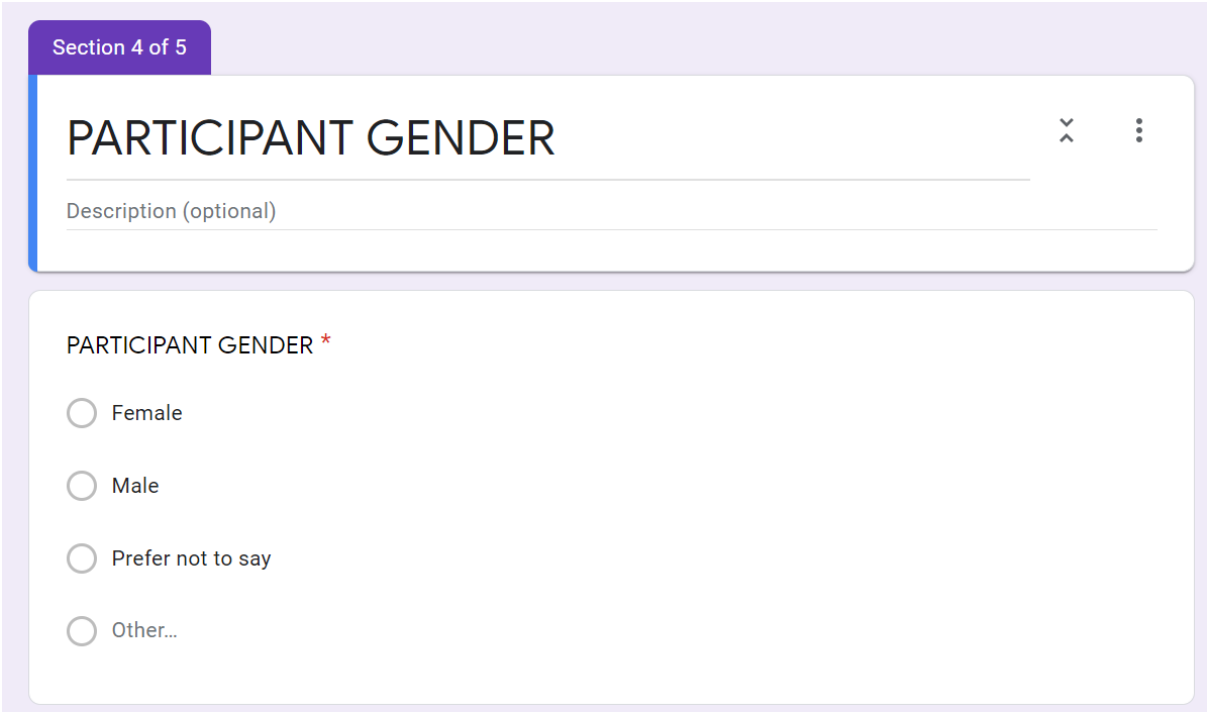
Section 3 of 5

PARTICIPANT AGE RANGE

Description (optional)

Age Range *

- ◯ 18-30
- ◯ 31-45
- ◯ 45+


Section 4 of 5
PARTICIPANT GENDER
Description (optional)
PARTICIPANT GENDER *
Female
Male
Prefer not to say
Other...

Annie who was born in 1931 in Amsterdam. It would have been worn as a pendant or bracelet charm. These ID tags were given to children by their parents in-case of separation and would have travelled with 12 year old Annie in 1943 to Sobibor death camp, Poland. The tag was discovered near the camps' undressing area and was probably accidentally deposited by Annie before she went to the gas chambers. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A Polish military button discovered at Sobibor death camp, Poland. 2.5cm diameter. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A metal plate found near the Sonderkammando barracks at Sobibor. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A pair of leather slippers given to Sam Klasner by Oscar Schindler in 1945. Sam was first imprisoned by the Germans in 1939 as a Polish soldier captured after the German invasion of Poland. Sam survived the Holocaust but after the war discovered his family had been killed at Auschwitz and Treblinka. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A round copper bowl from Treblinka death camp. Vessels for food were vital to camp survival and would have been treasured and used by a prisoner who lived long enough at the camp to require food. Close inspection shows use-wear and possible adaptions around the rim edge. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A gold and diamond ring discovered at Auschwitz-Birkenau. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A plastic doll given to 6 year old Zelda in Germany shortly before been moved to a labour camp in 1943. Zelda and her mother survived the Holocaust, living in a displaced persons' camp in Munich, Germany. However, the majority of their relatives died during the war. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

A fabric shield made by a Czech prisoner. 7.9 x 5.7 cm. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

An engraved gold ring found at Sobibor, Poland. *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

Star of David silver pendant found during archaeological excavations at Sobibor, Poland *

- [ ] Disgust
- [ ] Curiosity
- [ ] Neutral emotional response
- [ ] Sadness
- [ ] Empathy
- [ ] Shame
- [ ] Anger

Figures 14-24: Questionnaire images Sourced from Kranz et al (2018) '*Recovered from the Ashes'.* Panstwowe Museum of Lublin and the United States Holocaust Memorial Museum: https://collections.ushmm.org/search/?page=2&q=Name+tags+%28lcsh%29&search_field=Object+Type. Accessed 9/12/18.

APPENDIX 2:RESULTS

This appendix provides a reminder of the questionnaire items with and without an object biography and the colour coding assigned regarding object type defined for this research. The Tukey post hoc tables are then presented to allow specific comparisons.

Questionnaire items.
Item 1- **With** Object Biography
Item 2- Without Object Biography
Item 3- Without Object Biography
Item 4- **With** Object Biography
Item 5- **With** Object Biography
Item 6- Without Object Biography
Item 7- **With** Object Biography
Item 8- Without Object Biography
Item 9- Without Object Biography
Item 10- Without Object Biography

Table 15: A reminder of the questionnaire items with and without an object biography

Artefact Type Colour Key

- Red: Personal item with Name connection
- Blue: Practical, Non personal item
- Green: Item associated with a specific group*
- Yellow: Unusual/unfamiliar item
- Orange: Sentimental item

*Specific group refers to a 'category' of people, for example-children or a particular religious affiliation.

Dependent Variable: Emotional Responses						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
REDItem_1	YELLOWItem_2	1.133*	0.114	0.000	0.77	1.5
	BLUEItem_3	1.208*	0.114	0.000	0.85	1.57
	REDItem_4	0.225	0.114	0.624	-0.14	0.59
	BLUEItem_5	.700*	0.114	0.000	0.34	1.06
	ORANGEItem_6	.508*	0.114	0.000	0.15	0.87
	GREENItem_7	0.167	0.114	0.909	-0.2	0.53
	YELLOWItem_8	1.142*	0.114	0.000	0.78	1.5
	ORANGEItem_9	.483*	0.114	0.001	0.12	0.85
	GREENItem_10	0.233	0.114	0.572	-0.13	0.6
*. The mean difference is significant at the 0.05 level.						

Table 16: Summary of the comparison of the responses of item 1 (Red) to other object types

Emotional responses to Item 1 (Red) – identification tag are significantly different to Item 2 (Yellow) Items 3 and 5 (Blue) Items 6 and 9 (Orange). There is no significant difference between the emotional response to Item 1 and the other Red Item (4) and the Green items on the questionnaire (7 and 10).

Dependent Variable: Emotional Responses						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
YELLOWItem_2	REDItem_1	-1.133*	0.114	0.00	-1.5	-0.77
	BLUEItem_3	0.075	0.114	1.00	-0.29	0.44
	REDItem_4	-.908*	0.114	0	-1.27	-0.55
	BLUEItem_5	-.433*	0.114	0.006	-0.8	-0.07
	ORANGEItem_6	-.625*	0.114	0.00	-0.99	-0.26
	GREENItem_7	-.967*	0.114	0.000	-1.33	-0.6
	YELLOWItem_8	0.008	0.114	1.000	-0.35	0.37
	ORANGEItem_9	-.650*	0.114	0.00	-1.01	-0.29
	GREENItem_10	-.900*	0.114	0.000	-1.26	-0.54
*. The mean difference is significant at the 0.05 level.						

Table 17: Summary of the comparison of the responses of item 2 (Yellow) to other object types

Emotional responses for Item 2 (Yellow) are further significantly different from the responses for Item 4 (Red), Item 5 (Blue), Item 6 (Orange), Item 7 (Green), Item 9 (Orange), and Item 10 (Green) as observed in significance levels of less than 0.05 in all the cases. However, there is no significant difference between Item 2 with items 3 and 8.

Dependent Variable: Emotional Response						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BLUEItem_3	REDItem_1	-1.208*	0.114	0.000	-1.57	-0.85
	YELLOWItem_2	-0.075	0.114	1.000	-0.44	0.29
	REDItem_4	-.983*	0.114	0.000	-1.35	-0.62
	BLUEItem_5	-.508*	0.114	0.000	-0.87	-0.15
	ORANGEItem_6	-.700*	0.114	0.000	-1.06	-0.34
	GREENItem_7	-1.042*	0.114	0.000	-1.4	-0.68
	YELLOWItem_8	-0.067	0.114	1.000	-0.43	0.3
	ORANGEItem_9	-.725*	0.114	0.000	-1.09	-0.36
	GREENItem_10	-.975*	0.114	0.000	-1.34	-0.61
*. The mean difference is significant at the 0.05 level.						

Table 18: Summary of the comparison of the responses of item 3 (Blue) to other object types.

Item 3 (Blue) shows significant difference in emotional response with Item 4 (Red) (*p=-0.983);* Item 5 (Blue) (*p=0.000);* Item 6 (Orange) (*p=0.000*); Item 7 (Green) (*p=000*); Item 9 (Orange) (*p=0.000*); and Item 10 (Green) (*p=0.000).* The data shows that there is no significant difference in the emotional response of Item 3 in only two cases: Item 2 (Yellow) and Item 8 (Yellow) with *p-values* of -.075 and -0.067 respectively.

Dependent Variable: Emotional Response						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
REDItem_4	REDItem_1	-0.225	0.114	0.624	-0.59	0.14
	YELLOWItem_2	.908*	0.114	0	0.55	1.27
	BLUEItem_3	.983*	0.114	0	0.62	1.35
	BLUEItem_5	.475*	0.114	0.001	0.11	0.84
	ORANGEItem_6	0.283	0.114	0.283	-0.08	0.65
	GREENItem_7	-0.058	0.114	1	-0.42	0.3
	YELLOWItem_8	.917*	0.114	0	0.55	1.28
	ORANGEItem_9	0.258	0.114	0.419	-0.1	0.62
	GREENItem_10	0.008	0.114	1	-0.35	0.37
*. The mean difference is significant at the 0.05 level.						

Table 19: Summary of the comparison of the responses of item 4 (Red) to other object types

The emotional responses to Item 4 (Red) are significantly different from Item 5 (Blue) (*p=-001*); and Item 8 (Yellow) (*p=-0.001*). However, the object type of item 4 does not show significant differences with Item 6 (Orange) (*p=0.283*); Item 7 (Green) (*p=1.000*); Item 9 (Orange) (*p=0.419*) and Item 10 (Green) (*p=1.000).*

Dependent Variable: Emotional Responses						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BLUEItem_5	REDItem_1	-.700*	0.114	0.00	-1.06	-0.34
	YELLOWItem_2	.433*	0.114	0.006	0.07	0.8
	BLUEItem_3	.508*	0.114	0	0.15	0.87
	REDItem_4	-.475*	0.114	0.001	-0.84	-0.11
	ORANGEItem_6	-0.192	0.114	0.81	-0.55	0.17
	GREENItem_7	-.533*	0.114	0.000	-0.9	-0.17
	YELLOWItem_8	.442*	0.114	0.005	0.08	0.8
	ORANGEItem_9	-0.217	0.114	0.674	-0.58	0.15
	GREENItem_10	-.467*	0.114	0.002	-0.83	-0.1
*. The mean difference is significant at the 0.05 level.						

Table 20: Summary of the comparison of the responses of item 5 (Blue) to other object types

Statistical differences for Item 5 (Blue) are observed with Item 7 (Green) (*p=0.000*); Item 8 (Yellow) (*p=0.005)* and Item 10 (Green) (*p=0.002)*. In contrast, the lack of a significant difference between Item 5 (Blue) is observed with Item 6 (Orange) (*p=0.810)*; Item 9 (Orange) (*p=0.674*).

Dependent Variable: Emotional Response						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
ORANGEItem_6	REDItem_1	-.508*	0.114	0.000	-0.87	-0.15
	YELLOWItem_2	.625*	0.114	0.000	0.26	0.99
	BLUEItem_3	.700*	0.114	0.000	0.34	1.06
	REDItem_4	-0.283	0.114	0.283	-0.65	0.08
	BLUEItem_5	0.192	0.114	0.81	-0.17	0.55
	GREENItem_7	-0.342	0.114	0.085	-0.7	0.02
	YELLOWItem_8	.633*	0.114	0.000	0.27	1
	ORANGEItem_9	-0.025	0.114	1.000	-0.39	0.34
	GREENItem_10	-0.275	0.114	0.325	-0.64	0.09
*. The mean difference is significant at the 0.05 level.						

Table 21: Summary of the comparison of the responses of item 6 (Orange) to other object types

In Item 6 (Orange) other statistical differences are observed with Item 8 (Yellow) (*p=0.000)* apart from the previously mentioned instances with Items 1, and 2. No statistical differences are observed with Item 7 (Green) (*p=0.085*); Item 9 (Orange) (*p=1.000*) and Item 10 (Green) (*p=0.325)* as well as in the previous cases of items 4 and 5.

Dependent Variable: Emotional Response						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
GREENItem_7	REDItem_1	-0.167	0.114	0.909	-0.53	0.2
	YELLOWItem_2	.967*	0.114	0.000	0.6	1.33
	BLUEItem_3	1.042*	0.114	0.000	0.68	1.4
	REDItem_4	0.058	0.114	1.000	-0.3	0.42
	BLUEItem_5	.533*	0.114	0.000	0.17	0.9
	ORANGEItem_6	0.342	0.114	0.085	-0.02	0.7
	YELLOWItem_8	.975*	0.114	0.000	0.61	1.34
	ORANGEItem_9	0.317	0.114	0.149	-0.05	0.68
	GREENItem_10	0.067	0.114	1.000	-0.3	0.43
*. The mean difference is significant at the 0.05 level.						

Table 22: Summary of the comparison of the responses of item 7 (Green) to other object types

Item 7 (Green) has mean emotional responses that are statistically different from Item 8 (Yellow) (*p=0.000)* alongside the previously mentioned instances of items 2, 3, and 5. However, there are no statistical differences between the means of the emotional responses in Item 9 (Orange) (*p=0.149*) and Item 10 (Green) (*p=1.000)* as well as in the previous instances of items 1, 4, and 6

Dependent Variable: Emotional Response						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound

YELLOWItem_8	REDItem_1	-1.142*	0.114	0	-1.5	-0.78
	YELLOWItem_2	-0.008	0.114	1	-0.37	0.35
	BLUEItem_3	0.067	0.114	1	-0.3	0.43
	REDItem_4	-.917*	0.114	0	-1.28	-0.55
	BLUEItem_5	-.442*	0.114	0.005	-0.8	-0.08
	ORANGEItem_6	-.633*	0.114	0	-1	-0.27
	GREENItem_7	-.975*	0.114	0	-1.34	-0.61
	ORANGEItem_9	-.658*	0.114	0	-1.02	-0.3
	GREENItem_10	-.908*	0.114	0	-1.27	-0.55
*. The mean difference is significant at the 0.05 level.						

Table 23: Summary of the comparison of the responses of item 8 (Yellow) to other object types

Item 8 (Yellow) shows statistically different mean emotional responses with Item 9 (Orange) (*p=0.149*) and Item 10 (Green) (*p=1.000)* in addition to the previous cases of items 1, 4, 5, 6, and 7. In contrast, there are no statistical differences with the means of previous object types in items 2 and 3.

Dependent Variable: Emotional Responses						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
ORANGEItem_9	REDItem_1	-.483*	0.114	0.001	-0.85	-0.12
	YELLOWItem_2	.650*	0.114	0	0.29	1.01
	BLUEItem_3	.725*	0.114	0	0.36	1.09
	REDItem_4	-0.258	0.114	0.419	-0.62	0.1
	BLUEItem_5	0.217	0.114	0.674	-0.15	0.58
	ORANGEItem_6	0.025	0.114	1	-0.34	0.39
	GREENItem_7	-0.317	0.114	0.149	-0.68	0.05
	YELLOWItem_8	.658*	0.114	0	0.3	1.02
	GREENItem_10	-0.25	0.114	0.469	-0.61	0.11
*. The mean difference is significant at the 0.05 level.						

Table 24: Summary of the comparison of the responses of item 9 (Orange) to other object types

Emotional responses for Item 9 (Orange) and Item 10 (Green) are not statistically different (*p=0.469).* The previous cases show that the mean responses for Item 9 are statistically different with items 1, 2, 3, and 8. However, Item 9 has shown no statistical differences with the responses in items 4, 6, and 7.

Dependent Variable: Emotional Responses						
Tukey						
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
GREENItem_10	REDItem_1	-0.233	0.114	0.572	-0.6	0.13
	YELLOWItem_2	.900*	0.114	0	0.54	1.26
	BLUEItem_3	.975*	0.114	0	0.61	1.34
	REDItem_4	-0.008	0.114	1	-0.37	0.35
	BLUEItem_5	.467*	0.114	0.002	0.1	0.83
	ORANGEItem_6	0.275	0.114	0.325	-0.09	0.64
	GREENItem_7	-0.067	0.114	1	-0.43	0.3
	YELLOWItem_8	.908*	0.114	0	0.55	1.27
	ORANGEItem_9	0.25	0.114	0.469	-0.11	0.61
*. The mean difference is significant at the 0.05 level.						

Table 25: Summary of the comparison of the responses of item 10 (Green) to other object types

Item 10 demonstrates statistically different emotional responses with items 2, 3, 5, and 8. The lack of statistical difference has been observed between Item 10 and the previous instances of items 1, 4, 6, and 7.

APPENDIX 3: CONCLUSION/RECOMMENDATIONS

(i) Current exhibitions: the presentation of the scale of death
(ii) The presentation of Holocaust material culture
(iii) Original spaces
(iv) Exhibition recommendations

Auschwitz-Birkenau, Poland is probably the most universally recognised Holocaust site. With 2.3 million visitors in 2019 this site offers an indication of the quantity of individuals that are been informed through this particular Holocaust site exhibits. As previously mentioned, the author was reliant on online exhibits and previous Holocaust site visits for this research due to the restrictions on travel during the Covid 19 pandemic. As such, Auschwitz-Birkenau has been used as a benchmark throughout this research as an example of an orginal Holocaust camp and a prominent heritage site that the author has visited numerous times. This research has proposed the inclusion of object biographies as an affective format across Holocaust museums inviting an alternative dissemination method that contrasts to an effective style of presentation.

(i) Current exhibitions: the presentation of the scale of death

This effective exhibit allows an attempt at visualising the scale of death.

Figure 25: Auschwitz exhibit. Figure source: https://www.chasingtravel.com/

A powerful inclusion would be introducing one pair of shoes with an object biography to demonstrate how each example of footwear belonged to an individual, who had a life before the Holocaust.

An article in the New York Times (Kimmelman 2011) explains how the original exhibit design in the 1950s understandably focused on mass victimhood without highlighting the individual and their stories. This approach was necessary to demonstrate the quantity of evidence proving the scale of persecution and death during the Holocaust. This material was powerful, similar to a crime scene reconstruction and evidence presentation. Without this foundation and an understanding of the scale, process and the practical dynamics of the Final Solution it would not be possible to explore the intimate variable of human agency and how it impacts on the interpretation of Holocaust material culture. Establishing the hard facts and evidence allows a deeper investigation into the individual, their life and experiences and how we can all relate to someone on some level.

Figure 26: Heritage board Auschwitz

The exhumation and burning of bodies to remove evidence of genocide at the Birkenau site

Figure 27: Heritage board Auschwitz. Figures source: Authors own (2017) taken from heritage boards at Auschwitz-Birkenau memorial museum

These images are presented overlooking the exact area depicted in the photograph. They are a vital as graphic evidence of atrocity and are effective through shock whilst offering further indication of the scale of death and treatment of prisoners.

Figure 28: Presenting death. Figure source: https://discovercracow.com/auschwitz-photos/

Similarly, this image presents evidence of the fate of prisoners and a soldier presenting bodies whilst possibly preparing to make a speech.

Figure 29: Exhibit in the 'Sauna' building-Birkenau. Figure source: Authors own (2017).

This exhibit allows visitors to witness the faces of some of those who perished at Auschwitz-Birkenau whilst also presenting a fraction of those that died on this site. These photographs were amongst the personal belongings of prisoners arriving at the concentration camp and as such offer an objective example of Holocaust evidence and material culture. This sea of faces is effective and invites curiosity regarding individual stories as we scan the images searching for familiarity. However, it is difficult to achieve this connection beyond the obvious denominators such as gender and age groups. An affective addition would be to choose a small number of identifiable photographs and present a personal biography of each individual. The presentation of scale is crucial, however; this research has demonstrated that if observers are offered an opportunity for further detail and an affective connection, it will largely be embraced.

The Tower of faces exhibit United States Holocaust Memorial Museum.

This space provides images of thousands of Holocaust victims. It is an impressive and effective display of the magnitude of the Holocaust. However, these are nameless faces that ironically merge into one unidentifiable heap.

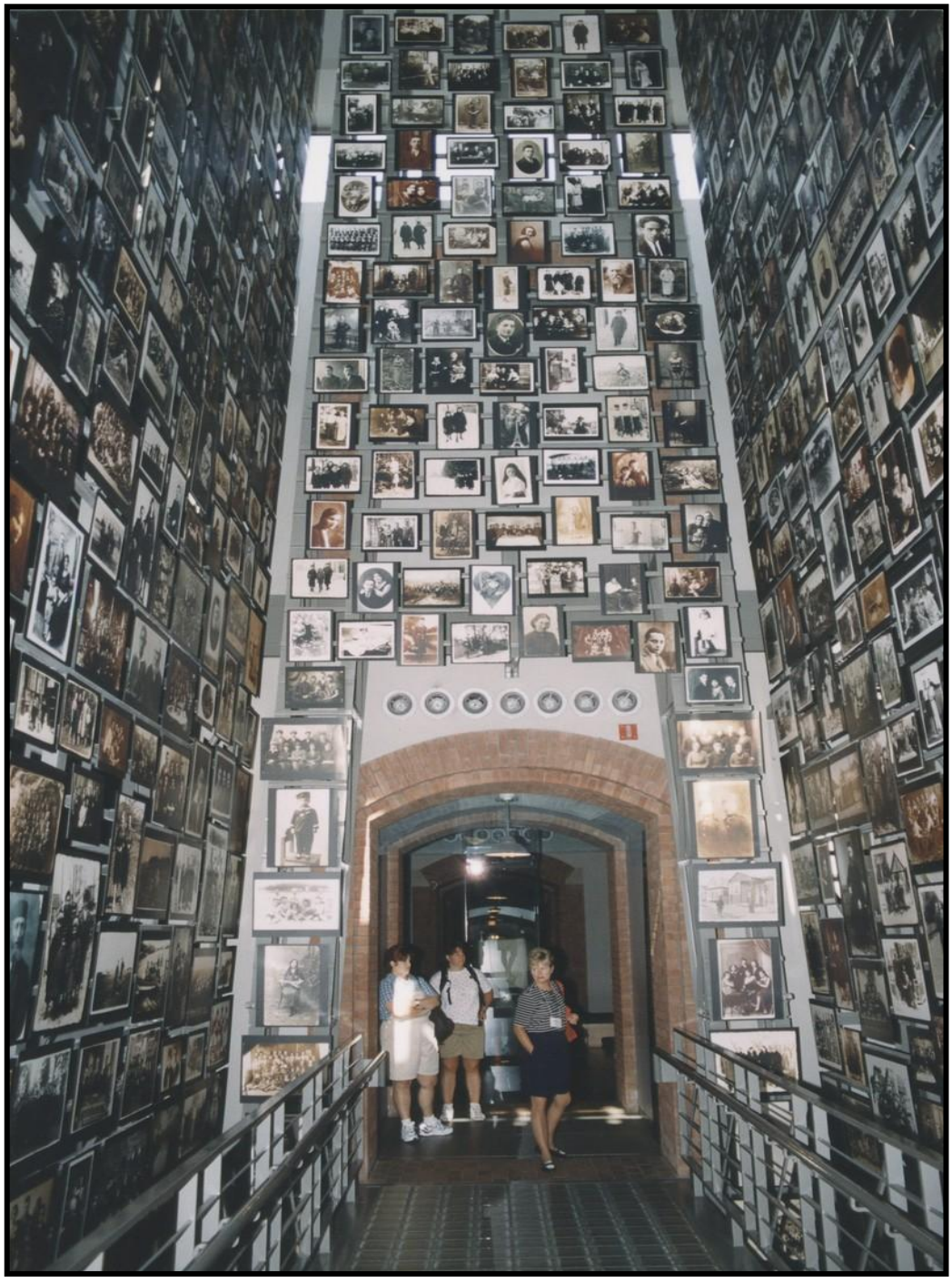


Figure 30: Tower of faces. Figure source: https://collections.ushmm.org/search/catalog/pa1138417 Photo by Max Reid.

(ii) The presentation of Holocaust material culture

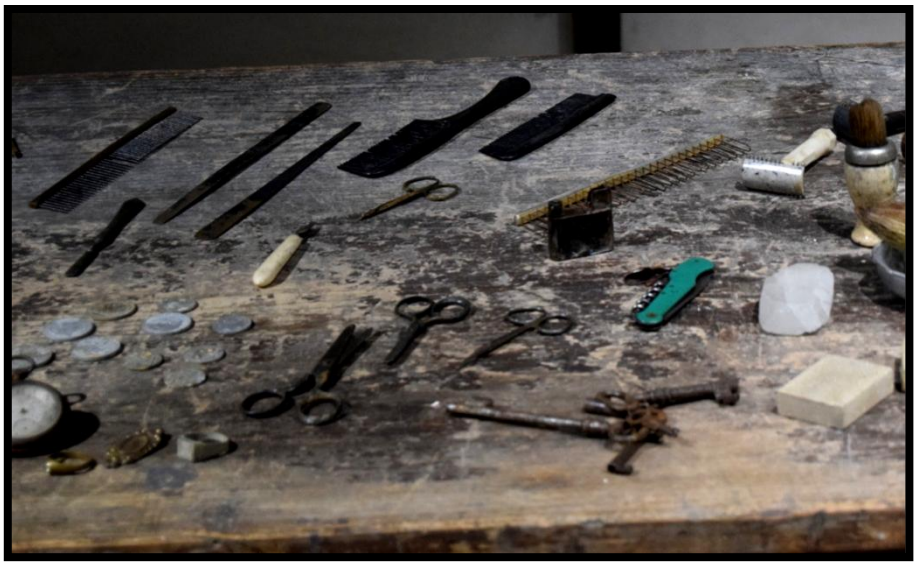


Figure 31: An exhibit of possessions at Birkenau. Figure source: Authors own (2018).

This display of artefacts is one of several examples that are neither effective nor affective and object type has not been considered. On an effective level, these items do not contribute in supporting the demographics and the scale of death or the brutal treatment of individuals. On an affective level, as defined by this research, these items would be considered 'practical' and the results have demonstrated that this object type produces the lowest emotional response from observers. However, the inclusion of an object biography can increase the affect of a practical item. It is necessary to consider, in detail, the content of exhibits, the balance between effective and affective presentation and how research can assist with the presentation of both approaches.

(iii) Original spaces

Kimmelman (2011) New York Times article cites the Auschwitz-Birkenau Memorial Museum Director Piotr Cywinski "Nothing must overshadow the evidence of the site itself" and "The more we use special effects, the more we draw attention away from the authenticity of this place, which is unlike any other." Exhibitions at Auschwitz 1 are housed in the original camp buildings. Reducing exhibits within the original barrack spaces would expose the original buildings interiors. The vast 'reception building' at Auschwitz 1 that was not utilised fully during the war, would be a logical location for the official museum and allow the authentic barracks to be revealed rather than overshadowed. A large proportion of the internal walls within the barracks at

Auschwitz 1 are not visible due to exhibits and modern floor surfaces, the lighting and the division screens result in an original space that has been transformed beyond recognition in relation to the Holocaust. This experience is recreated internationally across sites that have no authentic structures and spaces. In short, it is difficult to fully appreciate that you are experiencing an original space if those original features have been covered. The exclusive characteristics of these original structures should be presented in their rawest form.

Sympathetic reconstructions of conditions and the use of some of these spaces can be a powerful addition and the inclusion of object biographies, related to this barrack, would encourage a personal and affective experience.

Figure 32: An example of a barrack reconstruction at the Terezin Magdeburg barracks.

Figure source: https://www.pamatnik-terezin.cz/magdeburg-barracks

(iv) Exhibition and presentation recommendations.

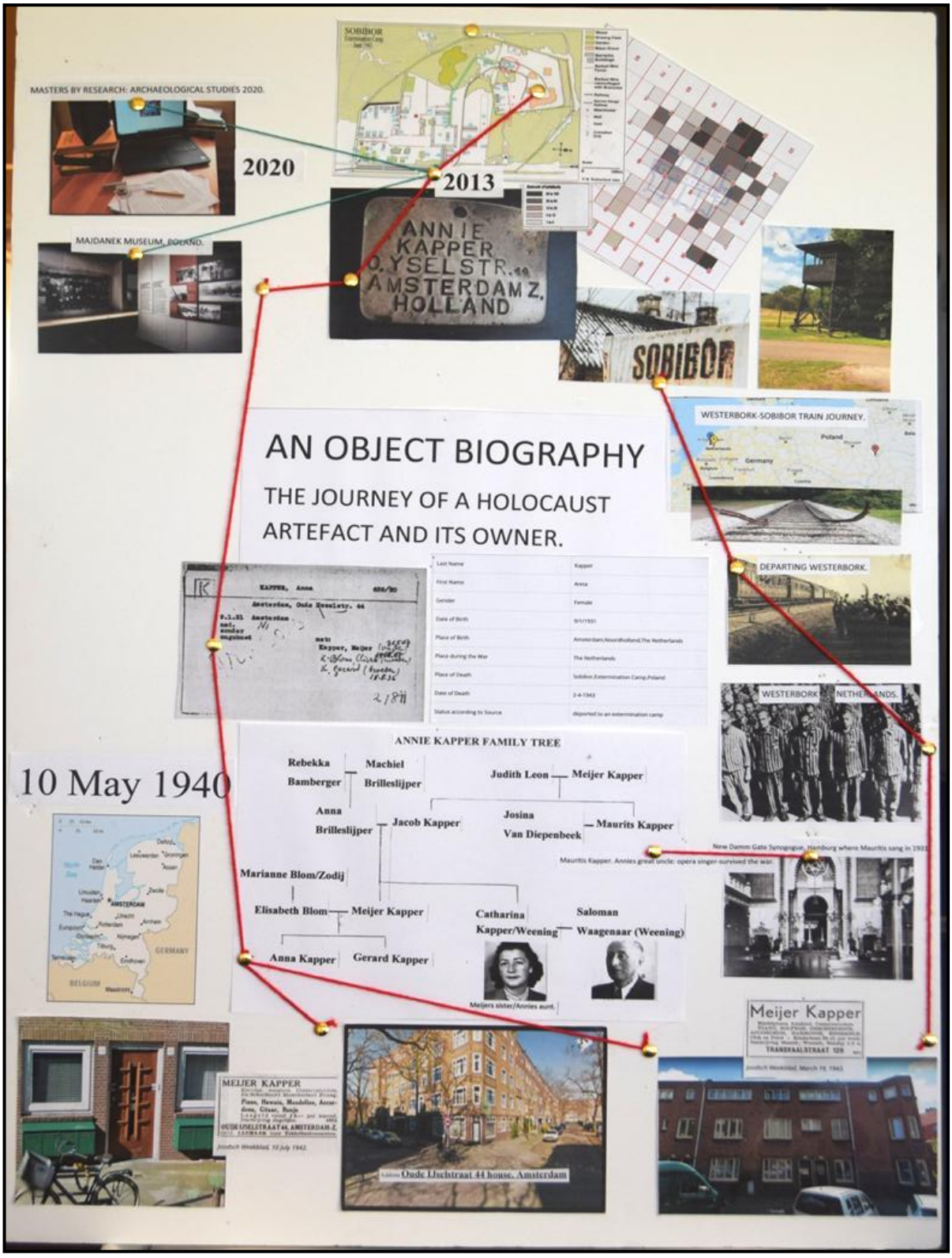
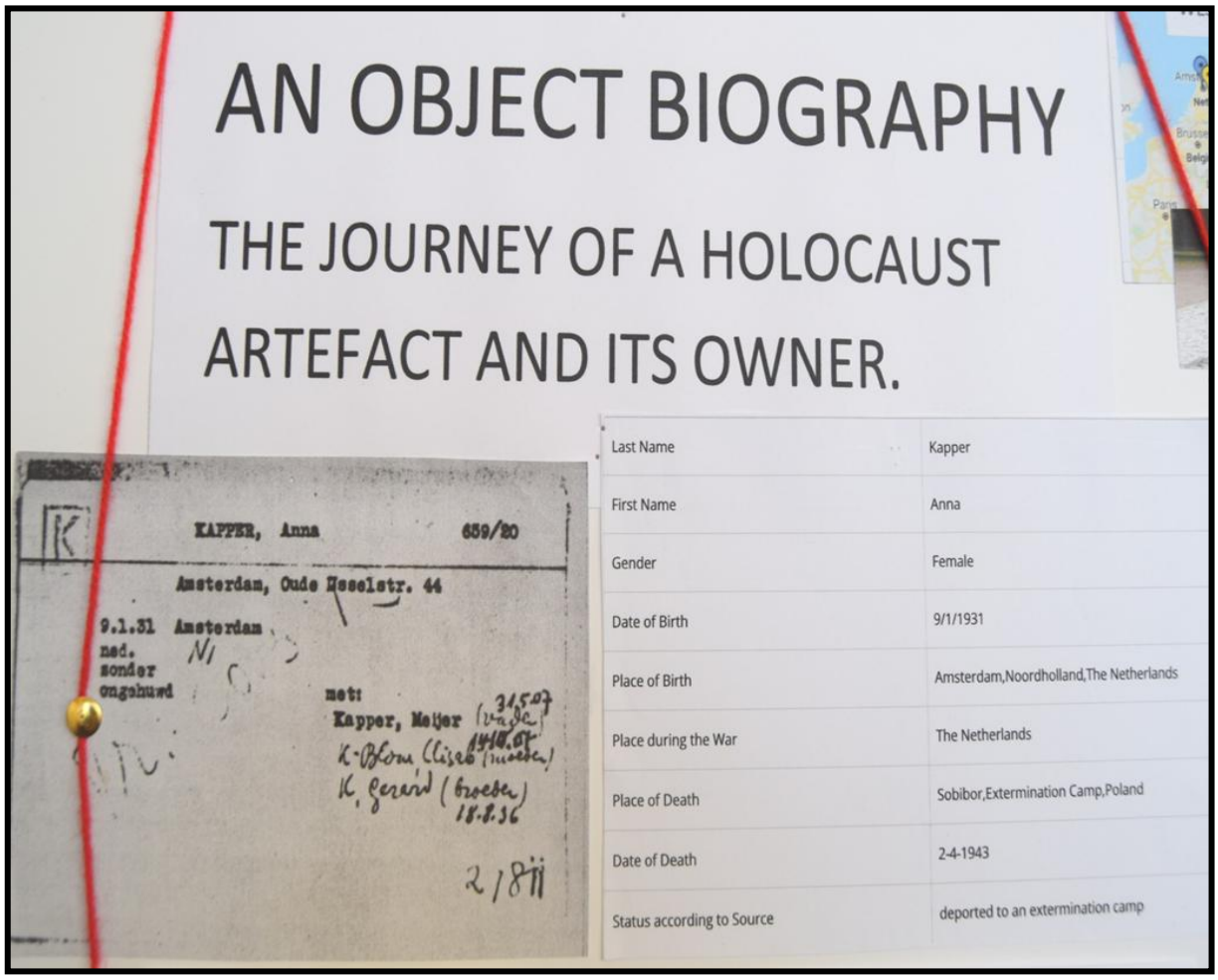


Figure 33: An object biography presentation the exhibit with a textual overview. Authors own.

The use of images related to the object and its owner could be presented to provide a life story and a highlight why a seemingly simple object is ultimately connected to an individual.

Figure 34: A focus on poster sections that would be readable as a large format and an exhibit but are restricted within this digital submission.



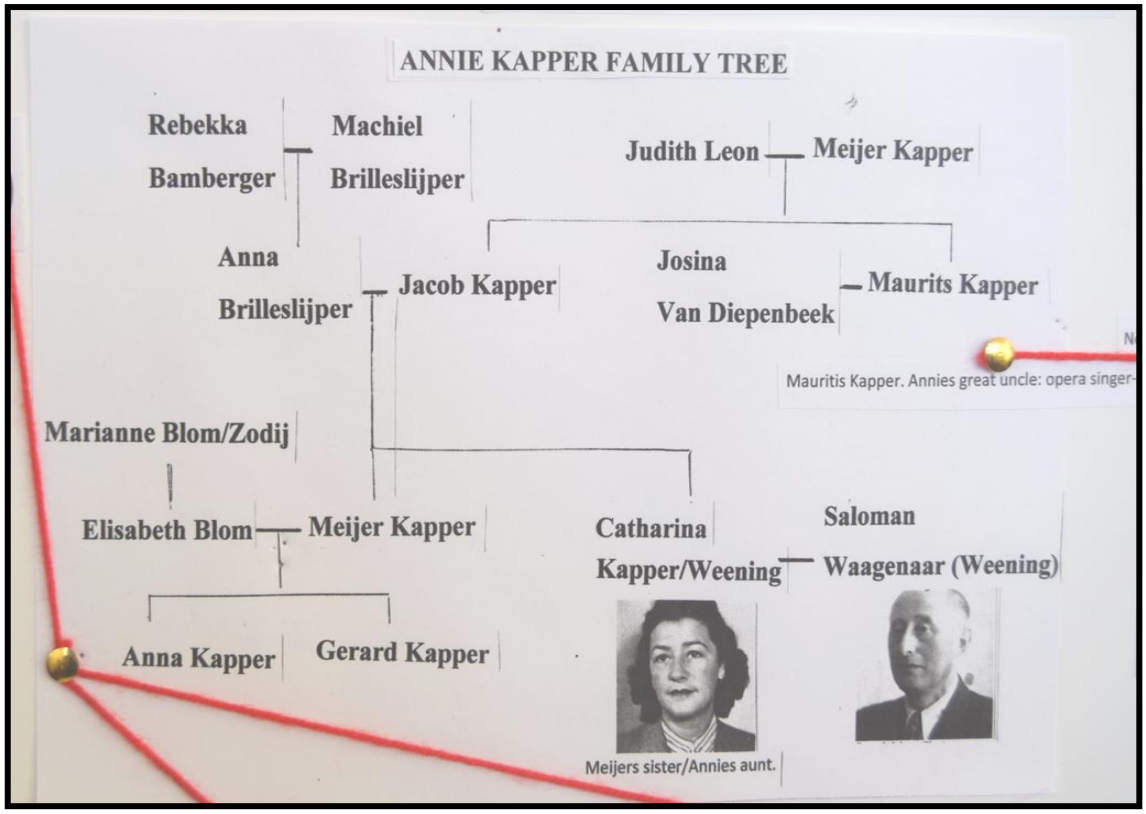


Figure 35: Poster section displaying Annie Kapper family tree.

Figure 36: Poster section displaying the Kapper family first address and the fathers' home music tuition advertisement.

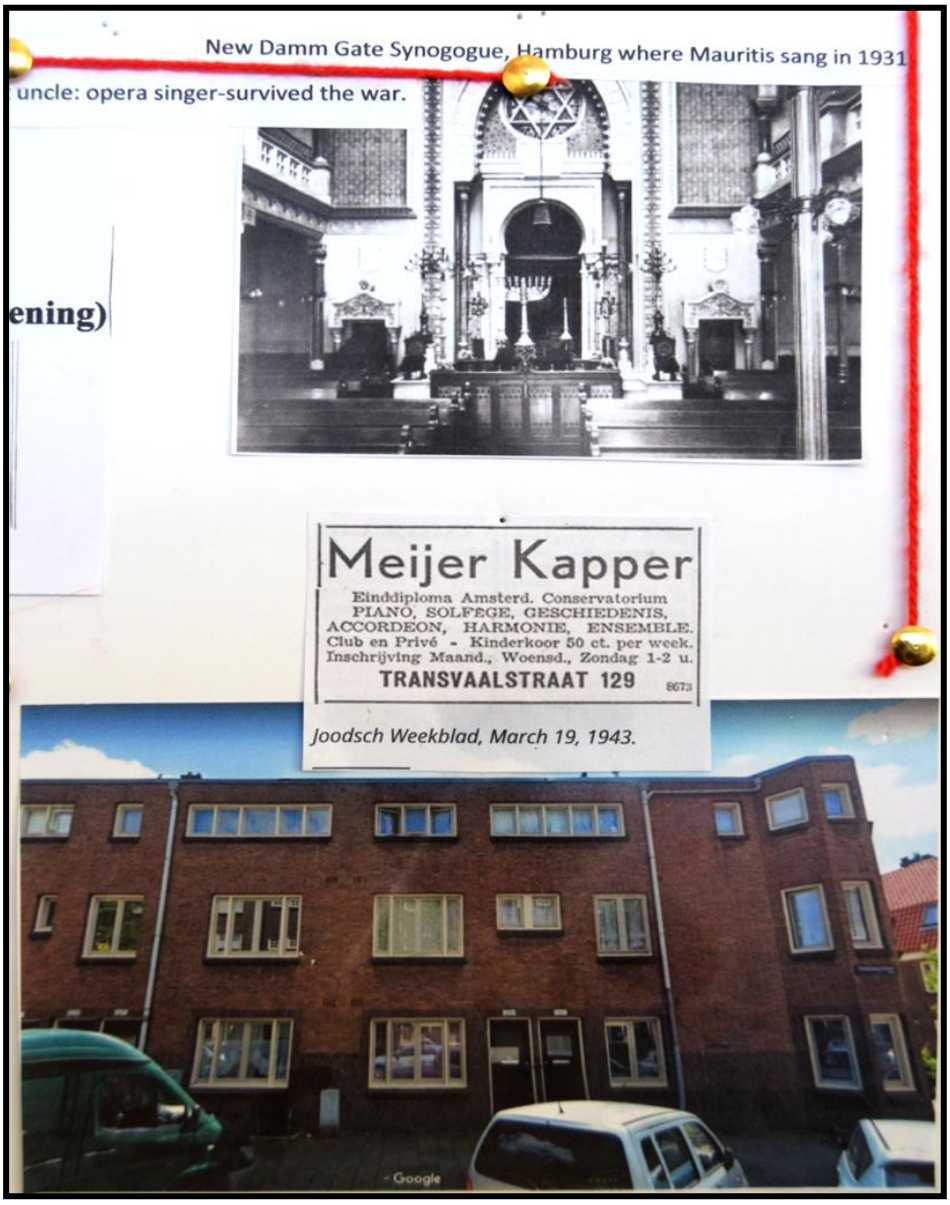


Figure 37: Poster section displaying the Kapper family final address in Amsterdam and the fathers' music tuition advertisement for this home. Also, an image of one of the venues that Annie's great uncle performed opera.

By embracing technology and appreciating that the use of smart phones is commonplace in 2020, incorporating QR codes with object biographical exhibits would enhance a museum experience and introduce a range of dissemination possibilities. Quick Response codes (QR) are a two dimensional bar code that can be read by a smart phone camera allowing the user to receive textual information, images and data instantly. This subtle inclusion would allow visitors to access extended detail about an exhibit whilst on site or after their visit.

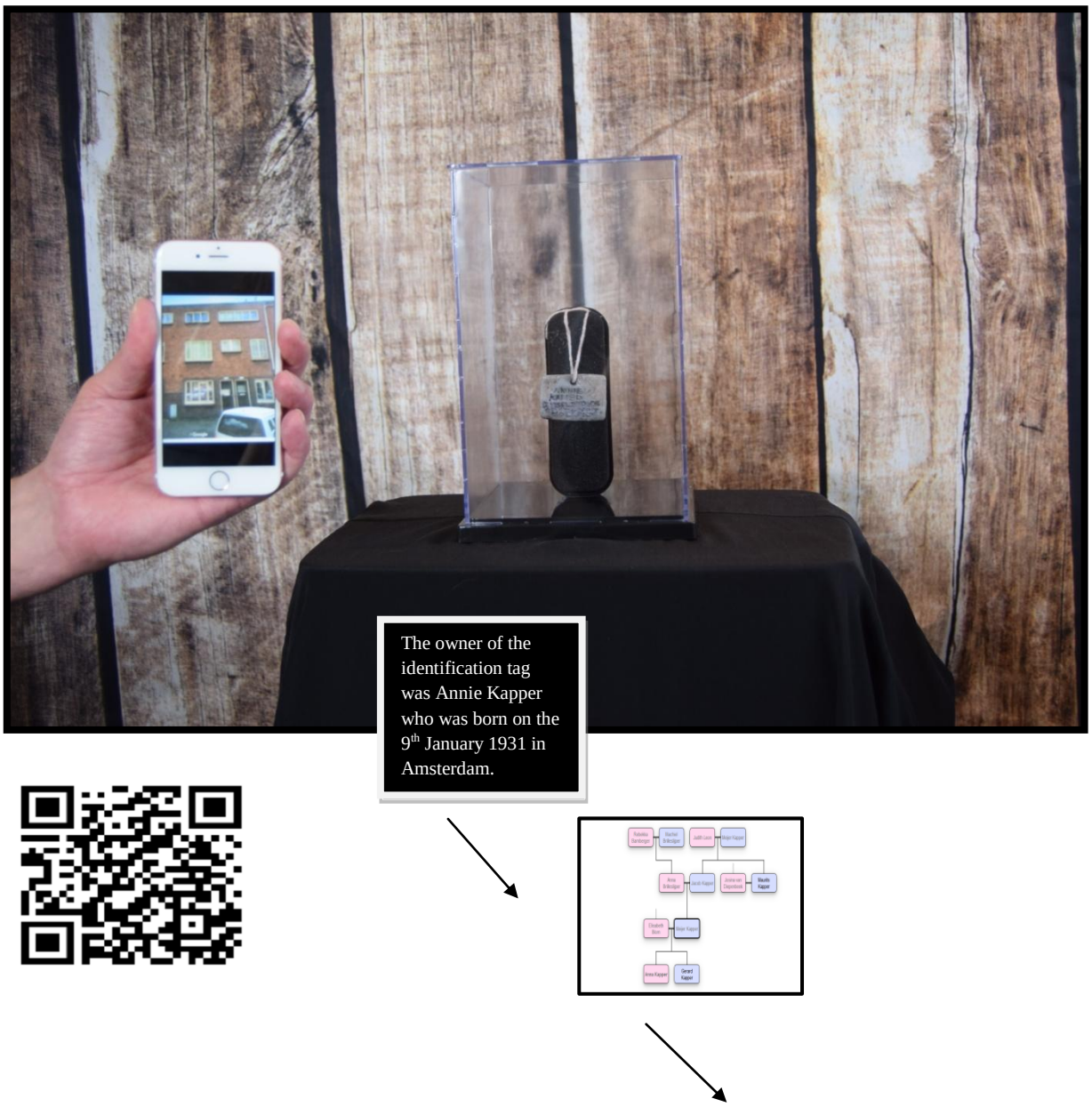


Figure 38: Proposed exhibit utilising QR codes and mobile phone technology.

Main Figure source: Authors own. QR code: Researchgate.net, Family member photographs: Geneologie Van Raam (2020) https://www.genealogieonline.nl/genealogie-van-raam/

This has several advantages within the museum setting. A provision for reading and reflection seating and spaces near to the exhibit would reduce the challenges of accessing heritage board text and time pressures in a crowded exhibit, whilst trying to access and absorb information. Extended text and biographical detail could be provided for visitors to read whilst on site or beyond their visit and possibly shared beyond the museum. Age appropriate QR code options would invite interaction and interest from a younger audience with material that was suitable for specific age groups.