Digital Witnessing: Towards Holocaust Memory Practice in a Post-Survivor Age

An Investigation into the First Generation of Digital Holocaust Memory Projects

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Abstract

The anticipated arrival of the digital turn in Holocaust Studies is entangled with the inevitable and imminent passing of the survivor community. Thus, the first generation of digital Holocaust memory projects have emerged hoping to preserve survivor testimony in what Lagerkvist (2017) terms "the digital afterlife". These include recordings of survivor testimony in virtual reality, mixed reality applications at former sites of Nazi persecution, as well as 3-dimensional interactive installations of survivor biographies.

Taking these institutional projects as its central focus, this thesis explores a range of case studies including *The Last Goodbye* VR experience, *The Liberation* AR mobile application, as well as *Dimensions in Testimony*. This research also considers videogames as an important media in the growing corpus of digital Holocaust memory projects more widely, and therefore moves beyond the institutional focus to critically consider *Call of Duty: WWII*.

Emerging at the intersection between Holocaust studies and media theory, this work investigates the shift from what Wieviorka (2006) termed the "Era of the Witness" to what is being referred to as the "Era of the User", as a greater emphasis is being placed on the participant. Indeed, as living memory continues to fade into history, the locus of authenticity is shifting to realm of experience with priority afforded to affect as a form of embodied knowing.

Taking a phenomenological approach, this research investigates the positionality of the user within these projects, which invite us to examine, enact, and perform in

various ways. In this context, I argue that new media technologies might expand our capacities to witness and open up new possibilities for moral response. Advancing on recent studies which seek to foreground imagination as an essential conduit for memory practice, then, I put forward an understanding of “digital Holocaust witnessing”. In turn, this thesis grapples with notions of performance, embodiment, simulation, interaction, and agency, which are becoming increasingly important as we continue to tangle technology with established modes of memory practice.

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Introduction

"Never again" and "never forget"; two, often conflated "idealistic platitudes" (Adorno,1997, p.11) universally uttered on the lips of the post-Holocaust generation. As survivors and living memory fades, our promise to never forget looms large and begs the question, how does one practice *not* forgetting? Dismissed as a rhetorical exhortation that has come to mean little in the face of ongoing genocides around the world, Holocaust survivors themselves have challenged the notion, exclaiming, it is not never again, but *yet* again. Marking the 75th anniversary of the liberation of Auschwitz-Birkenau, a global commemorative campaign was launched for International Holocaust Remembrance Day using #WeRemember (2020): a notable shift from the double negation, never forget to the collective pursuit of remembrance. Although this may seem a linguistic detail, a shift between two statements that essentially mean the same thing, implicit in the revised command is an emphasis on responsibility and a greater call to individual and collective action. To remember, there is a sense that *we* must cognitively and physically *do* something, placing more emphasis on our role as actors as the survivor community declines. This communal obligation is echoed in the Holocaust Memorial Day Trust's theme 'stand together' (UK, 2020). Subscribing to these campaigns, millions of people join "a global moral discourse and transnational community of memory" (Popescu and Schult, 2020, p.136).

In the wake of the COVID-19 pandemic this call to action was crystallised. Coinciding directly with the 75th anniversary of the liberation of the camps, the

pandemic forced site closures and disrupted plans for important milestone memorial services. For many survivors and their families, these commemorative events offered a final opportunity to visit these sites in person and engage in the memorial ceremonies. Fundamentally, then, the pandemic underscores the fragility of the aging survivors and brings into sharp focus our cultural anxieties about our transition to the "post-witness era" (Schult and Popescu, 2015). Indeed, it has not gone unnoticed that the first person in Israel to die from the virus was Holocaust survivor, Aryeh Even, reinforcing both the position and responsibility of the post generations for Holocaust memory in the future.

Acknowledging a surge in online activities (particularly on social media), Tobias Ebbrecht-Hartmann's (2021) and Victoria Walden's (2021) pioneering studies suggest that the pandemic has also accelerated the turn to digital Holocaust memory practice. While prestigious Holocaust memory institutions have been developing digital projects over the last decade, the global lockdowns have placed a spotlight on new media technologies and their potential to not only advance digital preservation efforts, but also to offer new digital encounters with Holocaust memory that transcend the spatial-temporal divide in novel ways. Indeed, Ebbrecht-Hartmann notes, "while the tension between immediacy and distance is characteristic of mediated memories from the Holocaust, it seems to be constitutive for commemorating the Holocaust in times of COVID-19" (2021, p.2). While the pandemic has arguably shifted academic attention away from formal projects onto social media and grass roots initiatives, institutions remain the central pillars of digital Holocaust education, paving the way for the museum and heritage sectors; they therefore warrant critical attention.

This thesis grapples with the tensions which underpin Holocaust memory practice at this critical juncture in history, as the challenges posed by the disappearance of the eye-witnesses are interrelated with the emergence of new media technologies which offer new possibilities for engaging and interacting with the past. While there is much excitement about the transformative potentials of new digital technologies such as virtual reality and augmented reality, this work cautions against technologically determinist views that the digital can uncover layers of reality previously closed off from us. Taking a nuanced approach, this thesis proposes an understanding of the first generation of digital Holocaust memory projects as simultaneously evolutionary and revolutionary.

Indeed, it seeks to demonstrate how the projects engage in long-established modes of remembrance, commemoration and education while also offering new possibilities for engaging with the past. Thus, it grapples with the material specificities of digital media (algorithms, software, interfaces, data and code) whilst keeping one eye cast on their audio-visual predecessors to tease apart what is both new and not new in terms of representation, framing and participation. Principally concerned with the possibilities for user engagement, then, this study takes an interdisciplinary approach at the intersection between media theory and holocaust studies. In turn, I propose the notion of *digital Holocaust witnessing* as one of the key opportunities to emerge from the digital turn in Holocaust memory practice more widely.

While the concept of holocaust witnessing has proven incredibly robust within academic writing for over 70 years (see Langer 1991; Hartman, 1996; LaCapra, 2001), it has always been, by virtue of its subject, intrinsically bound up in moral

and ethical sentiment. Recognising this as the fundamental characteristic of witnessing, this study, invokes John Durham Peters' (2001) understanding of the witness as someone who has privileged access to an event which necessarily creates a moral responsibility. While the literature on media witnessing – itself emerging from the discourse of the Holocaust witness – has articulated the moral burden placed on spectators (Boltanski 2004; Chouliaraki 2006; Tait, 2011) digital media offer new modes of experience that have the potential to position and engage audiences in new ways. Indeed, as Paul Frosh contends, "something has changed with the advent of digital media: a radical intensification and extension of the possibilities for witnessing that reflect the existential conditions of contemporary mediation" (2019, p.32). In investigating what has changed, I argue that digital Holocaust witnessing is about realising our moral responsibility anew, it is an urgent and immediate responsibility cast in the shadow of the declining survivor community. While this moment of realisation manifests differently in various projects, it is an embodied moment of contemplation brought about by technological communication, an entanglement of human, machine and subject.

Outline and Approach

This thesis explores four central case studies across a broad range of media; VR, AR, interactive testimony installations and video games. Spanning the globe, these examples emerge from a range of professional memory institutions, memorials and museums, such as the USC Shoah Foundation (US), The United States Holocaust Memorial Museum, The Illinois Holocaust Museum and Education Centre, The National Holocaust Centre and Museum (UK) and the Dachau Concentration Camp and Memorial Site (Germany). Seeking to balance the institutionally produced projects with cultural texts and experiences emerging outside the institutional fold,

the final case study considers video games as part of the wider commercial entertainment sector (US). However, as will become clear in chapter five, my investigation reveals that the video game industry in this context is also tightly bound to traditional Holocaust memory discourses and wider institutional practices.

While there are significant continuities in practice, there are also some important shifts which are not technologically driven. The field of digital Holocaust memory practice is beginning to decenter the survivor, who has been at the heart of Holocaust commemoration, memorialisation and pedagogy for the more than six decades. In some ways marking a double liberation, (digital) media has long carried out its promises to preserve and protect survivor testimonies for future generations. As Amit Pinchevski demonstrates we can trace the "first generation of the media of Holocaust testimony" (Pinchevski, 2019, p.88) as far back at 1946 to David Pablo Boder's "Armour Model 50 wire recorder" (then state-of-the-art technology), which he used to record interviews with survivors in refugee camps across Western Europe (which have since been digitalized and made available online) (Shandler, 2017, p.3; Pinchevski, 2019, p.88). This preservation rationale soon gave way to "the second generation" with the development of magnetic tape at the Fortunoff Video Archives at Yale University in the 1970s (which will be explored in the next chapter), now concerned with both preservation and reception. Finally, the "third generation of the media of Holocaust testimony" has arrived with the digital projects being created by the USC Shoah Foundation explored below. These, Pinchevski argues, are "concerned primarily with reception – more precisely, with interaction as a means for memorialization" (2019, p.89). Principally interested in this final stage, this work explores the possible implications of this focus on interaction and puts forward

an understanding of digital Holocaust witnessing as a means to take moral responsibility.

In broadening the possibilities for digital Holocaust memory initiatives beyond survivor testimony, we have recently seen a surge in digital mapping, 360-degree photography, photogrammetry, 3D modelling, mixed reality applications at former sites of Nazi persecution, and a renewed interest in digitisation projects for material objects and artefacts. More broadly, this shift can be mapped within the move from "The Era of the Witness" (Wiveroka, 2006) to what is increasingly being referred to as "The Era of the User" (Hogervorst, 2020; Ebbrecht-Hartman and Henig, 2021). Within this new paradigm, digital projects reconfigure our relation to the past and invites us to take an ethical and moral stance through intense interactive experiences. They invite us to enact, to examine, to explore to "act" in various ways and in doing so ask us to consider our relationship to the Holocaust as event and memory and the place of the (now absent) survivor.

This thesis will address the following key questions:

1. What is new and not now about digital Holocaust memory practice?
2. How might existing projects allow us to develop a concept of digital Holocaust witnessing?
3. What roles can (new media) technologies play in Holocaust memory?
4. What are the affordances for moral response?

It will do so in two parts:

The first half focuses on the extensive efforts the USC Shoah Foundation has made to "future proof" survivor testimony, tracing one particular survivor, Pinchas Gutter across two different digital projects. Emerging in the 1990s, the USC Shoah Foundation (formally the Survivors of the Shoah Visual History Foundation) has a rich history of recording, preserving and disseminating survivor testimony. Pioneering the first digital Holocaust memory project as early as 2010, the USC are at the forefront of digital Holocaust memory initiatives, continuing to lead the field as they rapidly expand their digital portfolio. This thesis will explore two projects which have a particular emphasis on simulating the face-to-face encounter with a Holocaust survivor, *The Last Goodbye* and *Dimensions in Testimony*.

The second half, by contrast, shifts its attention to two case studies which foreground digital Holocaust landscapes. Particularly focused on German concentration (and labour) camps as experiential spaces, this research considers the role these sites play in digital encounters, particularly in mixed-reality and simulated environments. Joined together through their specific emphasis on the period and theme of liberation, these examples serve to demonstrate a different kind of encounter. These projects grapple with the essential tensions of proximity and distance, by placing emphasis on a first-person encounter with the historical event itself. Indeed, by the final chapter, the reader is faced with a completely simulated digital world (the video game) which demands that we radically rethink our attachment to material remnants, documents and photographs, the survivor's body, and the physical landscapes in which the events themselves took place.

Following Nash's approach to interactive documentary, itself inspired by notions of "the player-as-analyst", I have engaged with each case study as "simultaneously

product (‘text’) and performance (process)” (2022, p.13) as a way of critically evaluating the experiential dimensions of each project. Taking a phenomenological approach, then, this research goes beyond the representational paradigm and investigates the mediation of Holocaust memory as practice and experience. Put differently, while textual analysis remains an important tool in my methodology, I am primarily concerned with how these projects position the user as an agent (with a greater or lesser degree of agency) in relation to mediated experiences that engage Holocaust memory in a variety of ways. I approach interactivity through the lens of performance, that gives scope for layers of analysis that connect user experience and audience positioning with a concern for the moral potential of user actions. Digital witnessing is a performative possibility, albeit as with media witnessing more generally, fundamentally fragile.

I have personally engaged with each case study through broadly autoethnographic research methods and provide an in-depth description of my experiences in each of the chapters below. While this research remains speculative and based on my personal encounter, it nonetheless offers some important ruminations about the possibilities of digital witnessing which can form the basis of larger audience studies moving forward.

Crucially, in the case studies that follow, I want to highlight that what we are asked to do in these digital worlds is, in fact, nothing new and is deep entrenched in traditional Holocaust memory practice. For instance, we are being asked to converse with Holocaust survivors in a face-to-face encounter, embark upon guided tours of former concentration camps and engage in photographic practices therein. Hardly radical activities, users are invited to walk, talk and photograph. What *is* significant,

however, is the way in which these experiences – through their technological specificities – may amplify and extend our capacities to witness and broaden the moral horizon. Although necessarily fragile, they have the potential to communicate something to us which enables a renewed understanding of our responsibility for the future of Holocaust memory. Through various spatial-temporal configurations, the critical moment being "noticing and doing" (Miles, 2014), the moment of interaction has the potential to confront the user with a moral choice. This moment is rendered into discourse through the entanglement of the human (body) and the computational machine, it is a digital language that emerges through our participation and interaction with the interface.

It is important to note that the Covid-19 pandemic derailed plans for field research and placed significant limitations on engaging with these projects in-situ. However, it has also presented some unforeseen opportunities for engaging with projects that transferred online and thus, has enabled me to make an original contribution to this research. This is particularly the case with chapters three and four, as I approach both case studies as experiences as intended within their museum contexts, but also dedicate significant attention to their online substitutions as experiences at home.

Thesis Breakdown

The first chapter is primarily concerned with foregrounding the shift from "The Era of the Witness" to "The Era of the User". Focusing on the possibilities of media witnessing, I situate digital memory practice in an historic context drawing connections with broadcast media practices that increased the visibility of Holocaust survivors during the 1960s. Establishing the survivor as the "primary witness", then, I wish to highlight that audio-visual media has enabled the authoritative voice of the

survivor to occupy a central and global role in Holocaust memory, education and commemoration.

As will be made clear, this is not an understanding of media as simply facilitating the dissemination of testimonies but is rather integrally and intricately linked to the transmission of trauma itself. Pinchevski's (2012) notion of the "audiovisual unconscious" is an exemplar in this regard, as he makes clear it is only with the technological capabilities of audiovisual media (its ability to record, pause and rewind) that we can read and recognise the fragments of traumatic memory in Holocaust survivors accounts, its silences, slippages, stammers and stutters. It is in this context, that the creation of the Fortunoff Video Archive and the USC Shoah Foundation is of paramount importance, thus, this chapter also introduces what Geoffrey Hartman termed "videotestimonies", focusing specifically on the opportunities they have offered us to partake in the act of witnessing, or as Felman and Laub put it, to "witness the witnesses" (1992).

This discussion acts as a springboard into the second half of the chapter which turns its attention to Holocaust memory and new media practices. Locating "The Era of the User" within "the experiential turn" occurring within the museum and heritage sector more broadly, this section highlights how digital media technologies are being harnessed to offer visitors/users the opportunities to engage with the past as a mode of interactive *experience*. Bringing together important research in this area of study, I explore how scholars have theorised the interactive dimensions of digital memory projects as inviting embodied and experiential encounters with the past. Drawing on these foundations, I will introduce a framework for an analysis of

digital witnessing to consider its potential as an affective and performative form of "*doing* memory practice" (Walden, 2019, p.12) (italics added).

Chapter two will introduce the first USC case study, *The Last Goodbye,* a documentary VR experience which invites the user to visit Majdanek Concentration Camp with survivor, Pinchas Gutter. While there is an increasing tendency for the creative industries to celebrate VR as an 'empathy machine', scholars continue to problematize the notion of empathy for the risks its poses in relation to the Other's suffering. While the stakes are arguably heightened in the context of meeting a Holocaust survivor in VR, I nonetheless seek to explore the ways in which the experience frames the user in relation to Pinchas through an essential interplay of proximity and distance. In paying critical attention to the positionality of the user, then, I argue that *The Last Goodbye* invites us to imaginatively occupy a new perspective, to virtually enter into the experience through an 'as-if' orientation – *as if* they are part of the family. This orientation is not only formed through the mode of address but through the structure of the experience as it unfolds within the mediated concentration camp. As I will demonstrate, the project invites the user to performatively partake in a familial return visitation, a mode of witnessing which has a long history within Holocaust memory practice and is firmly rooted within Jewish traditions and liturgy.

Following on from this, chapter three, will introduce the reader to Pinchas once more, but this time within the USC Shoah Foundation's *Dimensions in Testimony* project. While there is no shortage of academic attention dedicated to interactive testimony installations, this chapter seeks to make an original contribution by considering the online iteration, a substitute for the experience which was

transferred onto the *IWitness* platform during the pandemic. Drawing on recent literature (and criticisms), this chapter puts forward a new understanding of the technology, which foregrounds the affordances of the database, particularly in the (post)-pandemic climate. Rather than dismissing the project for its calculated algorithmic processing of testimony as 'cold hard storage', I will suggest that it is precisely the logics of the database and the modality of computational communication which promote an affective and at times, overwhelming encounter with survivor testimony. Indeed, I will show that it is by approaching Pinchas as an entanglement of the human, computer and machine that new possibilities are opened up for digital witnessing even after the survivors are no longer with us (a central ambition for the project). Considering the framing of the user and the mode of address, I once again look back to audio-visual testimony to compare the traditional role of the VHA (Visual History Archive) oral history interview with my experience online. Through this comparative approach, it becomes clear that the project enfolds me into a position of responsibility, requiring a significant amount of emotional and physical labour that in turn, promotes an ethical stance.

Chapter four investigates the affordances of mixed reality through *The Liberation* AR mobile/tablet application at the Dachau Concentration Camp and Memorial. This is a digital guided tour which enables visitors to superimpose historical photographs from the liberation over the present-day memorial site. Drawing on theories of historical reenactment and affective witnessing, this chapter argues that the user is invited to reenact the role of the American liberators through (re)photographic practices. Foregrounding the participatory ambitions of the project as a mode of embodied and experiential knowing, I investigate how the visitor/user is invited to imaginatively occupy the role of the first-person witness to affectively

engage with the archive across the spatiotemporal divide. Teasing apart the differences between the in-situ and online experiences, this chapter also explores the 'home mode' version (another project converted during the global lockdowns) to advance Frosh's argument for the possibilities of digital Holocaust witnessing through the GUI (2019).

Chapter five enters into the most contested territory for digital holocaust memory practice: video and computer games. Employing *Call of Duty: WWII* as the principal case study, I consider the role the *player* has within the simulated labour camp. Advancing Ian Boogst's (2006) theory of "procedural rhetoric" (which also finds expression in chapter three) I seek to demonstrate that game mechanics themselves can issue persuasive arguments through what they allow and disallow the player to do within the gameworld. Paradoxically, however, my investigation exposes how the structure and processes of the game discourage play and limits interactivity within the camp setting. It follows that in order to access the dominant witnessing frame, the player is forced to effectively *stop playing* the game. As will become clear, the witnessing lens is tightly bound to the Americanisation of the Holocaust, or rather, to the "nativisation" and "nationalization" (Cole, 2004) of the Holocaust in American memory.

Part I

(New) Dimensions in *Witnessing*?

The USC Shoah Foundation

1. Holocaust Memory Practice and Digital Witnessing

> In order to know, we must *imagine* for ourselves. We must attempt to imagine the hell that Auschwitz was in the summer of 1944. Let us not invoke the unimaginable. Let us not shelter ourselves by saying that we cannot, that we could not by any means, imagine it to the very end. *We are obliged* to that oppressive imaginable. It is a response that we must offer, as a debt to the words and images that certain prisoners snatched for us, from the harrowing Real of their experience. So let us not invoke the unimaginable.
>
> Georges Didi-Huberman, 2003, p.3 (italics in the original)

Imagination is crucial for the future of Holocaust memory practice. As we hurtle towards a post-survivor age, Didi-Huberman's call regains a new urgency; "we must imagine for ourselves". The sharp rise in interest in the potential of the digital to preserve, revive and enhance Holocaust memory and education is intricately entangled with the emergence of new media technologies and the increasingly central role digital media plays in our daily lives. Anticipating the shift from "living memory" to "mediated memory" (Young, 2002), prestigious Holocaust organisations, institutions and heritage sites have been experimenting with new modes of storytelling and digital formats for the last decade. However, as has been indicated, the outbreak of the COVID-19 pandemic underscored our reliance on digital communication

technologies and points, at least momentarily, to “the absence of the survivors while they are still with us” (Ebbrecht-Hartmann, 2021, p.1096). As a result, the global lockdowns provoked a surge in social media initiatives created not only by professional memory institutions, but also by grass roots organisations and members of the public. Put simply, the pandemic accelerated the shift already in motion; we have arrived at the digital turn in Holocaust memory.

The rapidly expanding list of digital tours, digital games, augmented and mixed reality applications, cinematic virtual reality, digital mapping, photogrammetry, 360 degree-photography/video, 3D modelling, and interactive survivor testimony installations illustrates a momentum with no sign of slowing down. What once seemed like a niche area of investigation has now ballooned into a field of study, with an ever-increasing list of digital initiatives that are now far beyond the scope of any single research enquiry. Such projects challenge and disrupt traditional “notions of representation, genre, textuality, and authorship” that we use to make sense of analogue media (Nash, 2022, p.2). Complicating our understanding, digital media confronts us with computational machines, software, algorithms, and interfaces which reconfigures our relationships to texts, technologies, and to memory discourses. This, as I will explore throughout this thesis, offers new possibilities for engaging with Holocaust memory and more importantly, can expand our capacities to witness across the ever-growing spatio-temporal divide.

However, it is not my intention to propose a radical break from what has come before. While these projects certainly offer highly experimental and novel ways of "doing memory itself" (Walden, 2019b, p.12), they are still inherently linked to – and informed by – a rich tradition of established memory practices and cultures. The field of media archaeology has shown us that "new media" is rarely new but is instead inherently linked to its predecessors. Indeed, David Bolter and Richard Grusin have influentially argued that all media is remediation, and that digital media remediates pre-digital formats (2000, p.15). Rather, I propose here, as Kate Nash does with regards to interactive documentary, that the first generation of digital Holocaust memory projects are best conceived as "both evolutionary and revolutionary" (2022, p.2). The case studies explored below, especially those created and produced within established institutional settings, look to digital culture to develop novel modes of storytelling while remaining firmly rooted within discourses of Holocaust education, commemoration and memorialisation.

As indicated in the introduction, the projects explored throughout this thesis invite the public to engage in the kind of memorial activities that they have already been doing for decades; listen, talk, walk and photograph. They are encouraged to listen to Holocaust survivor testimony, to ask survivors questions about their experiences, to visit former sites of Nazi persecution and engage in photographic practices therein. Indeed, Victoria Grace Walden makes plain, a study into digital Holocaust memory practice must necessarily be concerned with "the negotiation between digital specificities and the

continuation of long-established modes of remembrance, curation, archiving and pedagogy" (2021, p.3).

1.1 New Dimensions in Holocaust Memory Practice

To launch this investigation, I want to begin by considering what is both *new* and *not new* about digital Holocaust memory practice. In order set up a framework for my analysis, I will first foreground the substantial role media has played in cementing the Holocaust within public consciousness and in shaping the status of survivors as expert eye-witnesses. In turn, this section will underscore the moral and ethical dimensions which underpin both Holocaust and media witnessing, with a special emphasis placed on the listening to survivor (video)testimony. Notwithstanding the importance of survivor memoirs, written testimonies, poetry and graphic novels and their influence on shaping witnessing practices, this study forgoes an analysis of literature to focus attention directly on (new) media technologies.

To move this research forward, the following sections will explore how new media technologies are communicating our ethical and moral imperatives in novel ways, which prioritise our participation and interactivity. Put differently, this investigation begins by acknowledging the fundamental shift from what Annette Wieviorka termed "The Era of the Witness (2006) to what several scholars, including Hogervorst (2020), Ebbrecht-Hartman and Henig (2021), are calling "The Era of the User". Within this new paradigm, I seek to introduce an idea of digital Holocaust witnessing as an affective, imaginative and performative response to our obligation for the future of memory.

As mentioned above, professional memory institutions and memorial sites have been exploring the possibilities of new media technologies for the past decade. Widely considered as the first major project, the USC Shoah Foundation began discussing the possibilities of interactive survivor testimony installations as early as 2010. The first prototype for the project, which later became known as *New Dimensions in Testimony*, emerged in 2014. Despite such innovation, literature on digital Holocaust memory and practice remained sparce. Until recently, there was only one book solely dedicated to the topic. Indeed, in her review of *Holocaust Memory in The Digital Age: Survivors' Stories and New Media Practices* (2017), Sarah Jefferies praises Jeffrey Shandler's attempt to bridge the relationship "between Holocaust memory and digital media practices", arguing that there has "been a dearth of academic attention" paid to such relations (2018, p.712). While Shandler's work makes a significant contribution to the understanding of audio-visual testimony as analogue media (see chapter three), his book, as Walden has pointed out, hardly mentions how the digital has come to bear on such collections (2021a, p.4).

In the recently published edited collection, *Digital Holocaust Memory, Education and Research* (Walden, 2021), then, we make a collective effort to foreground the very particularities of the digital in relation to established media formats and memory practices. The chapter contributions explore, for example, VR documentary, selfie videos, and 360-degree films among others, which all recognise a particular connection to their audio-visual predecessors. As Walden reminds us, Holocaust memory "evolved alongside

the domestication of television, and later the VHS", she continues, "video was so essential to mediating the Holocaust in the broadcast era" (2021, p.3). Thus, it is important for this study to start by tracing the interrelations between earlier forms of audio-visual media and the emergence of the audio-visual witness, in order to propose an understanding of digital witnessing in the case of new digital technologies.

1.2 Witnesses to a Drowning World

Annette Wieviorka's work (2006a) (first published in French as *L'ère du témoin* in 1988) has been particularly impactful in shaping our understanding of how the survivor has come to occupy an authoritative and central position within memory culture. Marking three successive historical stages of testimony, Wieviorka calls the initial stage "Witnesses to a Drowning World" which took place during the Second World War, the second "The Advent of the Witness" which is marked by Eichmann trial and the third, "The Era of the Witness" which arrives during the late 1970s and 1980s onwards. This framework is particularly productive for understanding the essential role audio-visual media played in ensuring the visibility of perpetrators and survivors and cementing the Holocaust in the public consciousness.

While it is the latter two models which I will devote most attention, it is worth beginning with Wieviorka's initial stage to offer an understanding how the media itself, specifically film – functioned *as witness* in the immediate post-war years. This idea finds expression within Paul Frosh and Amit Pinchevski's seminal work on media witnessing, as they propose a

framework for understanding witnessing *in*, *by*, and *through* the media" (2009, p.1) (which I will return to in the next chapter). While they acknowledge that this model has to some extent collapsed in the digital media landscape (Frosh and Pinchevski, 2018), the distinctions are useful for thinking about early forms of audio-visual media. Demonstrating that the concept has value across a broad range of contexts and disciplines, media witnessing has referred to the "appearance of witnesses in media reports, the possibility of the media themselves bearing witness, and the positioning of media audiences as witnesses to depicted events" (Frosh and Pinchevski, 2009, p.1). Principally, it is this notion of the media itself acting as witness which I wish to explore further below.

Upon the liberation of the concentration and extermination camps in 1945, the Allies made use of both film and photography as a medium to document the harrowing scenes they discovered (Zelizer, 1998). Judith Keilbach (2016) draws attention to two films which include excerpts of the first eye-witness testimonies; *Memory in the Camps* (1945) an unfinished film produced by the British Ministry of Information, (for which Hitchcock is often overly credited for his brief work as an advisor) and the American production, *Nazi Concentration Camps* (Stevens, 1945). Not only does the technological capacity to capture and record (and therefore play back) render film and photography powerful in the context of the Allied discovery of the camps (see chapter four) but as Keilbach notes, it evidences public speech acts being made as early as 1945. Testifying on behalf of the former prisoners as a collective, individuals in front of their fellow survivors used plural language when speaking into the microphone. Moreover, the frontal

placement of the sound equipment forced them to look directly into the lens of the camera reinforcing “not conversational patterns in an interview situation” but rather the conditions for making a “public statement” (Keilbach, 2016, p.206). Crucially, “sound recordings such as these were the exception, however, because they were technically difficult to produce, and the format of the interview was not yet established in documentary films” (2016, p.205). Nonetheless, it is important to acknowledge the ways in which film and photography more widely created the conditions for bearing witness in the camps upon liberation.

Holocaust survivor and renowned literary, Primo Levi, recalls that “being interviewed was a unique and memorable occasion, an event we had been waiting for since the day of the liberation and that even gave our liberation a meaning” (1995, p.74). As with the account above, the camera-eye itself performs in a “triad” of witnessing relations of survivor, interviewer and recording device (Pinchevski, 2017). Urging us not to overlook the fundamental presence of the camera (albeit referring to a different type of camera being used for the recording of videotestimonies in the 1970s), Pinchevski argues, “the camera facilitates the listener’s facilitating; it serves as a technological surrogate for an audience in potentia – the audience for which many survivors had been waiting a lifetime – providing them with a kind of holding environment” (2019, p.49). Indeed, as Wieviorka affirms, “bearing witness in front of a camera and being able afterward to show the tape to their grandchildren holds an essential importance for the survivors” (2006, p.394). In this case the technology performs as holding environment for successive generations yet to be born.

Crucially, it not only testifying to their own experiences for future generations but the imperative to speak out for – and on behalf of those who perished, which is the vocation for many survivors. Most prominently, Primo Levi, in his last memoir *The Drowned and The Saved* (1989) affirms the accounts of those who survived are only a narration on behalf of another, by which he refers to those who were murdered. He exclaims,

> I must repeat: we, the survivors, are not the true witnesses…We, the survivors are not only an exiguous but almost an anomalous minority: we are those who by their prevarications or abilities or good luck did not touch bottom. Those who did so, those who saw the Gorgon, have not returned to tell about it or have returned mute, but they are… the complete witnesses, the ones whose deposition would have a general significance. They are the rule, we are the exception.
>
> (1989, pp.83-84)

While Levi attributes the terms "true witnesses" and "integral" witnesses to those who did not survive the Holocaust, survivors have nonetheless emerged as critical public figures, assuming the role of "primary witnesses" (I will refer back to Levi's writing, particularly to his use of the term "Muselmann" in chapter four). Endowed with a special status, survivors have a direct connection to the past by the virtue of "being there" – this is what John Durham Peters (2001) deems the "paradigm case for witnessing".

Peter's work has informed studies on witnessing in a wide range of disciplines. While tracing the extensive historiography of the figure of "the witness' as it emerges within media theory (Ellis 2000; Frosh 2006; Frosh and Pinchevski 2009) and Holocaust studies (Felman and Laub, 1992; Hartman, 1996; LaCapra, 2001; Langer 1991; Wiveroka, 2006) is beyond the scope of this chapter, scholars in both fields point to the importance of the witness originally appearing within a legal context. In law, writes Peters, "the notion of the witness as a privileged source of information for judicial decisions is ancient and is part of most known legal systems". Beyond this, he continues, "In theology, the notion of the witness, especially as martyr, developed in early Christianity, though it has resonance for other religious traditions as well". The third, and most important for our purposes, is "the witness as survivor of hell, prototypically but not exclusively the Holocaust or *Shoah*" (Peters, 2001, p.708). Indeed, legal language is entangled in Elie Wiesel's exclamation that "My role is the role of the witness…Not to tell, or to tell another story…is to commit perjury". As Shoshana Felman points out, Wiesel frames the act of witnessing as a way "to take responsibility for the truth: to speak, implicitly, from within the legal pledge and the juridical imperative of the witness's oath" (1991, p.39). Her observations here should be quoted in full;

> Memory is conjured here essentially in order to *address* another, to impress upon a listener, to *appeal* to a community. To testify is always, metaphorically, to take the witness's stand, or to take the position of the witness insofar as the narrative account of the witness is at once engaged in an appeal and bound by an oath. To testify is

> thus not merely to narrative but to commit oneself, and to commit the narrative, to others: to take *responsibility* – in speech – for history or for the truth of an occurrence, for something which, by definition, goes beyond the personal, in having general (nonpersonal) validity and consequences.
>
> (1991, p.40) (italics in the original)

As will become clear below, the post-war Nazi trials conflate and collapse Peter's model, as the victims of the Holocaust, through their "speech acts" transformed into expert survivor-witnesses within the court room. Acknowledging that "witnessing is an intricately tangled practice" (Peters, 2001, p.707), then, Peters presents the overlapping complexities through a concept of the witness that "can be an actor (one who bears witness), an act (the making of a special sort of statement), the semiotic residue of that act (the statement as text) or the inward experience that authorizes the statement (the witnessing of an event)". In some contexts, to be a witness is also to perform a role, which is particularly crucial to the understanding of digital witnessing I will put forward below. In all cases, Peters argues the witnesses' status is constituted through a specific ambiguity that is related to the "fragility of witnessing" – he makes clear; the "journey from experience (the seen) into words (the said) is precarious" (2001, pp.709-710).

1.2.1 The Nuremburg Trials

The first set of International Military Tribunals (IMTs) in Europe, more commonly referred to as The Nuremburg Trials (1945 to 1949), are particularly noteworthy in this regard. These trials prosecuted and held Nazis

accountable for their crimes committed under the Third Reich, among them were twenty-four of the chief officials, including Rudolf Hess (Hitler's deputy to the Nazi Party), Hermannn Göring (a commander of the Luftwaffe air force) and Albert Speer (Hitler's architect).

Leshu Torchin writes at length about the role three documentary films played in the trials (and beyond); *Nazi Concentration Camps* (Stevens, 1945) (comprising liberation footage), *The Nazi Plan* (Kellogg, 1945) (a four-hour assemblage of Nazi propaganda and newsreel footage) and *Original German Eight Millimeter Film of Atrocities Against Jews* (a 90 second fragment of found footage). She argues, these films "helped establish the horrific events not simply as misfortune, but as a distinct crime, and thus legally and politically actionable (2012, pp.61-62). As her argument attests it is precisely in enmeshing film language (associated with classical Hollywood) with legal and political factors that these films articulated something about these crimes that exceeded the traditional frameworks of law and language.

Advancing on the notion of the film *as* witness, then, Torchin goes further to suggest an understanding of the documentaries used during the proceedings as possessing "a rhetorical capacity" communicating a distinct point of view (2012, p.74) and therefore functioning as "both witness and testimony". She writes,

> The camera eye has seen and recorded a variety of images. The ensuring films offered an assemblage of this footage, crafted into a narrative of suffering and injustice, and then presented in the

> courtroom in order to define a crime, to prove it, and then to punish the offenders. In other words, these documents bore witness to the truth of an occurrence for the purposes of *engaging the responsibility of the listener* and transforming the world. Even if not within a strict legal sense – they were not subject to cross examination, for instance – these films provided testimony.
>
> (2012, p.63) (italics added)

It is not only the idea of media as witness, but also the notion that media hails the listener into a form of moral address, which I wish to highlight here and draw out in more detail below.

Ross J. Wilson's (2021) recent work on witnessing also pinpoints the Nuremberg trials as the event which "made witnesses of wider society as the events were relayed through newspapers, radio and television". He goes so far as to claim that the use of media at the Nuremberg trials triggered "a moral revolution which made the entire world a witness" (2021, no pagination). But a witness to what and to whom? Scholars working on this topic often compare the Nuremberg Trails with the Trial of Adolf Eichmann (one of the leading architects of the "Final Solution") which followed in Jerusalem in 1961. Most strikingly, such comparisons highlight the absence of survivors, as the "the Nuremberg prosecutors called very few witnesses to the stand who could have presented the Holocaust in a personal, human light; instead, the court relied preponderantly on documentation that portrayed the trial as humanity versus evil" (Yablonka and Tlamin, 2003, p.9). Indeed,

these observations echo Gideon Hausner (the chief-prosecutor at the Eichmann trial) who, writing on the decision to focus principally on documents, exclaimed, that Nuremberg “failed to reach the hearts of men” (1996, p.291).

While this is to some extent a reflection of the time (survivors in the immediate post-War years had just started to enter the country and those who were there lived on the periphery of mainstream society), it nonetheless reinforces the point that the trial was concerned with World War II and not the Holocaust itself. More specifically, as Yablonka and Tlamin insist, it was preoccupied with “Nazi criminals, the perpetrators of mass murder and instigators of war, but not on the killing itself” (2003, p.8).

Taken together, these works reinforce the value in understanding the capacity for audio-visual media to act as *witness* by proxy, in lieu of the victims and survivors who remained largely out of sight during this period. Is this not, at least to some extent, what we are asking of new media technologies? There is certainly currency in thinking about the deep associations between witnessing and media, the ways in which different forms of media have, from the very beginning, been intricately entangled with the transmission and reception of Holocaust memory. Indeed, this thesis questions how such an understanding may (re)shape our attitudes towards the post-survivor age and the digital turn in Holocaust memory practice more broadly.

1.3 The Advent of the Witness

With no shortage on literature dedicated to this topic, it is now well established that the Eichmann trial triggered a turning point in Holocaust memory. Characterised by its "victim-orientated focus" (Felman, 2000, p.466), the trial, which foregrounded the emotive testimony of 111 survivors, brought the Nazi genocide of European Jews into focus, not just in Israel (Segev, 2000; Pinchevski et al., 2007; 2010), but on a world stage (see for example, in America; Novick, 200 and France; Wieviorka, 1998).

Echoing Peters' work on the power of the judicial witness, Wievorka maintains that,

> the extraordinary force of the witnesses' words acquired at the trial was also due to the setting in which they were uttered, which gave them a political and social significance that no book could confer. Their political status was due to the fact that the state, represented by the prosecutor, underwrote their testimony and thus lent it all the weight of the state's legitimacy and its institutional and symbolic power. The witnesses' words attainted a social dimension because they were uttered before judges whose responsibility it was to acknowledge the truth they contained and because they were relayed to the media of the entire world. For the first time, the witnesses had the feeling of being heard.
>
> (2006, p.390)

Going beyond the judicial context, Pinchevski and Liebes argue, while it was clear the survivors' accounts were not needed to make the conviction (some witnesses even spoke about experiences that were outside of Eichmann's sphere of influence), it "transformed the trial from a criminal litigation into a public narration of trauma" (2010, p.267). Their claims echo Shoshana Felman, who has influentially contended that this caused the breaking of "the legal frame". Transforming the courtroom into what she termed a "theater of justice" (2002, p.4), she argues that the legal framework was deficient to the task of translating or making sense of this trauma, which ultimately led to an "acting out" of trauma on a public stage (I will expand upon this idea in chapter three).

To be clear, however, this is far from the first time that survivors of the Holocaust had enacted a form of public speaking. Chiming with Keilbach's research on the liberation footage mentioned above, Alejandro Baer and Natan Sznaider in their work, *Memory and Forgetting in the Post-Holocaust Era: The Ethics of Never Again* (2017), point to one of the first public commemorations performed by survivors upon liberation in Buchenwald. Following a speech made on 19 April 1945, they held signs inscribed with the oath 'never again' and loudly declared 'we swear' to bring justice and peace to the new world. While Popescu and Schult (2020) acknowledge that this sentiment may not have necessarily meant the same thing for Jewish survivors and the resistance fighters at the time, this early example demonstrates a willingness to bear witness and to speak about what they had seen. Drawing on Austin's *How to Do Things with Words* (1962), Popescu and Schult maintain, that 'when uttered in the appropriate context by

authorised persons, and *taken seriously by the receivers*, speech acts can in fact influence the world' (Popescu and Schult, 2020, p. 136) (italics added). It is once again the emphasis placed on the demand for a receptive and attentive audience (recall Torchin) which I wish to explore further in relation to the Eichmann Trial.

1.3.1 The Eichmann Trial

Writing about the significance of the radio broadcasting of the Eichmann Trial in a national context, Pinchevski and Liebes argue that "radio facilitated a fundamental shift in the status of Holocaust survivors in Israel: previously seen as deeply traumatized, unable or unwilling to speak about what happened "over there," survivors were now invited, for the first time, to publicly bear witness to their stories" (Pinchevski and Liebes, 2010, p.268). Thinking about the technological capabilities of radio at that time, (television did not yet exist in Israel) they demonstrate how the dissociation of sound with the image of the survivors actually made them more accessible to the public, liberating them from the physical markers of trauma on the body, and the tattoos that rendered them 'strange'. They write, the "transfiguration induced by radio of the speechless body into disembodied speech" seemed a "necessary trade-off: for trauma to gain voice, the body – the locus of trauma – had to be discarded" (2010, pp.277-278). Furthermore, we could think about the significance of the radio in comparison to the challenges sound posed to the Allied film units upon liberation. Indeed, Keilbach's research indicates that dubbing (in English) often led to mistranslations which warped the survivors' sentiments, and worse still, male voiceovers spoke over the recordings of female prisoners who were trying to communicate their experiences (2016, p.207).

Most important for our purposes, Pinchevski and Liebes argue the radio broadcasting "left an indelible acoustic imprint on those who listened", as they were confronted with "an entire catalog of sonic moments that struck with the audience: accents, silences, echoes, cries, whispers – the auditory traces of the trial" (2010, p.280). Thus, it is the distinctive role of the radio, as a medium of mass communication, with its ability to transmit the trial to everyone "in houses and office, in cafes and stores and buses and factories" (Segev, 2000, p.350), and it being met by passionate listeners, which subsequently led to the Holocaust becoming "a collectively shared trauma in Israel" (Pinchevski and Liebes, 2010, p.271) and the defining the very status of the Holocaust survivor as a legitimate "primary witness".

Scannell's work on the "communicative structures" of radio and TV (2000) is useful in this context as he proposes an understanding of the mode of address as a "for-anyone-as-someone" structure. While his argument rests upon the associations of the documentary and news genre and its anchoring through repetitive daily programming, the Eichmann Trial (albeit with irregular live transmissions from the courtroom itself) became to a certain extent an attachment to the evening news as "a daily trial diary, *Yoman Ha'mishpat*, a thirty-minute-long recap of the day's sessions" was broadcast immediately afterwards (Pinchevski and Liebes, 2010, p.265). The point to take away from Scannell is that "the conditions of believability" are not solely based in factual content but rest upon who is telling it and how that is communicated. This matters greatly of course, when it comes down to the

survivors, who assumed an authoritative voice as their accounts were taken on the level of document in the courtroom (recall Wieviorka above).

This communicative model, then, "implicates a someone someplace to receive it who turns out, in each case, to be 'me', Scannell continues, I appropriate this as an "aspect of my experience and yet at the same time this experience is shared by countless others" (2000, p.11). To be sure, this form of double address is fundamental to locating listeners within relations of responsibility. On the one hand, testimony is given to the court and to a mass audience, but the nature of the radio (even more than television) creates an intimacy in which it speaks directly to me as *someone*. This mode of address has pertinence for the USC case studies, *The Last Goodbye* and *Dimensions in Testimony* explored in chapters two and three.

1.3.2 Night and Fog

It should also be noted that Alan Resnais' (1956) thirty-two-minute poetic documentary *Nuit et Brouillard* (*Night and Fog*) was used as evidence during the trial proceedings and most strikingly, was shown to Eichmann in its entirety during a pre-screening at the request of the defense. Considered as one of the most important films on the topic (discussed further in chapter four), many scholars have written on its mode of representation, particularly with its interplay of documents, archival material, montage and Jean Cayrol's commentary (see Hebard, 1997; Wilson, 2005; van der Knaap, 2006; Pollock and Silverman, 2011).

The additional screening was filmed by the renowned American documentary maker Leo Hurwitz, who was responsible for recording the

wider trial proceedings, (the first videotaped courtroom event). This serves to not only reinforce the power of film to act as witness (to Eichmann's confrontation with *Night and Fog* as document), but also forms a kind of radical poetics, a form of social commentary from Hurwitz (who is credited as a pioneer of the social documentary). Analysing his recording, Sylvie Lindeperg explains how Hurwitz provocatively juxtaposes close-ups of Eichmann's face with the victims on screen (only possibly through the technological specificities of the medium). Indeed, he employs these filmic techniques to "create a fictitious face-to-face confrontation between Himmler and Eichmann", as his preference for shot/reverse shot sequences "links two trials in two different eras, turning the camera back on Eichmann just after he has seen the images of the accused on trial in the immediate post-war period, each claiming in turn, "I am not responsible"" (Lindeperg, 2011, p.68). In effect, the images are brought into a narrative order which not only denounces the perpetrators but encourages a moral sentiment towards the victims. The confrontation created through these shots echo the wider trial recording which was constructed in relation to the architecture of the courtroom itself (the auditorium of the future Jerusalem theatre, Beit Ha'am). Detailing the layout, Lindeperg explains that the defendant's dock faced the witness stand, thus, Hurwitz positioned two cameras either side so that they would face each other (2016, p.228).

In a letter sent early in the trial to *New York Times* reporter Jack Gould, Hurwitz self-reflexively comments on his direction. Speaking of the trial more broadly, he "explains that by mixing camera views he can organize the play of glances exchanged between the trial's main participants or juxtapose

simultaneous reactions to expose features that the spectators in attendance did not necessarily remark". Comparing his experience to being in a mine, he describes his filmmaking as "digging out the inexpressible terrors, brutalities, the icy adaptations of inhumanity, the consignment of other people to thingness" (Delage, 2014, pp.174-175).

Somewhat astoundingly, Hurwitz's recording has a total of 307 shots (combining both his shot/reverse shots with some of Renais' original film that carry over), this matches the exact same number of shots contained in *Night and Fog*. While undoubtedly unintentional, Lindeperg, nonetheless, reads the recording of the session as a new version of the original documentary, one that now entangles the look of the perpetrator and the authorial hand of the second filmmaker (2011, p.68). Following our understanding of the film-as-witness and film-as-testimony (Torchin, 2012, p.74) within the context of the trial, we could go further to suggest that under the conditions of its creation, Hurwitz's film carries out its obligation in the chain of a memory, to bear witness to the media witness. As Pinchevski reminds us, what is distinctive about the mediation of trauma "is the way a specific medium figures in the process whereby trauma gains articulation" (2019, p.38). Put differently, the chain of witnessing is being carried out through the mechanics of audio-visual media, it is in a circle of audio-visual witnessing relations.

Notwithstanding the important research which seeks to nuance national responses (in the case of America see Shandler, 1999), or the ongoing studies which decenter the trial by rethinking the emergence of Holocaust memory

in public discourse more widely (Rothberg, 2007), the Eichmann trial is cited once more here for its status as a critical "media event": a historic event that is experienced as such publicly through the media (Pinchevski, 2019, p.40). That which carved out a space for survivors to bear witness, as "they were summoned to address the court, and through it, the entire world" (Pinchevski and Liebes, 2010, p.277).

1.4 The Era of the Witness

The 1970s subsequently ushers in Wieviorka's third stage, "The Era of the Witness" (Wieviorka, 2006a) which is defined by two reinforcing processes: not only an increasing prominence of survivors but a "social demand for [their] testimonies" (2006a, p.87) and, secondly, mounting concerns over their inevitable passing. I will thus highlight the increasingly important role audio-visual media played during this stage, particularly in foregrounding the role of the active listener, before moving the discussion onto Digital Holocaust Memory and "The Era of the User".

NBC's 1978 television mini-series *Holocaust* is also understood as a catalyst for cementing the Holocaust in the popular imagination, as it was watched by 222 million people in fifty countries, reaching unprecedented viewing figures for its time (Cory, 1980; Shandler, 1999). In retrospect, *Holocaust* has taken on further significance as "Hollywood's first attempt to accommodate this subject matter to its existing generic styles". Extremely controversial, the "offence" argues Langford, "arose above all from the perception that the Holocaust was indeed being illegitimately accommodated *to* Hollywood norms, rather than what seems to have been a felt imperative that it explode

them" (1999, p.25) (italics in the original). Amongst its many critics was renowned Holocaust survivor, Elie Wiesel (then the Chairman of the President's Commission on the Holocaust), who declared that it trivialised the victims' experiences. It is important to note that such criticisms (from a legitimate expert voice) subsequently triggered debates around the ethics and appropriateness of Holocaust representation which have significantly informed our memory culture and are still prevalent in intellectual debates over Holocaust representation and (re)mediation today. Notable collections on this topic include *Probing the Limits of Holocaust Representation: Nazism and the "Final Solution"* (Friedlander, 1992) and the subsequent collection, *Probing the Ethics of Holocaust Culture* (Fogu, Kansteiner and Presner, 2016).

Particularly important for our purposes is that the miniseries triggered an attitude towards the necessity of preserving and recording survivor testimony. Indeed, set against an ongoing shift in Western attitudes towards psychology and trauma, the end of the 1970s, Wieviorka notes, triggered a proliferation in archive projects and thus, "the systemic collection of audiovisual testimonies began" (2006, p.392).

1.4.1 The Fortunoff Video Archives for Holocaust Testimonies

In 1979, documentarian Laurel Vlock and Holocaust child-survivor and psychiatrist, Dori Laub, began videotaping the testimonies in New Haven, Connecticut. What was in the early stages called the Holocaust Survivors Film Project later became the Fortunoff Video Archive for Holocaust Testimonies located at Yale University. Marking a "peak period of activity", Aleksandra Szczepan, highlights that the 4,400 interviews were "conducted

by scholars who later authored some of the most significant works on trauma theory" (Felman, Laub, Langer and Hartman) (Szczepan, 2017, p.119). In fact, the term "videotestimonies" was coined by the late Geoffrey Hartman, who was academic lead of the Fortunoff Archives for more than three decades. In this context, he notes, "however important court-solicited testimonies have been, a new genre of extra-juridical acts of witnessing has come into being" (Hartman, 2016, p.14).

Recall that Pinchevski pinpoints the Fortunoff Archives as marking "the second generation of the media of Holocaust testimony" with the development of magnetic tape (2019, p.89). Videography, he writes, "was the technological unconscious of the project in combining two media functions: recording and broadcasting" (2019, p.89). Indeed, in their earlier work, Frosh and Pinchevski argue "the function of technology in this project was more than the establishment of an audio-visual archive: video cameras effectively constituted a technological surrogate for an audience of the witnessing process underway" (2009, p.4). Placing responsibility on the post-Holocaust generations early on, then, Laub maintained that it is the "empathetic listener" who must come to participate in the process of bearing witness to a traumatic experience (1992). The Listener, for Laub, "is not merely ancillary but is in fact fundamental to the process, serving a maieutic function by presenting him or herself before the witness as an open and supportive addressee, as a Thou" (Pinchevski, 2019, p.48).

To be clear, both Felman and Laub call for “witnessing the witnesses”, positioning listeners, as “secondary witnesses” and “enablers of testimony”. Laub writes,

> While historical evidence to the event which constitutes the trauma be abundant and documents in vast supply, the trauma – as a known event and not simply as an overwhelming shock – has not been truly witnessed yet, not been taken cognizance of. The emergence of the narrative which is being listened to – and heard – is, therefore, the process and the place wherein the cognizance, the ‘knowing’ of the event is given birth to. The listener, therefore, is a party to the creation of knowledge *de novo*. The testimony to the trauma thus includes its hearer, who is, so to speak, the blank screen on which the event comes to be inscribed for the first time.
>
> (1992, p.57) (italics in the original)

In this context, Michael Levine contends “To bear witness to the degrading and dehumanizing atrocities of the Holocaust is not simply to address one’s story to others. It is more fundamentally – and more tentatively – to speak in search of “an addressable you”” (2006, p.3). Taking a lead from Paul Celan’s poetry (himself a Holocaust survivor), Levine underscores the metaphor of a poem as a testimonial act, a message in a bottle making its way to an unknown subject. He stresses what is important is “the place made for the other, for “an addressable you”. He interprets this as meaning, “there will be

no “I,” no witness, without a witness to the witness, without an opening of that dialogically constituted “I” to and by the essential *possibility* of address” (2006, pp.3-4) (italics in the original).

While Levine argues it is important “not to conflate Celan’s notion of “an addressable you” with the position of the analytic listener or testimonial interviewer assumed by Laub”, it is important to note the shift from the emphasis on the survivor (body) as locus of knowledge to “the other’s necessary implication in the act and *transaction* of witnessing” (2006, p.5) (italics in the original). The emphasis on the responsibility of post-Holocaust generations to adopt an attitude of witness – which is considered a defining characteristic of the digital in Holocaust memory practice – thus has roots within the creation of the institutions themselves.

1.4.2 The audio-visual unconscious

Approaching Holocaust survivor testimony predominately through a psychoanalytic lens, Laub maintains, the listener needs to read a “phenomena” he observed during decades of clinical work with Holocaust survivors and their children (Felman and Laub, 1992; Laub, 1998; 2005). This phenomena “can be thought of as a series of concentric circles, rippling outward from the verbal content of survivors’ accounts to other modes of remembering such as their body language, facial demeanor, parapraxes, and transference” (2017, p.1). This is what Laub has influentially termed “the vicissitudes of listening”, learning to read between the lines, to hear the silence and recognise the ‘markers’ of trauma through repeated and sustained analysis. To be sure, he writes “He or she must *listen to and hear the silence*, speaking mutely both in silence and in speech, both from behind and from

within the speech, even if this simply means respect – and knowing how to wait" (1992, p.58) (italics in the original).

Advancing on Charlotte Delbo's conceptualisations of Holocaust memories within *Auschwitz and After* (1985), Lawrence Langer influentially puts forward ideas of "common memory" and "deep memory" (1991, p.6). The former attests to a chronological (and often more grounded) recollection of events, whereas the latter describes moments in testimony where a survivor is suddenly thrown into a destabilizing memory of the past as it was then (usually resulting in sharp changes in behaviours as indicated above). As Pinchevski puts it, "Deep memory is the subterranean memory that lurks beneath common memory, the traumatic *then* inflecting and intruding the habitual *now*, forever beyond proper articulation and comprehension" (2019, p.54) (italics in original).

Fundamentally, Pinchevski highlights that it is the technological apparatus which facilitates the observation of "deep memory". In other words, our capacity to interpret traumatic 'markers' depends upon the technological recording. Introducing the notion of the "audiovisual unconscious", then, Pinchevski makes clear, "videotestimony acts as an audiovisual amplification of the puncturing details of speech – gestures, postures, expressions, pauses, silences – all markers of what Hartman calls the survivor's "embodied voice"" (Pinchevski, 2019, p.51). While these details found in survivor testimony are often considered the "ultimate index" of trauma (Felman, and Laub, 1992, p.5), Laub has reiterated in recent works, that we must be self-reflexive in our approach to "avoid projecting the unspeakable onto survivors as a kind of pathological mutedness and accept responsibility for our

difficulties in listening" (2017, p.4). Indeed, I will develop these ideas in chapter three to suggest that such instructions are issued to the user *through* the new media technologies which are being tasked with 'future proofing' survivor testimony in the digital database. In the meantime, I want to introduce two final reference points which are pivotal in understanding how society has shifted from "the Era of the Witness" to "the Era of the User".

1.4.3 Claude Lanzmann's *Shoah*

The "audio-visual unconscious" comes to the fore in, what is still one on of the most highly regarded films ever made on the subject; Claude Lanzmann's *Shoah* (1985). Indeed, Wieviorka goes so far as to state "*Shoah* revolutionised the genre of testimony" (2006, p.82). Inspiring a plethora of literature, then, the film retains the attention of scholars who have investigated its production, its use of testimony, and more recently, its 220 hours of outtakes (Felman and Laub, 1992; LaCapra, 1997; Langford, 1999; McGlothlin, Prager and Zisselsberger; 2020; Vice; 2021).

Taking 11 years to film (with a subsequent run time of 9.5 hours), *Shoah* is exclusively focused on interviewing Holocaust survivors, bystanders and perpetrators and recording their first-hand testimonies, particularly in the places in which the events took place. The opening of the film is an illustrative example as it begins with an idyllic establishing shot of the present-day Narew River (closely situated to Chelmno) framed by luscious green trees (*fig 1*). Following a rowboat as it glides through the calm waters, the spectator is first introduced to forty-seven-year-old Szymon Srebnik as he sings a Polish folk tune about a "little white house". As the opening credits have already explained, Simon is reenacting the daily trips he was forced to take as a boy, instructed to sing by the Nazi guards holding him prisoner. Paying special attention to the film's topography, Margaret Olin points out

that, Szymon recollects how he helped to carry the ashes of the bodies to the river the moment “the camera is close to the surface of the water, moving downriver like the ashes”. Thus, “the very river on which he sings we now know to be filled with human ash”. Olin argues, as the film progresses, “we almost watch the survivors and witness transform one gentle, pastoral scene after another into the landscape of Hell. The very soil appears to be implicated in mass murder” (1997, p.3).

Figure 1 – Shoah (Lanzmann, 1985), Holocaust survivor Szymon Srebnik reenacting his trips down the Narew River

Another widely discussed scene is where Lanzmann interviews Abraham Bomba, a Polish Jewish barber who was deported to Treblinka and assigned to cut women’s hair who were being sent to the gas chamber. Bomba had retired form hairdressing, so Lanzmann rented a barber shop in Holon during late 1979-1980 for the purposes of the film and asked that Bomba cuts hair while giving his account. Indeed, Zolkos notes that in a discussion following a screening of the film at Yale University, Lanzmann “commented extensively on the choice of location, emphasizing in

particular the objectives in finding a setting that remained in a relation of both "distance and closeness" to Bomba's experiences in the camp" (2013, pp.61-62). Thus, considered as a provocative moment of "staged bodily reenactment", Lanzmann moves beyond the dominant modes of testifying that have been discussed so far, (public speech acts or the practice of giving a narrative account in a recorded interview). As Zolkos' study argues witnessing here is reconfigured as "a bodily and affective act, rather than a narrative and recollective practice" (2013, p.65).

A pivotal (and heavily criticised) moment of the testimony arrives after Lanzmann repeatedly asks about Bomba's response to seeing the women and children as they entered into the gas chamber. Bomba resists 'It's too horrible. Please"

> CL: We have to do it. You know it.
>
> AB: I won't be able to do it.
>
> CL: You have to do it. I know it's very hard. I know and I apologize.
>
> AB: Don't make me go on.
>
> CL: Please. We must go on.

Pointing to what is not visible within such transcripts, many scholars note the lengthy moments of silence, the facial expressions as his tears begin to fall and change in his demeanour as a clear call for us to read between the lines of trauma. Going further, Zolkos consults Lanzmann's description of the scene as he states "it was in that moment […] that I saw something alarming in Abraham's face, […] in the tone of his voice, in the silence that separated his words. There was a visible, palpable, tension in the room" (2013, p.70).

Felman's original reading of the film has been incredibly influential to scholarly debate, as she reads *Shoah* as "cinematic testimony" (1991, p.46). Also avoiding the title documentary (which Lanzmann vehemently rejects), Felman describes *Shoah* as "a film about the *relation between art and witnessing*, about film as a medium which *expands* the capacity for witnessing". Chiming with the observations made above regarding film-as-testimony and film-as-witness, she argues the film itself takes the witness' stand, it articulates the "*historical crisis of witnessing*, and shows us how, out of this crisis, witnessing becomes, in all the senses of the word, a *critical* activity" (1991, pp.40-41) (italics in the original). I will return to this discussion in both chapter two and three.

1.5 The USC Shoah Foundation

Of course, one cannot ignore Steven Spielberg's 1993 *Schindler's List* and the profound impact it has had on Holocaust memory in contemporary culture. Exacerbating debates over representation and trivialisation, (which, as we have seen, began with the miniseries *Holocaust*), *Schindler's List* has marked what Flanzbaum (1999) has termed "the Americanisation of the Holocaust" (1993 also saw the opening of the United States Holocaust Memorial Museum, see chapter five). However, it is not my intention to reenergise age-old debates about the "unrepresentability" of the Holocaust and carry them over to digital projects. Nor do I wish to make judgements about the ethics of such endeavours, but rather consider how such experiences might offer new modes of affective and imaginative memory practice. Nonetheless, it is worth noting that the taboo once surrounding Holocaust cinema has inevitably found traction with regards to digital Holocaust culture and in particular Holocaust (computer and video) games (a discussion I will return to in the penultimate chapter). In many ways this serves to reinforce the point about

remediation; as Holocaust media becomes refashioned into new digital formats, so do the debates about the appropriateness of such projects.

Notwithstanding the important film theory published on *Schindler List* (Loshitzky, 1997; Langford,1999; Doneson, 2002), I am interested in the impact the film had on survivor testimony itself, as extras working on the film set expressed their desire to share their own experiences. This promoted Spielberg to establish the Survivors of the Shoah Visual History Foundation (SVHF) in 1994, one year after completing the film. Immediately beginning their work recording videotestimonies using Betacam SP format videotapes (the broadcast industry standard at the time) (Shandler, 2017, p.15), the SVHF recorded almost 52,000 videotestimonies in 56 countries and in 32 languages between 1994 – 1999. Upon relocating to the University of Southern California (USC) in 2006, the SVHF became the USC Shoah Foundation – The Institute for Visual History and Education (hereafter USC) which currently holds 55,000 videotestimonies, the largest collection in the world. As Keilbach notes, "from a media studies perspective, the sheer number brings up new questions relating to databases, storage capacities and data compression" (2016, p.220). Indeed, the USC has since digitalised all of its interviews within its holdings and the Fortunoff Archive has completed the digital migration and development of a remote access system. It is worth noting that the USC has widened its scope to also include work on the Armenian, Cambodian, Guatemalan and Rwanda genocides, as well as current mass violence occurring in Northern Syria and Rohingya.

1.5.1 Destined for (digital) databases

It was clear from the scale at which the USC were operating (originally aiming to record 50,000 testimonies within five years), that the database was going to be an important consideration (Keilbach, 2016, p.220). Indeed, Shandler confirms, the USC thought about "making its collection of videos available through an online data retrieval system early in the institution's history, at a time when the internet was just becoming widely used" (2017, p.15). This retrieval system became the Visual History Archive (VHA) a fully indexed catalogue of survivor testimonies. The system enables users to access a portal online and search for (one-minute segments) of testimony using relevant keywords and terms (geographical locations, time periods and experience groups) associated with the content of the interview. While the USC limits its access to subscribing institutions, universities, museums, libraries and memorial sites (currently 177 institutions within 15 countries have full access via the secure network VPN), it still offers the public the opportunity to access a limited version of the VHA online which contains 4,000 interviews (upon completing the registration form).

The connections between Spielberg's film and the initial website for the VHA are worth a moment of pause. Drawing from film theory, Shenker argues *Schindler's List* "embodies Spielberg's immersive, experiential, "you-have-been-there" approach to representation and reflects his consistent interest in fostering participatory forms of reception" (2015, p.112). Tracing these ambitions within the USC, Shenker highlights that the website for the VHA invoked *Schindler's List* "as a cinematic gateway" to the portal, first showing visitors a short film of Spielberg filming on location in Kraków, Poland. The voice over narration (delivered by Anthony Hopkins) articulates Spielberg's motivations for creating the Foundation,

placing particular emphasis on the face-to-face encounter with survivors and their stories. Going further, Shenker points out that the Foundation's original moving-image logo "was a celluloid filmstrip with flash photographs of Holocaust survivors and victims placed within frames", further "underscoring the archive's debt to cinema" (2015, p.113).

Advancing beyond the demands made of the cinematic spectator, however, the VHA invites the user to take complete control of the experience through their active participation. Most importantly, the search function invites physical and cognitive interaction with the archive, (taking Laub's call for the listener to be an "enabler" of testimony to more literal extremes). Frosh's work (2018; 2019) on remediated witnessing and the interface is particularly illuminating as it takes the VHA as its principal study. Sketching "a phenomenology of the interface", Frosh outlines "its characteristics as an embodied, sensory experience in order to review its implications for moral response among users, particularly in relation to survivor testimony" (2019, p.145). While noting the important differences between operating systems and their distinct "interface experience[s]", Frosh's study moves forward with the computer GUI (graphical user interface) for accessing the VHA online (2019, p.150) (*fig* 2).

Figure 2 – Viewing screen for the USC Shoah Foundation Visual History Archive online (Holocaust survivor, Ursula Elgart's testimony)

Making constant demands for our attention, Frosh argues that the digital interface creates the "default condition of bodily restlessness" (2018, p.351). In other words, when we are facing our computer screens, we are always already poised, waiting to click, ready to respond to incoming stimuli such as emails and news notifications. Indeed, as I argue towards the end of this chapter, this sense of alertness and "sensorimotor responsiveness" becomes heightened during the pandemic as we became reliant on our computer screens to stay connected to the world. While distraction poses a distinct threat to our engagement with survivor testimony online, Frosh argues it may also create new opportunities for moral response. Crucially, he suggests "these conditions for dispersing attention are not merely cognitive" but are "produced through the aesthetics and kinaesthetic of the GUI". He continues, partial attention "is a fundamentally embodied state" that is physically performed (2018, p.360). Calling this "the ethics of kinesthetics", Frosh argues through his own experience, that he attends to the survivor interviews through a "regimen of eye-

hand-screen relations" which have the potential to translate into a moral response and attitude of witness. As Pinchevski notes, "Frosh depicts a shift in the media of testimony whereby what points or stabs (as in Roland Barthes's photographic definition of the punctum) is not the intensified, indexical moments of testimony as captured on tape, or the conventional markers of traumatic memory, but the literal index – the user's finger – operating various mouse activities: pointing, clicking, and dragging objects on the computer screen" (2019, p.107).

Actively searching for survivor testimony through the VHA online portal, then, satisfies Frosh's three moral principles for Holocaust memory practice: "attending, engaging and learning-watchfulness" (2016, pp.353-354).The first mode of response has been put forward by survivors such as Primo Levi, who, as we have seen above, demands that we are attentive to testimony for those who cannot bear witness. The second priority, "engagement", reflects the moral demand to participate in the testimonial process, to listen empathetically, to open oneself up as an "addressable Thou". The final principle, "learning-watchfulness" is centred on our responsibility for the future of Holocaust memory. As Frosh writes, "The mantra of this obligation is 'never again'; its performance is perpetual vigilance" (2018, p.354).

However, as Pinchevski cautions, "Producing computer-generated data from digitized testimonies poses a moral problem insofar as this might imply converting human suffering into quantifiable data" (2019, p.106). Another response to this dilemma has come from Todd Presner, who argues that algorithmic processing may in fact enable a shift from close reading to a distinct mode of "distant listening". In order to avoid "canonicity", Presner suggests an "ethics of the algorithm" which enables us to approach audio-visual testimonies as large-scale data, bringing

"overarching structures and patterns" into view (2016, pp.197-199). As we will see in chapter three, however, this poses distinct problems to the "markers" of trauma, to the "audiovisual unconscious" which has shaped our engagement with survivor testimony for more than four decades. Indeed, we have relied on survivors to communicate (through their failure of language) the very limits of understanding the Holocaust.

1.5.2 IWitness

In 2009, the USC developed *IWitness*, an online educational platform which holds 1,500 VHA videotestimonies and offers school children the opportunity to watch, search, share, and even remix segments of survivor accounts using an in-built online video editor. Implemented within classrooms across America, the tool has been widely praised for its user-driven editing. Indeed, as Wulf Kansteiner writes, "the project is truly remarkable because it hands over editorial power over cultural memory", enabling students to use the Holocaust as an entry point into discussion about present-day concerns (2017, p.121). In other words, allowing the Holocaust to become as Rothberg endorses "multidirectional memory" (2009). Crucially, Kansteiner acknowledges that students' *IWitness* films (entered yearly in the *IWitness* video competition) "represent an interesting hybrid: broadcast memories produced by members of a post-broadcast generation". Provocatively, he asserts, "The results indicate that, in an appropriate communicative-didactive setting, handing over interpretative power to transhuman memory amateurs should give less cause for ethical concern than, for example, encouraging designated memory experts to craft Holocaust curricula for young children" (2017, p.121).

In any case, what is important to acknowledge is that the USC, through these online initiatives, has been promoting participatory and interactive *experiences* of

Holocaust survivor testimony for decades. In this way, I have chosen to focus on the USC Shoah Foundation for the first half of this thesis, as it is positioned as a bridge between "the Era of the Witness" and "the Era of the User" and continues to play a leading role in the digital turn in Holocaust memory. Arguing the case most forcefully, Shandler asserts "since its inception, the VHA has grappled with the possibilities and challenges that new media offer for memory practices". He continues, "In doing so, the archive stands as a landmark in the annals of Holocaust remembrance, which literature scholar Alan Rosen notes, has from the start "been bound up…with technological advance and obsolescence"" (Shandler, 2017, p.35).

1.6 The Era of The User

Digital Holocaust memory – and by extension, digital Holocaust witnessing – is both new and not new. It is novel form of engaging with the past which has important continuities with both media cultures as well as traditional modes of Holocaust remembrance, memorialisation and commemoration – which, as we have seen, have always been intricately entangled with audio-visual media technologies. Thus, there is value in thinking about the word 'digital' as an add-on, an attachment which suggests an expansion of what we already understand Holocaust memory practice to involve, namely, listening to survivor testimony, attending memorial ceremonies, and journeying to former sites of Nazi persecution, museums, art exhibitions and installations. Memory practice could also more simply involve engaging with artworks, novels, films or other cultural texts which speak to the events and/or themes of the Holocaust more generally. Thus, memory practice is a

broad umbrella term which encapsulates a wide range of activities that have some kind of mnemonic value.

As the USC case studies above indicate, this value, especially within a digital context, is increasingly being realised through action and the priority accorded to experience. In other words, how do projects frame the visitor/user and what are they capable of doing (or not doing) within that experience? As Nash writes, "taken broadly, a focus on *doing* provides a useful starting point for engaging with digital media as inviting forms of action, play, navigation, dialogue, and their significance as a means by which to engage reality" (2022, p.4) (italics in the original), and in the case of the Holocaust, to engage the past.

1.6.1 Interactive Holocaust memory

If the mnemonic value of digital Holocaust memory projects is in what they enable us to *do*, then we need to critically deconstruct notions of interaction which have become ubiquitous to discourses about digital media. Boasting an "interactive" and "immersive" experience, the promotional materials for these projects perpetuate a rhetoric which risks becoming so vague it becomes critically meaningless. Nash's concept of the "dimensions of interactivity" (2014; 2022), offers explication here, as she puts forward a framework for thinking about interactivity as multiple strands that can be brought together through an understanding of performance. This model provides a useful starting point for my investigation as I want to consider how such performances may also evolve into a mode of digital witnessing within Holocaust memory projects.

Promotional materials for *The Journey* tablet/mobile application (2020) produced by the National Holocaust Centre and Museum (UK), for example, boasts "interactive" potentials for school children to navigate through a "story game" that follows the trajectory of a young boy called Leo as he is forced to flee Nazi Germany on the Kindertransport. Moving through ten animated episodes, the student is invited to click on objects, respond to question prompts, and make decisions about the characters' responses to events through what is known as "the forking path" narrative structure. Here, interaction is being suggested on two levels. On the one hand, at a computational level, it refers to the system's ability to respond to the physical actions and inputs being made by the student through the digital interface. Explored in the chapters ahead, this is what Manovich (2001) calls "the interactive real time screen" through which there is an established relation between physical actions and the represented objects (recall Frosh's study above). Nash conceives this relation as a "'two-way' flow of information" and points to Sandra Gaudenzi's (2013) idea of "living documentary" as a way to conceptualise interactivity as a "socio-technical assemblage". Put simply, "a process of involvement that links user, system and content" (Nash, 2022, p.7). This idea of an assemblage is also at work in digital Holocaust memory projects more broadly as Walden puts forward the notion of "entanglements" between "human users, representations, and computational interfaces, logics and machines" (2021a, p.287), a concept I will return to.

The second paradigm, on the other hand, is an understanding of interactivity as "experiential" from the perspective of the user. This shifts the focus to the students' kinaesthetic sensibilities and their physical actions with the technology (clicking, typing, touching etc.), which allows for understanding and/or knowledge to emerge through a personal "embodied experience" (Nash, 2022, p.7). Nash, however, cautions against privileging physicality as way to distinguish "interaction from interpretation". She makes plain that "sharp distinctions between mind and body, interpretation and action" can impoverish an investigation which seeks to understand digital interactivity and "the opportunities it affords for forms of embodied and affective engagement" (Nash, 2022, p.8). This way of thinking has gained increasing momentum in scholarship over the last decade. Alison Landsberg, for example, notes, "the experiential is first and foremost an affective mode: when engaged in this way, one's body is touched, moved, provoked". This means we need to think critically about "this mode of engagement and the acquisition of knowledge about the past, and the relationship between affect and cognition" (2015, p.6). Similarly, Ruth Leys, also asks us to avoid a "materialist theory" approach, as it creates a "false dichotomy between mind and matter" (2011, p.457) which dictates how we think about notions of affect and embodiment.

As will become clear in the case studies, this work further problematizes the active/passive dichotomy by demonstrating that sometimes *in*action and a decline in participation can in fact be rendered powerful with regards to digital witnessing. In other words, these projects can encourage interpretation through the experience (and recognition of) reduced digital

interactivity – the closing down of what Nash calls, the "possibility space" (Nash, 2022). While I will explain my approach in more detail below, it is enough to note here that this study launches from a phenomenological perspective which fundamentally understands embodiment as a dynamic interplay between the material and the virtual, the cognitive and the physical, the mind, the body and machine. Phenomenologists, Merleau-Ponty, Dall'Alba and Barnacle emphasise the point; this is "not knowing achieved form the 'outside' as it were, but from being both inside and outside: by being constituted – like everything else – by that which in Merleau-Ponty's words, 'I do not form, [but] which forms me'" (2005, p.725).

Furthermore, it is worth pausing to note the tendency for institutions to foreground the "interactive" qualities of their projects as a way to differentiate themselves from the experience of engaging with audio-visual texts. This is widely accepted at face value by the public as VR experiences and AR applications certainly appear to make demands on us physically which goes far beyond the actions required for viewing a film. However, as we have seen in the first half of this chapter, "In much the same way as the testimony" itself, "film has the power to address, and hauntingly demands a hearing" (Felman, 1991, p.81). Indeed, it is well established that audio-visual testimony has positioned us in various ways, as active witnessing agents, co-authors in the process of testimonial transmission.

In any case, media theorists know better than to relegate film spectators to passive subjects in the face of new media technologies. We only need to remind ourselves of Stuart Hall's 1973 communication model to note how

audience response theory has positioned audiences as active rather than passive subjects for more than 50 years. This research also takes its lead from Landsberg's (2015) more recent study of film, television and digital exhibits; *Engaging the Past: Mass Culture and the Production of Historical Knowledge*. Moving beyond the notion that audio-visual media can be simply affective (encouraging viewers to unquestioningly identify with the past on screen), Landsberg argues that "the affective engagement that draw the viewer in must be coupled with other modes that assert the alien nature of the past and the viewer's fundamental distance form it" (2015, p.10). To be clear, she argues that the visibility of the text's mediation, its construction, form and stylistic choices can encourage a critical self-reflexivity about the past. I will come back to Landsberg's application of affective engagement below.

To grapple with the "dimensions of interactivity", then, Nash proposes the idea of performance as "a negotiation between various agents within the context of a creative process and performance as an opportunity for (self) presentation" (2022, p.9). Noting the tendency to either exaggerate and "fetishize" interactivity or "demonize" the very prospect as a deceptive illusion, Kinder puts forward "performative interactivity" as a productive way to navigate both the freedoms and constraints offered to users within digital experiences (2002, p.7). Informing Nash's approach to "interaction as a form of interpretation" (2022, p.10), Kinder considers digital interactivity as an invitation for a user to act our role, like an actor on screen or a dancer on stage, "contributing to her own idiosyncratic inflections and absorbing the experience into her personal archive of memories" (2002, p.7).

The second element of Nash's model focuses on interactive spaces (in interactive documentaries) which create opportunities for "(self) expression" through an "embodied performance" (2022, p.10). Drawing on Walker's (2013) "somatic evidence", Nash approaches performance as a way to access new knowledge or arrive at an understanding of reality through affect, emotion and the body. This two-part model will frame my analysis as I consider how the first generation of digital Holocaust memory projects encourages a mode of interaction (and at times, discourages it) to enable the user to creatively collaborate in the production of the experience and construction of meaning. To remind the reader, the principal motive of this investigation is to discover how such "performative interactivity" (Kinder, 2002, p.7) may also lead to a mode of digital witnessing, thus, I will now turn my attention to notions of performance within the context of Holocaust memory practice.

1.7 Performative Holocaust memory practice

Thinking about Holocaust memory practice in terms of performativity is not new either. As Walden maintains, "Holocaust memory itself has long been interactive" (2021, p.278). Indeed, Stephen Smith (executive director of the USC Shoah Foundation) reminds us, Holocaust survivor testimony (as a form of the face-to-face encounter) is understood as the "original method of interactive storytelling" (Traum et al., 2015, p.369). Diana Popescu and Tanja Schult's *Performative Holocaust Commemoration in the 21st Century* (2020) is a particularly important contribution to the literature on this topic,

as it traces the performative dimension of Holocaust memory practice through the pledges of "never again" and "never forget".

Pinpointing art movements of the 1960s and 1970s as concrete examples of participatory and performative audience engagement, they draw attention to the "Minimalism, Fluxus, Happening and Performance Art" as inspiration for creators of public art installations and memorials (particularly in Germany). Of special importance is Esther Shalev-Gerz and Jochen Gerz's *Monument against Fascism* in Hamburg (1986) which invited members of the public to sign their names on a 12-meter-tall lead column that was lowered into the ground over a period of seven years until it had completely disappeared (symbolically representing individual responsibility to rise up against future injustices). Marking "the beginnings of a participatory art memorial practice in the context of Holocaust commemoration", this monument "trusted ordinary members of the public to act as responsible social actors, co-creators and owners of public memory" (Popescu and Schult, 2020, pp.137-138). I will return to Esther Shalev-Gerz's artworks in chapter three.

Setting the trend in the 1980s, these "performative monuments" (Widrich, 2014, p.144) lead to a participatory turn in museums in the 1990s (see Black, 2005; Simon 2010) which (re)framed visitors as active and participatory subjects. We can locate this turn within a much wider epistemological shift, as the "the turn to affect" began to enter scholarly discourse in the mid-1990s with some notable works from Massumi (1995; 2002), Clough and Halley (2007), Gill and Prat (2008) and Blackman and Venn (2010). Notably,

Vanessa Agnew (2007) also speaks of “the affective turn” in (German) historical representation and reenactment more specifically (which I will return to in chapter four).

In the context of Holocaust institutions, then, Popescu and Schult (2020) and Wilson (2021) point to the well-known *Identity Card Project* (1993) within the permanent exhibition of the United States Holocaust Memorial Museum (USHMM) as an exemplar of such shifts. Upon admission, visitors are presented with a six-page ID card which aligns them with a particular individual (often drawing attention to overlooked victim groups such as homosexuals and Jehovah’s witnesses) and asks them to identify details within the exhibition which are pertinent to that individual’s narrative. Attracting the attention (and criticism) of scholars, the project has been written about extensively, igniting a conversation about the boundaries and possibilities of visitor engagement, interaction and (over)identification.

In response to new participatory strategies, scholars also began to engage critically with notions of performance. James E. Young inspired the conversation as early as 1990 when he noted the performative mechanics of *Yom Hashoah* (Holocaust Remembrance Day) which manifest as ceremonial gestures, rituals and pauses for silence. Patraka’s (1999) conception of ‘the Holocaust performative’ follows, which understands performance as a remediation of the “goneness” caused by the original event. In more recent literature, Kidron (2015) studies the performance of Jewishness encouraged during educational visits to camps to connect with their family networks and similarly, Mitschke (2016) has observed “site-specific performances at

Auschwitz" enacted by guides and tourists. In the chapter that follows, I will return to this discussion and trace notions of performativity even further back to the traditions within Jewish memorial practice and liturgy.

The participatory and experiential turn is ongoing within the heritage sector today, as museums, memorials and professional memory institutions continue to move away from the traditional offering of informational tours, panels, and audio-visual displays and instead, curate exhibits and frame physical sites in ways that offer the visitor an apparently personal experience (often mobilised through new media technologies). Silke Arnold-de Simine's research pays attention to this shift, arguing "museums take on the role of facilitators in that process by providing experientially oriented encounters" (2013, p.1). Correspondingly, Alison Landsberg notes, "The omnipresence of this experiential mode bespeaks a widespread popular desire to bring things close and, in this context, to give a personal felt connection to the past" (2015, p.6). Not simply one sided, visitors too, are demanding and presupposing a new kind of encounter, which contains a "special emotional dimension" (Raulff in Assman and Brauer, 2011, p.74).

1.8 Digital Holocaust Witnessing

So far, I have sought to trace the digital turn in Holocaust memory through the shift from "the Era of the Witness" to "the Era of the User". Within this shift I have pointed out two fundamental processes: the digitalisation of Holocaust survivor video testimonies and the "experiential" or "affective turn" with the museum and heritage sector more broadly. To be clear, the fundamental characteristic of the "the Era of the User" is the privileging of

user interaction and participation. These online archives, digital projects, and (digital) museum installations invite us to enact and perform in various ways and in doing so ask us to reflect upon our relationship with the Holocaust as a distant past and the place of the (now absent) survivor.

Within this paradigm, I now want to propose an initial understanding of digital Holocaust witnessing which will develop as I progress throughout the case studies. To be clear this is not a new understanding or replacement for theories of digital witnessing (Frosh, 2019), but rather a conceptual aperture that focuses on the particularities of institutionally orchestrated experiences (rather than social media memory). To reiterate, this investigation is principally concerned with the first generation of digital Holocaust memory projects, (co-)produced by institutions which have been at the forefront of Holocaust memory and witnessing practices for over three decades.

Advancing from the understanding of media witnessing proposed at the beginning of this chapter, I want to stress the importance of the media technology itself. At its base, I argue that digital Holocaust witnessing is an intricately entangled process of the content, human (body) and machine. To be clear, our interactions with – and acknowledgment of – the technology itself creates the potential for digital witnessing to be realised. Thus, I suggest that digital Holocaust witnessing is manifested through new media technologies but is not reducible to it. As will become clear below, digital Holocaust memory projects ask us to adopt the attitude of witness by enacting certain roles and occupying both pre-existing and new perspectives. Through different “as-if” orientations and modes of address, I argue that

there is a critical moment of "noticing and doing" (Miles, 2014), in which the constructed nature of the experience is exposed. It is fundamental that this moment is both cognitively and physically registered on the body because it is the moment in which the moral horizon is potentially reconfigured anew. It is the moment between being addressed and acknowledging a call to witness in which moral choice resides.

As Frosh maintains, these projects "implicate us as witnesses-in-potential more than ever in the demand for responsiveness". He continues, "digital media devices operate at new, often minute, scales of bodily action" they require "the fleshy responsiveness of viewer's hands on their digital devices" (2019, p.). While Frosh is primarily concerned with social media witnessing (in which the ability to respond is collapsed within the platform itself, to share a post on Facebook, to click to raise money to support a campaign etc.) it still holds that "not attending to, engaging with or acting on it becomes a moral decision performed" (2019, p.128). To be sure digital Holocaust witnessing is fraught with uncertainty because we must self-reflexively acknowledge the distance between us and the event, the absolute impossibility of knowing, and proceed with the experience in spite of – and even because of it. This moment is rendered into discourse through the entanglement of the human (body) and the computational machine, it is a digital language that emerges through our participation and interaction with the interface.

Landsberg puts forward the idea of "theorizing this transmission of knowledge about the past as an act of translation". She writes that it is,

> premised on the impossibility of verisimilitude and yet is motivated by the *necessity* of meaningful transmission. Put differently, "a translation admits in its very premise that it is *not* the original, that even if vital meaning gets conveyed through it, it does not simply replicate the original but produces something new.
>
> (2015, p.16) (italics in the original).

This is, she acknowledges, "similar to the oscillation between the experience of proximity and the sense of distance that together are conducive to historical thinking and the production of historical consciousness". Indeed, it is productive to think of digital Holocaust witnessing as the *translation* of experience into discourse, a translation made possible through an experiential encounter which must be understood "as a *bodily* translation that has both cognitive and affective dimensions" (Landsberg, 2015, p.16). While we have long thought about witnessing in terms of truth (and media's ability to capture it), the truth of the report, the truth of the photograph etc., this understanding suggests that witnessing can also emerge from partial-truths or fragments of truth through translations. What is important is to acknowledge that this process can be a means by which to engage in the act of memory on a different level.

In many ways this idea is captured in Felman's work on *Shoah*, as she writes of the process of translation as integral to the affective dimension of the film itself. She states,

> through the multiplicity of foreign tongues and the prolonged *delay* by the translation, the splitting of eyewitnessing which the historical event seems to consist of, the incapacity of seeing to translate itself spontaneously and simultaneously into meaning, is recapitulated on the level of the viewers of the film. The film places us in the position of the witness who *sees* and *hears* but *cannot understand* the significance of what is going on.
>
> (1991, p.46) (italics in the original)

She continues, "the palpable foreignness of the film's tongues is emblematic of the radical foreignness of the experience of the Holocaust, not merely on us, but even to its own participants (1991, p.46). Indeed, it is precisely this act of "estrangement" which manifests in the moment between "noticing and doing" which is fundamental to the act of witnessing the Holocaust in the digital age.

1.9 Screen Survivors during the COVID-19 Pandemic

As indicated in the opening of this thesis, the COVID-19 pandemic not only underscores the fragility of the aging survivors, but also accelerated the turn to digital forms of memory practice. While important memorial ceremonies for the 75th anniversary of the liberation of the camps were moved online, "emotional co-presence" became a particularly tall order in this context, during the global lockdowns. In the following section I will consider the implications of the COVID-19 pandemic on Holocaust memory and

introduce one final example, which will bring all of the elements of this chapter together to consider how members of the public were invited to perform digital witnessing from home.

Far from remaining silent during the global lockdowns, survivors across the globe embraced technology as a means to partake in memorial activities and disseminate their stories online. Ebbrecht-Hartmann stresses the point when he states that “digital communication technology served as a prosthesis for commemorating from a distance (2021, p.1103). Indeed, there has been a plethora of online memorial services and educational programmes and thousands of people around the world have been engaging with survivors on screen via programmes such as Zoom, Microsoft Teams and Skype and on social media platforms including Facebook, Twitter, TikTok and Instagram.

Most notably, The Holocaust Educational Trust adapted their *Lessons from Auschwitz* project, to include live survivor testimony online. The National Holocaust Centre and Museum (UK) launched *Special Times, Special Stories* which connected young people with survivors digitally, and The Nancy and David Wolf Holocaust and Humanity Centre (US) also offered weekly survivor webinars to the public via Zoom. Moreover, the *Memories in the Living-Room* project (*Zikaron BaSalon*) transformed into a digital format (for which approx. one million participants registered) (Springer, 2020) and became popular in the U.S, Israel and Germany. Considering this against pre-pandemic activity, however, Ebbrecht-Hartmann is right to point out that while the *Memories in the Living-Room* project was met with huge demand by the public, survivor participants (that are usually signed up to the project)

dropped from 3000 to less than 300 (2021, p.1104). Thus, further underscoring the fragility of the survivors and the potential value of digital memory projects moving forward.

1.9.2 The GUI

While the exponential growth in smartphones and tablets devices over the last decade has shifted cultural and academic attention away from the graphical user interface (GUI), desktop and laptop computers remained an "invisible" but essential part of our daily lives (Frosh, 2018, p.357). Now, however, they return to centre stage as our social, emotional, and professional lifelines for surviving under the conditions of quarantine and social distancing. For instance, The University of Cincinnati carried out internal research on remote working during April 2020 (a particularly important time for Holocaust commemoration) and produced survey results in which 70% of the 843 participants reported that they "always" used their laptop (Gerding, et al., 2021) over other devices such as tablets.

As Holocaust memory projects and memorial ceremonies became predominantly digital and entangled with our remote working and/or E-learning activities, Frosh's study (2018; 2019) on Holocaust witnessing and the GUI regains a new urgency. Indeed, he maintains, "mainstream digital interfaces – have become central to user experience" (2019, p.253) and raise new challenges for the user as they must oscillate between "operative" and "hermeneutic" modes of embodied attention. While the former, is concerned with the potential of the screen, the functionality of icons, markers etc., the latter attends to the content and its potential referential and symbolic meanings (Frosh, 2019, p.150).

Unsurprisingly, then, much of the emerging scholarship on “pandemic media” is also concerned with operative and hermeneutic relations (Densen, 2020, p.317) and indicates that the current climate exacerbates what Frosh describes as the “default condition of bodily restlessness” (2018, p.351). Referring to this novel situation as “pandemic time”, Alexander, for example, identifies a constate state of “alertness” and sense of perpetual “latency” (2020, p.28) as characteristics of living and working *by* and *through* the screen. Moreover, Yvonne Zimmerman makes the point that “working *from* home” is not the same as “working *at* home” during the pandemic, as the latter principally relies upon computer-mediated-communication technologies which demand a heightened degree of “self-monitoring” and “self-reflexivity” (2020, p.102) (italics in the original).

How can our “continuous partial attention” (Frosh, 2018, p.360) be conducive for Holocaust memory practice in a pandemic? As a starting point, I turn to Aylish Wood’s *Digital Encounters* (2007), as she deconstructs the binary opposition between attention and distraction and suggests that a person can enact both simultaneously. Crucially, she discovers the digital interface fosters a form of “distributed attention” across “competing elements” creating choices which “engenders agency”. She claims, “agency emerges as viewers, in addition to their acts of interpretation, orient their perceptual apparatus in order to decide which competing element they attend to and which they choose to set aside” (2007, p.5). Crucially, Frosh reminds us that “these conditions for dispersing attention are not merely cognitive” but are “produced through the aesthetics and kinaesthetic of the GUI”. He continues, partial attention “is a fundamentally embodied state” that is physically performed (2018, p.360). This performance of dispersed attention is

necessary in meeting the three criteria for witnessing outlined by Frosh above: "attending, engaging and learning-watchfulness" (2018, p.354).

1.10 *Yom HaShoah* 2020

Aptly titled *Remember Together – We Are One*, the *Yom HaShoah* 2020 UK ceremony also moved online and was made accessible via a digital live stream. Despite the physical distance, the traditional ceremonial events were still carried out and included addresses by survivors, candle lighting, the performance of the Yiddish Partisan Song "Zog nit Keyn mol', the singing of both the *Hatikvah* ('*The Hope*') Israel's national anthem and the British national anthem ('*God Save the Queen*') as well as a two-minute silence. Notably, the reading of the Kaddish (the mourner's prayer) still went ahead, despite the general rule that 10 Jewish men must be present. Speaking to this decision, Walden highlights that there was a "break with a material/physical tradition" and faith placed in the digital, because the significance of the Kaddish for Holocaust memory outweighs the rules governing the practice (2020, [online]). Admittedly, Young could not have possibly anticipated this when he exclaimed that the "the life of memory and its commemorative day depend on their capacity to adapt to new times, on the evolution of the meanings in new historical contexts", but nonetheless, the sentiment feels pertinent here (Young, 1990, p.72). Using this as one final introductory case study, then, I wish to set the groundwork for a central claim of the thesis. That is, despite the awareness of the digital interface – and even because of it – participants at home could still take part in a form of "collective distant witnessing" (Martini, 2018).

While Young asserts that in the context of (in-person) *Yom HaShoah* events, "the very act of commemoration provides a common experience for a population

otherwise divided by innumerably disparate lives" (1990, p.71), I suggest that the pandemic marks a new kind of "common experience" which has implications on the way the (UK) public engaged with the digital ceremony. As Baronian argues, our current online interactions on screen, "concertizes the time we are caught in, in its material and social sense", screaming "look at me, look at others, look at us, and look at the world we live in" (2020, p.217).

As more and more scholars attempt to define "pandemic time", they call for an alternative epistemology of time that is characterised by latency and liminality. As Chan puts it, while "our digital lifeworlds proliferated exponentially", they produced an "uncanny" sensation of being "out-of-sync" with a "world stood still" (2020, p.132). Indeed, the collapsing of professional timetables and time zones online, creates a tempo of time that is at once asynchronous and contemporaneous (Malamed and Keidl, 2020, p.16). Notwithstanding the sharp distinctions (made even more visible) in individual socio-economic circumstances, there was at least to some extent, a sense of "common experience" imposed by the legal requirements to stay at home. Put differently, the "special time" of rituals (Imber-Black and Roberts, 1998) or "memorial moment" (Yong, 1990) that exists outside of the linear flow "regular time", was heightened during the pandemic enhancing the possibilities for an immersive experience through a virtually and digitally extended self.

By exploring the two-minute silence in relation to Rose Brown's work within *Performance, Embodiment and Cultural Memory* (2009), we can recognise an important invitation to enact digital witnessing. Once again finding roots with older modes of memory practice, Brown outlines that observing a moment's silence through "the media, in cinema seats or gathered around the radio at home" goes as

far back as the memorial Armistice Day Silence in 1919, which became “an annual moment of shared, and mediatised human experience” (2009, p.206). While Brown’s work discusses a more traditional “memorial scenography” in which the “public’s postures of silence are performed according to generic convention” (2009, p.208) (standing still, heads bowed etc.), we can consider her findings against the individual within their home setting.

Of course, speaking of “silence” in this context really means lack of speech or distraction from everyday concerns. For the user, then, performing silence at the screen becomes a fully embodied investment, not only because abrupt moments of silence can cause “social anxiety” (Brown, 2009, p.214) (arguably heightened in this context), but also because “continuous partial attention is fundamentally an embodied state” (Frosh, 2018, p.360). To be sure, this momentary pause is fraught with tension as the user is performing silence while remaining conscious of navigating the technology through which the ceremony is being screened. Reinforcing this point, Shane Denson writes, phenomenologically, “this means constantly oscillating between what philosopher of technology Don Ihde calls “embodiment relations” in which we look *through* the screen as if though a window, and “hermeneutic relations”, in which we re-focus our perception to look *at* the screen” (2020, p.318). As Frosh has made clear, attention is not merely “a mental attribute but is connected to action; it is physically performed” (2018, p.360).

Another particularly poignant part of the ceremony saw six survivors light specially crafted candles (part of the *Yellow Candle Project*), each marked with the name of an individual victim, their birthplace, and age. Following the survivors, official contributors were invited to light their candles as multiple rectangle boxes began to

fill the screen (*fig 3*). Writing about the sudden prominence of the split screen during the pandemic, Hagener reminds us, this technique has typically been employed in filmmaking "to illustrate mediality - the transmission of signals over time and space". He elaborates on the value of this by explaining, the split screen, "shows two (or more) spaces that are visibly distinct yet presented in direct proximity within the image. It therefore mirrors the paradoxical configuration so typical of media: (spatial and temporal) distance is overcome through technological means, resulting in visual and/or aural closeness" (2020, p.2).

Figure 3 – Yom Hashoah online ceremony (UK, 2020), candle lighting activity

Hugely successful, then, thousands of people at home were also invited to light their candles and share their activity on social media, as a violinist played the well-known score from *Schindler's List*. Subsequently, over 25,000 posts were uploaded to Twitter using #yellowcandles. As Walden writes, the "synchronous and embodied participation" despite the "geographical distance reminds us of Benedict Anderson's writing on the "imagined community", yet this community is also simultaneously

represented back to the participants here through the multiple screens on Zoom" (2020, [online]). Thus, the screen, as an additional layer of mediation serves to enhance individual engagement, enabling the feeling of "emotional co-presence" even at a temporal remove (Wake, 2013).

2. Virtually Part of The Family: *The Last Goodbye*

The Family is an image we seek so desperately (Miller, 1996, p.61)

This chapter explores *The Last Goodbye* (2017), a 17-minute VR experience, co-produced by the USC Shoah Foundation and directed by Ari Palitz and Gabo Arora. Combining 360-degree video and photorealistic interactive environments from Majdanek Concentration Camp, this digital mode of storytelling attempts to preserve the powerful immediacy of survivor testimony by following Pinchas Gutter, as he returns to the camp. Let us note from the outset, that it is not about simulating the events of the Holocaust, but rather, it is about simulating an embodied encounter with a survivor who takes the user on a private guided tour of the contemporary memorial site.

At the time of writing, the experience has been accessible through a handful of international film festivals and American Holocaust museums only. Thus, this research is based on my own experience of engaging with *The Last Goodbye* installation at the Illinois Holocaust Museum and Education Center in Skokie during October 2018. Through an in-depth study of this project (which is receiving significantly less scholarly attention than interactive testimony installations), this chapter considers VR as the witnessing apparatus through which we engage with survivor testimony. Moreover, it considers how the specificities of the technology

itself shape the experience of the encounter in order to create a relationality with Pinchas and to encourage the attitude of witness.

A phenomenological description of my experience of *The Last Goodbye* illustrates how it enfolds me into the position as part of the survivor's family, as Pinchas enacts the conventions of the survivor return visitation to a concentration camp. Looking to Cole (2013), Jilovsky (2015) and Kidron's (2015) research on return pilgrimages to draw such parallels, this work places *The Last Goodbye* within a rich tradition of survivor return narratives which enable "a form of witnessing by non-survivors" (Jilovsky, 2011).

As this chapter will seek to demonstrate return pilgrimages are interconnected with professional memory institutions and organisations more broadly. Annual *March of the Living* programmes exemplify such memory practice as thousands of students (the majority of whom are Jewish) accompany survivors back to sites of Nazi persecution which encourages their "response-ability" (Tait, 2011) for memory in the future. It is in this context that many scholars have written about the status of those who listen, "non survivors" transformed into "secondary witnesses" (Felman and Laub, 1992; Jilovsky, 2015), "witnesses of the witnesses" (Laub and Felman, 1992; Felman, 2002), "witnesses by adoption" (Hartman, 1996), or "witnesses through the imagination" (Kremer, 1989).

Moreover, the ensuing chapter explores how the structure of the VR experience also invites the user to traverse private and public domains, in order to participate in collective Jewish memory practices. As Kidron asserts, "scholarship has yet to sufficiently explore how the familial configuration permits intersubjective empathic

forms of identification with the performed testimony, thereby facilitating not only the transmission of knowledge but also evoking a vicarious sense of emotional and embodied belonging" (2015, p.52). Through this investigation, it will become clear that the user is both physically and imaginatively invited to occupy this new perspective – the attitude of the familial witness, through a virtually extended self.

2.1 *The Last Goodbye*

While planning to produce a VR project for the USC, executive director, Stephen Smith learned that Pinchas Gutter was intending to make his final visit back to Poland in July 2016 which led to the creation of the 360-degree location-based experience, *The Last Goodbye*. Far from the first time Pinchas' testimony had been recorded, the VHA holds two videotestimonies in its collection, filmed in 1993 and 1995. Beyond this, Stephen Smith produced a documentary about Pinchas' experiences in 2002, titled *The Void: In Search of Lost History*, which was followed by another biographical documentary entitled *Politische Pole-Jude,* created by the Hebrew University in 2014. Shortly thereafter, the USC invited Pinchas to be the first survivor to pilot the *New Dimensions in Testimony* project (2015), which preserves his account as a form of interactive biography (explored in the next chapter). A year later, Smith recorded Pinchas' testimony once again, this time for the last time, as his said his final goodbye to Majdanek.

While the documentary produced by the Hebrew University traces Pinchas' entire journey from Łódź to Warsaw, to Majdanek, and beyond to Skarzysko-Kamienna, Czestochowa, and finally, from Buchenwald to Colditz, the VR experience focuses exclusively on his experiences within Majdnaek and predominantly on his memories of being separated from his parents and twin-sister Sabina (whose blonde braid

forms the cover-art for the experience and subsequent memoir (2018)). Mirroring the earlier USC documentary, *The Last Goodbye* films Pinchas in close up on the back seat of the car as he is about to make his return visit. In total, he is filmed in eleven locations, including eight specially selected areas of the camp, or as Cole terms them "micro-sites" (2013), including the bathhouse, the living barracks, (outside of) the gas chamber and the crematorium, and the Mausoleum (a post-war construct containing the ashes from the site).

Using photogrammetry, the crew captured thousands of individual high-resolution photographs on location and then digitally stitched the photographs together to make it possible to enter into a room-scale virtual reconstruction of the space. Selecting which locations within the camp compound he wanted to give his testimony, Pinchas was filmed "against a green screen using a pair of 4k stereoscopic cameras", which as Hays, Jungblut and Smith explain, enabled them to capture his testimony in 3D (*fig 4*). They clarify, this 3D video was then placed "as a separate digital asset at the same spot at which he stood inside the reconstructed photogrammetry space", so that a user can walk around the space whilst hearing his recorded videotestimony (2021, p.36). Whilst it would have possible to record Pinchas off-site, the USC agreed that making the return visit would be the only way to provide "an authentic narrative" (Hays, et al., 2021, p.38), by which they mean a raw performance of testimony that could only be triggered by the intense emotive experience of returning to the site 70 years later.

Figure 4 – Holocaust survivor, Pinchas Gutter being filmed on location at Majdanek concentration camp against a green screen

Recording survivor testimony on location is not a new phenomenon. Indeed, we can recall the discussion in the preceding chapter on Lanzmann's methodology for filming *Shoah* (1985) on location, in which he captured, according to Felman, "a historically performative and retroactive *return of witnessing* to the witnessless historical primal scene" (1991, p.61) (italics in the original). Furthermore, the *March of the Living* organisations, mentioned above, have "filmed survivors giving testimony about their experiences at location across Poland and has amassed more than 375 hours of testimony of footage between 1988 and 2019 that contains conversations between Holocaust survivors and the young people for whom they acted as guides to the places they have personally experienced" (Hays et al., 2021, p.37).

Below, I will also introduce Morley's 1979 documentary *Kitty: Return to Auschwitz* which is one of the earliest and most iconic examples of recording survivors on location, as Morley captures Kitty Hart-Moxon walking the entire topography of the

former camp with her son, David. While I will go into more detail about the framework of familial return in later sections, it is important to note that not all Holocaust survivors engage in such practices and even those who do, sometimes do so reluctantly. As Cole's study (2013) highlights some survivors are convinced by their children who initiate the visit and others have a general distrust for commercial guides at former concentration camps. In any case, these journeys are incredibly complex, often fraught with contradictions and heightened emotions that are bound up in a sense of moral and ethical duty.

While the vast majority of the VHA interviews were primarily filmed in the survivors' domestic home setting, Hays, Jungblut and Smith highlight that the search term "location video footage" will reveal a small subset of 167 interviews (from five genocides, ten different experience groups and in 23 languages), which include interviews with some survivors who had travelled back to sites for other purposes and were asked to recall their experiences on location in addition to their sit-down interviews. For instance, they highlight Renée Firestone who was interviewed in her Los Angeles home in 1994 and then subsequently interviewed on site at Auschwitz-Birkenau, the day before she attended the commemoration events being held for the 50th Anniversary of Liberation in January 1995 (Hays et al., 2021, pp.33-34). Paying increasing attention to ways in which physical locations may function as an organising framework for testimony, then, the USC locate this version of Pinchas' account at "the intersection between place, memory, narrative and imagination" (Hays et al., 2021, p.36).

The renewed interest in landscape-based videotestimony, or as Szczepan conceives it, "the spatial realm of testimony" (2017, p.118) can be associated more broadly

with what has been termed “the spatial turn” in Holocaust studies (Cole, 2014; Fogu, 2016; Pollin-Galay; 2018; Aleksiun and Kubátová, 2021). That is, scholars are “thinking spatially” about the Holocaust, (Cole and Knowles, 2021), paying critical attention to its geographic moorings and redefining the categories of “place”, “space” and “void”. To be sure, Smith has stressed the importance of capturing Pinchas physically moving around the spaces within Majdanek as he gives his testimony, arguing that it enabled a heightened sense of fidelity. Indeed, he reports that the entire team “agonized over how to accurately capture the sinister essence of the camp, mindful that it has been turned into a museum” (Boston, 2018, [online]). Designed so that VR users may feel a sense of embodiment and mediated copresence with Pinchas, it is hoped, that the experience will compel them to recognise their responsibility for continuing the chain of memory at this critical juncture in history.

2.3 Virtuality

The idea of the embodied witness might first appear at odds with *The Last Goodbye*, as the digital environment is at a spatial-temporal remove. How can VR create a sense of live co-presence with a (digital) survivor? Nash proposes that the difference fundamentally lies in the “shift from representation to simulation” (2018, p.123), whereby the boundaries between the real and mediated world blur. Here, the user is encouraged to orientate themselves within the simulated space while remaining conscious of their location within the museum, where the VR experience can be accessed. While the term ‘embodiment’ has become ubiquitous within scholarly discourse, I remind the reader that my understanding here, is aligned with Jason Farman’s theorisation that embodiment in the digital age, means “the body is produced through the *interplay between the virtual and the material*” (2015, p.105) (italics in original).

Siding with Walden's proposition that the virtual should be thought of as a methodology, "a particular form of memory practice – rather than a medium" (2019, p.1), I caution against using the word virtual in relation to its technological definition, and instead look to foreground "the virtual" component of embodiment as something cognitively and physically performed. As Walden states, there is a "technological determinism" (2019, p.4) inherent within the belief that the digital has uncovered a layer of reality previously closed off from us, and thus, we should be careful not to overstate the capabilities of the technology itself. To do so would be to overlook the individual's response and performance as witness. As Walden summarises, virtual Holocaust memory projects invite participation through "physical and mental movements, and thus encourage embodied contemplation not only about the past of the Holocaust, but also about the relationship between different temporal planes – about doing memory itself" (2019, p.12).

Moreover, my understanding of virtuality and witnessing within digital Holocaust memory projects, looks further back than *Yom HaShoah* (recall the previous chapter) to the religious resonance of witnessing and the performative traditions rooted within Jewish history and liturgy, most specifically in the Passover *Haggadah*. This text (*Haggadah* literally means 'saying'), commands that every Jew is obligated to see himself as though he has gone forth in exodus from Egypt and during the meal ceremony held on the first (or second) night of the festival of Passover each individual will be asked to witness and experience this past event virtually. As theologian Arthur Cohen explains, "this notion extends beyond metaphor [to suggest] that God contemplated Jews virtual presence at Mount Sinai centuries beforehand". He continues, "no less is it the case that the death camps account my

presence really, even if not literally: hence my obligation to hear the witnesses as though I were a witness" (1993, p.23).

Frosh proposes the "witnessing text" in relation to the Haggadah and explains that the ability to imagine a world "does not ask participants to suspend or 'bracket' their sense of spatial and temporal distance from the depicted world". Rather, he continues, "it enjoins them to split themselves in two" (2007, p.273). Advancing from Frosh's and Pinchevski's proposal that we can witness *through* media texts, I propose that *The Last Goodbye* is a "witnessing text" that has a performative dimension which asks the user to imaginatively feel "as-if" (Frosh, 2007) they are proximate to a survivor in a digital Holocaust landscape. In responding to this call, the user adopts the attitude of witness to foster a sense of relationality. The text encourages this by offering a privileged viewing position, that of the familial gaze inherent in secondary witnessing. As an exception in his writing, Gary Weissman notes, the second generation have made it clear to "non-witnesses" (…) "what is to be gained by identifying oneself with the children of survivors: namely a closeness to the Holocaust exceeded only by those who were there and survived" (2004, p.15).

Fundamentally, there is an inherent tension between digital (visual) culture and Judaism's emphasis on the word and aversion to the image. A similar concern is addressed in Walden's work which opposes "realist simulations of the past" in the creative process of "reactualization" (2019, p.12). I propose to tease apart this tension in the following sections by highlighting how *The Last Goodbye* also avoids a "realist simulation" of the Holocaust and places emphasis on the power of the word (oral testimony) to enable the user to enact witnessing in imaginative and embodied ways.

2.4 Performing the Family

The Last Goodbye foregrounds the role of secondary witnessing through its positionality of the user within the simulated environment and through the mechanics of the text itself. The following section will consider the narrative format of the experience in relation to what Jilovsky (2015) terms "Holocaust memoirs of return" before going on to perform a thick description of the VR experience.

Jilovsky's research refers to the global trend that began soon after the War, whereby survivors revisited former sites of Nazi persecution. Often, survivors' children accompany their parents on this journey. Considered as a familial rite of passage, these trips have been embedded within various subfields of tourism including "heritage tourism" (Basu, 2004) and "legacy or genealogy tourism" (Santos and Yan, 2009). Jilovsky notes that when accompanied by their parents, the second generation look to the physical site to act as a "spatial incarnation" that cements their relationship to their families' past (Jilovsky, 2015, p.57). Kugelmass echoes this sentiment stating that return visits are pilgrimages which evoke "the Holocaust dramaturgically, that is, by going to the site of the event and reconstituting the reality of the time and place" (1992, p.411).

However, many survivors do not wish to return at all, but are convinced by their children who initiate the visit. As Cole's study (2013) highlights, some survivors often have a general distrust for the commercial guide and reluctantly take on the role themselves. As was the case with Israel Arbiter who told his son,

> When you go by yourself…they show you, 'this is a building' or 'this is a wall'. It won't mean much. When I'll go with you I'll be able to explain to you where and what and whatever it means.
>
> (Cole, 2013, p.111)

Implicit within Arbiter's comments, is the assumption that only the survivor can imbue the landscape with meaning for those who did not live through it. Sure enough, Morris Pfeffer states, it is only by "listening to the authoritative voice of the survivor", that one can "truly see" a place like Auschwitz (Cole, 2013, p.116). Turning back to Peters's (2001) work on witnessing, we can understand that it is the liveness and immediacy of the testimonial performance, and the spatial proximity to the survivor stood within the campgrounds that creates a moral responsiveness. It is the essence of the first-person encounter which urges us to act, to which the only appropriate response is to stand open as an "addressable thou". This invitation to physically act out a role (recall Kinder, 2002), then, can be seen as an attempt to make the encounter profoundly more meaningful than visiting an empty landscape.

2.4.1 *Kitty: Return to Auschwitz*

While a comprehensive study of survivor return narratives is outside the scope of this chapter, I point the reader to the well-known story of Kitty Hart-Moxon as an illustrative example. As mentioned above, the award-winning documentary film, *Kitty: Return to Auschwitz* was produced by Yorkshire Television in 1979 and was one of the first films to record a survivor's journey back to a former concentration camp. The film was met with national and international acclaim (with a UK audience of almost 13 million viewers), and was subsequently broadcast in Canada,

Germany, Japan and the United States among other countries, receiving a whole host of awards (Shandler, 2017, p.74). This prompted a series of other testimonial resources including a second written memoir, *Return to Auschwitz* in 1981, and four more television documentaries, including the controversial *Another Journey by Train* (Channel 4, 1993) (which includes Kitty confronting a group of Holocaust deniers in Auschwitz-Birkenau), *Death March: A Survivor's Story* (BBC2, 2002), *Story of a Lifetime: Kitty Hart-Moxon* (BBC, 2013) and finally, *One Day in Auschwitz: Kitty Hart-Moxon's Story of Survival* (2015) co-produced by the USC Shoah Foundation and Discovery Communications.

While there is not adequate space to carry out an in-depth textual analysis of Kitty's filmography (see Wollaston, 2020), I wish to devote attention to the first and last documentaries of return, which both document Kitty sharing her testimony in Auschwitz-Birkenau, first accompanied by her biological son David and then by two female students who were the same age as Kitty when she was imprisoned. Hardly selected at random, the students were 17-year-old Natalia Smith (Stephen Smith's daughter who had known Kitty from birth) and 15-year-old Lydia Hollingsworth from Harpenden (where Kitty now lives). An analysis of these two documentaries proves there are significant similarities and differences to the narrative structure. On the one hand, as Wollaston stresses, the format of the films themselves are very different (as the latter also makes use of graphic maps, archival footage, external voiceover narration, and filmed interviews) but most striking is the difference in Kitty's composure as she now confidently ushers the students through the space and communicates her experiences as both survivor and expert voice.

By contrast, as Shandler notes, in Morley's documentary the "footage is not sequenced according to the chronology of Hart's time as a prisoner in Auschwitz but appears instead to reflect the flow of her return visit to the campgrounds" (2017, p.73). In the earlier film, Kitty imbues the landscape with meaning primarily with that which is left unsaid. As we have seen audio-visual testimony is characterised by its stammers, repetitions and silences which sometimes include moments of what Lawrence Langer describes as "deep memory" (1991), where a survivor tries to recall the experience as it was then and is overwhelmed by a vivid, all-encompassing memory of the past. Common to familial return visitations, these moments tend to reinforce the child's "temporal distance" (Jilovsky, 2015, p.27) from the event drawing attention to "the goneness" (Patraka, 1999). These moments are most prominent during Kitty's return with her son when she stands crying in Auschwitz-Birkenau and exclaims "now I know you see grass, but I don't see grass. I see mud, just a sea of mud, she continues, "just look at this terrible emptiness" (Hart-Moxon, 1981, p.220).

Notwithstanding the critical differences between the two films, what is important for this study, is the framework for the *experience* of visiting a former concentration camp with a survivor upon their return. This is reinforced as Kitty retraces her footsteps for a final time, sharing the same intimate anecdotes at specially selected areas of the camp, as she did with David three decades earlier. For instance, Kitty tells the students the story of a 'gypsy inmate' who predicted Kitty would survive the camp system, she also recalls memories of roll call and her job within the 'shit commando'. As Wollaston notes, "one day in Auschwitz brings us full circle: it was explicitly conceived as an updating, for the digital/ social media age of the early twenty-first century, of *Kitty – Return to Auschwitz*" (2020, p.361).

Only two years later, the USC Shoah Foundation went on to produce *The Last Goodbye*, and it is clear to see how it is informed by these documentaries of return. Indeed, the voiceover narration in *One Day in Auschwitz* declares that Kitty "travels back one last time to answer the questions of a new generation" echoing the language of *The Last Goodbye*. To be clear, the framework of the VR documentary mirrors that of *One Day in Auschwitz* which, as we have seen, repeats the initial trip made in the 1970s. In *The Last Goodbye,* Pinchas chaperones the VR user around Majdanek, personally selecting a series of "microsites" that are integral to his own experiences, (it is worth noting, that Pinchas, like Kitty, is also an educator who takes part in *The March of the Living* programmes). Fundamentally, then, this association foregrounds the relationship between (digital) survivor and VR user, and places that user in the position of a particular type of concentration camp memorial visitor, that Cole (1994) calls "the Holocaust pilgrim".

2.5 Meeting Pinchas Gutter

Upon donning the headset, I am standing within a hotel room and opposite me is an elderly man dressed in a robe, looking out the window. I accompany him into the bathroom where he shaves in preparation for his return to Majdanek. His voiceover states,

> Even though I have done this trip so many times, I am just afraid of doing it again. I am subject to nightmares that start all over again. So, all my feelings are not to want to do it. I am not young anymore, I am 80 years old, and my greatest fear is that even when I come back

> home I'm going to start suffering from the same nightmares over and over again. I think you have to confront pain to be able to heal it. I come back to Majdanek, to this camp, to convey the truth of what actually happened. Unless you have somebody that can say, 'I was here, I saw this, this was done to me,' I don't think that people will accept it as the gospel truth.

Within minutes of the experience, I am encouraged to feel familiar with Pinchas in this personal (and usually private) space. More than this, his introduction as the "reluctant guide" (Cole, 2013) is clear; he is afraid of returning but does so on my behalf. As director Arora boasts, "when you watch the experience, you feel like he's doing it for you" (2017, [online]). Clearly, the setting and dialogue encourage an intimacy aligned with that of the secondary witness. In thinking about the positionality of the user here, we can also recall the earlier discussion of Scannell's "for-anyone-as-someone-structure" which "implicates a someone someplace to receive it who turns out, in each case, to be 'me' (2000, p.11). To be sure, this structure of address seeks to foster a sense of relationality and in turn, responsibility for others.

Soon after, we are making our way to the camp in the back of a car. Reinforcing the singularity of the experience, Pinchas stares directly at me (for a prolonged period of forty-three seconds) as I sit in uncomfortable proximity to him on the back seat (*fig 5*). This form of direct address (or breaking the fourth wall), is accentuated by eye-tracking in VR, which enables Pinchas to trace my head movements and meet my eye-line. Used as a technique to heighten the sense of "social presence" (Greenwald et al., 2017), I *feel* as though he can see me. To be sure, the digital simulation is

convincing because my actual perspective and my digital perspective appear to occupy the same “null-point” (Popat, 2016, p.364).

Figure 5 – The Last Goodbye, in close proximity with Pinchas in the car

Once inside Majdanek, it becomes immediately apparent, that unlike guided tours at Auschwitz, where tourists nudge one another to catch a glimpse inside cells, we are completely alone in what Weissman describes as the “optimal conditions of stillness and silence” (2019, p.22). In this privileged viewing position, only Pinchas and I share an unobstructed 360-degree view of the vast expanse of the camp (*fig 6*). Pointing out the grass specifically, Smith maintains, “when he stands next to the barbed-wire fence, with a brilliant green field stretching into the distance, we can imagine that last moment of seeing his mother and his sister in what must have been an endless sea of unfamiliar faces” (Bolton, 2018, [online]).

Figure 6 – The Last Goodbye, Pinchas and the VR user are alone in the camp

This echoes Kitty's repetitive mention of the grass above, a kind of "tidy pretence" (Cole, 2013, p.115) covering over the mud which she can still see. It can also be compared to *Shoah*, when the spectator is asked to imagine the ashes flowing down the river. In all of these examples, it is up to the spectator/user to imagine the horrors being described and to decode the landscape before them.

Unfolding as a series of "curated chapters" (Hays et al., 2021, p.41), then, Pinchas' tour conforms to a pattern Cole has observed in his work, aptly titled *Crematoria, Barracks, Gateway* (2013) wherein the survivors' trajectory always includes visiting locations inside the camp that constitute, "their place", "my place" and "Nazi-controlled spaces". In the order that Cole outlines, Pinchas first takes me to the building with the shower heads which represents "*their* place – the death site of family members" (2013, p.104) (italics in the original).

2.5.1 Bathhouse: *their* place

Stood within the former men's bathhouse (or disinfectant barracks), Pinchas recalls being forced to bathe in disinfectant (*fig 7*). He explains that upon leaving the bath he noticed the showerheads in the ceiling which he thought signalled imminent death because, by then, he had heard the rumours about the fake showers spouting gas. In that moment he remembers praying and thus, decides to re-enact the prayer in front of me.

Figure 7 – The Last Goodbye, Pinchas in the bathhouse

As Pinchas fixes his Kippah, he closes his eyes and begins to recite the prayer in Hebrew. Losing composure, Pinchas seems to fall into "deep memory" (Langer, 1991), which to recall Jilovsky, reinforces my "temporal distance" (2015, p.27) from the event itself, but also paradoxically simulates the live immediacy of "witnessing the witnesses" (Felman and Laub, 1992) in this space. Without subtitles, it is assumed that I recognise Pinchas's prayer as a recital of the *Kaddish* (the mourner's prayer), which is considered central to Jewish mourning rituals in a communal

context (Hagman, 2016, p.175). Recall the discussion of the 2020 UK *Yom HaShoah* ceremony, which despite breaking with traditions, decided to include the recital of the *Kaddish* in the online proceedings. Indeed, the Jewish community often recites the *Kaddish* for victims of the Holocaust and it is regularly performed in unison during the *March of the Living* programmes.

Looking ahead at Pinchas trembling, I know I am witnessing a man standing as witness for his family and am somehow in a circle of Jewish witnessing relations. I do nothing but stand and watch attentively, and in this pivotal response, I embody the ancestral position. My performative gestures are in line with Jewish ceremonial modes of remembrance, as there is a collective "paying heed" (Zelizer, 1998, p.10). To be sure, saying *Kaddish* upon return visits with the second and third generations has been hugely significant for the survivors reported in Cole's work. Andre Mark, for example, expressed satisfaction from "saying *Kaddish* wearing a prayer shawl and skullcap in a place where items of religious dress were confiscated from prisoners on arrival". Moreover, Lily Tykocincki Butnick, claimed the *Kaddish* functioned as proof that she had survived and had come back to pay tribute to her family, and Judith Perlaki, in a similar vein, expressed how watching her son saying *Kaddish* served to prove that the "German didn't fully win" (Cole, 2013, pp.107-108). It is interesting to note, that the crew were unaware that Pinchas had his Kippah in his pocket reserved for his recital in this moment, which understood in the context of familial return, has incredibly important bearing on my role as witness.

In many ways, we can compare this moment to Srebinks singing in *Shoah* as a multi-layered performance of mourning practice, testimony and reenactment. Felman's interpretation is most instructive here, as she writes, Srebinks song creates

"an unexpected contemporaneity between its reiterated resonance and the very silence of the place". She continues, the song "as a concrete, material residue of history" invites us to "cross over from the landscape and the white house into an encounter (a collision) with the actuality of history" (1991, p.71). Understood in this way, Pinchas' recital of the *Kaddish* in the bathhouse is an intricately entangled performance, which also moves beyond mourning practice, and acts as a kind of spatio-temporal time-bridge. Fundamentally, however, as Felman makes plain, "this contemporaneity between present and past, between the singing voice and the silent place, remains entirely incomprehensible" (1991, p.69).

2.5.2 The threshold of the gas chamber

After moving further through the bathhouse, Pinchas pauses and gestures with his hands towards another room. Following his instruction to look left, I turn and see a room in deep focus, cast in blackness. The doorframe on the side of the room is the only thing visible as small shards of light are bursting through the circular window and cracks around the outer edge. Pinchas states,

> And now I am standing here and looking at this place with such dread. Because I find it so difficult to imagine the manner in which they died, choked to death. Innocent, wonderful human beings.

Standing between Pinchas and the entrance to the gas chamber, I am conscious of the emotive charge of this space and his reluctance to engage with it as he (briefly) describes his difficulty in imagining the horror of his family's death. Admittedly, I am more focused on Pinchas in this moment than on the room itself as his rejection

of the space becomes more and more apparent, but there is of course, the very real possibility for users to become distracted. Indeed, while Zalewska frames her analysis through Levinas' notion of the face-to-face relation, she concludes by arguing that the technology "obfuscates" this process in a "pronounced way". Echoing Nash's work on the risks of "improper distance" in VR (2016), Zalewska notes that "the emotional and physical sensations" of the user can override their concern for the other in this space (2020, p.51). While this was not necessarily my experience, I recognise that given the strength of the institutional frame (and the framework of the family for which I am arguing), this work is unlikely to achieve the moral potential of the face-to-face encounter in the Levinasian sense.

There is a momentary pause of 10 seconds before transitioning to the next chapter of the film, which provides just enough time to glance once more through the threshold. As the screen fades to black, the room is cast into further shadow, leaving only the external door in view until the last second. While this is to some extent a privileged perspective (as tourists are not generally permitted to access this area of the memorial site), I still feel encouraged to move on from this space rather quickly. In fact, the duration of this scene lasts no more than one minute (markedly shorter than the time we have spent in the other areas of the camp so far).

While Zalewska has described this as "the most controversial moment in the movie" (2017, p.51), it is telling that the literature to date omits discussion of this scene and focuses instead on other chapter and/or elements of the experience (Marrison, 2021; Alexander, 2021; Marino, 2021). Of course, there is, and always has been, huge controversy around representing the "impossible space" (Rothberg, 2000, p.238) of the gas chamber. As Langford argues, the gas chamber door has served as "a literal

threshold of unrepresentability, a physical and textual marker of the point beyond which depiction ceases to be permissible or even possible" (1999, p.32). Despite claims around the gas chamber's unrepresentability, it continues to be (mis)represented within Holocaust cinema (see Langford, 1999; Kerner, 2011;). David Dickson's recent work (2020), for example, focuses exclusively on scenes which feature the gas chamber within *Schindler's List* (Spielberg, 1993), *The Grey Zone* (Nelson, 2001), *Apt Pupil* (Singer, 1998), and *The Boy in Striped Pyjamas* (Herman, 2008), among others. Dickson notes, "Fiction has violated Lanzmann's circle of flame, as the gas chamber door no longer represents the threshold of permissible representation but rather a portal that […] demonstrates, fiction now seeks to pass through – often literally acting out this moment of transition" (2020, p.3).

Indeed, in an interview with Neta Alexander (2018), Stephen Smith remarked, "we all knew that we would have to make a difficult choice, and that we would have to make them with Pinchas himself". He continues, "When he's talking about the gas chamber, he stands away from its entrance and doesn't want to approach it, the solution was to show a room scale of the gas chamber without enabling the viewer to enter the space and walk in and out of it. You can look at it from the outside, not inside". In order to create a room scale of this space, then, the filmmakers "mounted a 360-degree camera on a long pole and pushed it inside above the threshed to film the entire space without walking into it (Zaewska, 2020, p.51). It is worth noting that (as indicated in chapter one), technology continues to function as a surrogate witness, as the camera itself passes through the threshold of the gas chamber in Majdanek.

2.5.3 Barracks: *my* place

Next, Pinchas takes me to the living barracks where I look around and see the empty wooden bunks cast in shadow. Representing "*my* place", he recalls his experiences of hiding, explaining how he had to remain invisible lest attract attention and risk being sent to the gas chambers. Soon after, we are transported to Barracks 52 where the museum houses a display containing over 56,000 former prisoners' shoes. I turn away from him momentarily to take a closer look at the shoes but discover that they are also cast in shadow and hardly discernible as individual objects. Including approx. 6,000 that belonged to the children, Pinchas tells me that he found, in the middle of one of the display cases, a pair that reminded him of his twin-sister's shoes. But, he proclaims,

> they weren't […] they weren't. They were just my fertile imagination that wanted so badly to find something to remind me, something to kind of, I could touch, something I could feel that belonged to her, but I couldn't, and I didn't. And it was quite unrealistic for me to even to try but you always […] human emotions cannot be explained, human emotions are so deeply rooted with what you want, you can't always achieve, and I have never been able to find it, and to this day, I cannot visualise anything, my memory of my sister has completely disappeared from childhood - *we were twins*, we were one body, born together, in my, ah, we were together in my mother's womb, and yet everything that happened to her, right from the age of […] of our little, as babies, until the age of eleven when we arrived here, everything accept the *braid*, that blonde beautiful braid, I can see. So,

> whenever I think of my sister called Sabina, I see a braid, everything else has gone.
>
> [sic]

It feels as though Pinchas is actively resisting the slippage of "deep memory" (Langer, 1991), self-reflexively acknowledging the way trauma can inflict the mind to wishful fantasies. At the same time however, his language becomes involuntarily punctuated with repetitions, "hesitations" and "stammers" (Avisar, 1997, p.51), as he desperately tries to articulate, making gestures with his hands as if to add shape and weight to his words. Once again compelled to "the vicissitudes of listening", I stand attentively as he shares deeply personal anecdotes of his sister. Almost obsessively repeating her name, I am conscious that his voice verges on breaking when he mentions Sabina's braid for the second time (he first mentions this before entering the bathhouse). I have noted elsewhere, the tendency for Holocaust narratives to include such repetition, specifically statements thrice-repeated (especially in relation to fantasy) (Marrison and Morris, 2019, pp.141-142), and here, in the barracks it occurs in reference to Sabina's hair. As Paul Valéry argues, "Repetition responds to incomprehension. It signals to us that the act of language could not be accomplished" (1957, p.1510).

2.5.3 Black Path: Nazi-controlled space

Before continuing with the experience, a black screen appears instructing me to stand for the next "chapter" (despite the fact I was already standing). Pinchas

reappears, waiting for me before beginning his walk on the ‘black path’ to the crematorium (now the Mausoleum), which represents “formerly Nazi-controlled spaces”. Here, survivors perform contemporary acts of “liberation and even revenge” (Cole, 2013, p.104). Pinchas walks alongside the barbed wire fence adjacent to the pathway (now titled The Road of Homage) and liberates himself from the role of “reluctant guide” as he will no longer address me. As he physically turns his back, I am forced to follow him, symbolically representing testimonial transmission and my duty to pass on his story (*fig 8*). Indeed, this is the final time Pinchas intends to visit Majdanek and so I am the person to watch him say his last goodbye.

Figure 8 – The Last Goodbye, following Pinchas on his walk to the Mausoleum

As will be explored in chapter four, physically (re)walking in former sites of Nazi persecution has an affective and performative dimension, that in Richard White’s words, can “generate” and “renew” a “mnemonic landscape” (2021, p.3). Referring to this practice as “walking in witness” or “walking with” (2021, pp.10-11), White’s

project underscores its significance. Drawing parallels between these projects, I argue that the VR encourages a form of "walking with" by requesting that I stand before re-joining Pinchas at the barbed-wire fence. In fact, we could go one step further and call this *standing in witness* as I have stood (physically and metaphorically) with Pinchas as he "witness the witnesses" through his return, a performance of "attending, engagement and learning-watchfulness" (Frosh, 2018, p.354).

Curious about the limitations of my surrogate body, I reach out to touch Pinchas, but only discover the absence of my arms. In these instances, the visual representation does not correspond to my expectations or my "body memory" (Bergson, 2007) of seeing my physical limbs before me. While this may seem a disembodying experience, Sita Popat argues the opposite. Calling this sensation "missing in action", she states, that "the greater portion of my spatial-locative experience came from my proprioceptive senses, and those gave me presence in the virtual environment because my body was moving in the world" (2016, p.367). Advancing from notions of "place illusion" and the "plausibility illusion" (Slater, 2009, p.3551), our understanding is that the direct feedback loop between the material and the digital environment is consistent enough to appear "not-not-real" (Popat, 2016, p.372) or "almost really-real" (Grau, 2003, p.7). Indeed, Popat continues, "it is the action involved in reaching out to touch rather than in the achievement of contact that provides the constituting effect" (2016, p.360). Nonetheless, the system explicitly calls attention to itself, as it fails to mirror the complete body image, and displays a luminous green box as a safeguard to warn me that my flailing arms are about to hit the physical boundaries of the room.

2.6 The witnessing text

Of course, the tactile-kinaesthetic body is never really fooled, and we are always simultaneously aware of our body's self-location in the museum. To return to Frosh's (2007) example of the witnessing text, it is the "as-if", the ability to imagine oneself "split in two" – virtually – which motivates a sense of embodiment in the simulated camp landscape. Craig D. Murray's phenomenological approach to embodiment in VR adds further nuance, as he stresses that "the experience of 'inhabiting' that 'body' is not prescribed by the VR developer" but relies upon the external material body. Adapting Maurice Merleau-Ponty's example of the blind person's cane as a "familiar instrument", which extends the hand itself, Murray states that a sensation of "phenomenological osmosis" (incorporating such tools into the body) can occur. In VR the technology itself becomes embodied (2000, p.14), and like the cane (as the point of sensitivity), "the eyes themselves [extend] function like organs of touch" (Marks, 2000, p.162). Correspondingly, Scott Bukatman states, "to be installed into such an apparatus would be to exist on two planes at once: while one's object body would remain in the real world, one's phenomenal body would be projected into the terminal reality" (1993, p.187).

Sita Popat refers to "the blurred body" in VR and states that the absence of her body on screen, encouraged a focus on "body interiority" (2016, pp.365-371), which forces her to concentrate on her internal senses to locate herself in the digital space. In a slightly different context, Margaret Wertheim, discusses her experience of cyberspace, claiming that "my body remains at rest in my chair, but 'I' – or at least some aspect of myself – am teleported into another arena which, while I am there, I am deeply aware has its own logic and geography" (1999, pp.228-229). Indeed, I

argue that part of myself is imaginatively transported, where, for the duration of the experience, the logic is one of an intimate exchange.

In a sense, these disruptions from the interface are crucial in highlighting the precarious nature of witnessing and thus, the importance of the user's performance in fostering an imaginative engagement with the simulated world. Each time the system exposes itself by prohibiting actions, the user has to virtually re-negotiate their entry into the digital camp and once again, take up their "new selves" (Bolter and Grusin, 2000, p.166). While I have argued that this privileged viewing position is modelled upon secondary witnessing and constructed through narrative devices, it is also adopted by witnessing *through* the text and technology itself.

2.6.1 The rules of engagement

If we accept the *Haggadah* as the primary example of a "witnessing text", that contains instructions for how to experience the event and how it "should be taken" (Frosh, 2007, p.272), we can recognise similar instructions through the VR experience's rules of engagement. As Frosh clarifies, the Haggadah, with its "to-do list intended to structure the *Sedar* rituals" ensures that the individual's "envisioned journey into the distant event simultaneously requires that part of them stay in the performative present of the Haggadah recitation, as *enunciator* and *envisioner*" (italics in the original). Frosh continues, "witnessing is not full immersion into the witnessed world. It is an imagined act of experiential construction that nevertheless remains in the here and now of discourse" (2007, p.273). Indeed, as we have seen, the rules (and limitations) of the digital space in *The Last Goodbye* forces the user to foster this same kind of imaginative engagement with the digital world, and they are

also “transported in the abstract, as ‘he’ rather than as ‘I’: one imagines oneself as another” (2007, p.273). To be sure, just as participants “reiterate their location in the present tense of the Passover meal” the user reiterates their position through their physical actions within the museum.

This “performance of imaginative world-making” (Frosh, 2007, p.274) is not only required to occupy the familial gaze, but also for expanding the simulated realm. Returning momentarily to Judaism’s emphasis on the word and aversion to the image, it is particularly illuminating that *The Last Goodbye* actually resists imagery of the Holocaust and relies on Pinchas’ oral testimony (although it contextualises this with visual references of Majdanek’s memorial space). Given the plethora of atrocity images, documents and iconographic photographs available to illustrate Pinchas’ story, it is clearly a deliberate decision to only display the (mostly) empty landscape, with the interiors of buildings often cast in shadow. To emphasise the point, the cattle truck, which appears at the beginning of the narrative (prior to entering Majdanek) is decontextualised against a black backdrop. The user is forced to focus on the word if they are to envisage the details of the bathhouse, or the excessive crowds of people. As Cole notes, survivors often expose the contemporary landscape as “fixed up”, “a tidy pretence” and “sanitized” (Cole, 2013, p.115), they function as a “blank canvas” (Jilovsky, 2015, p.147) leaving the user to listen and virtually imagine for themselves.

2.7 Postmemory and familial witnessing

I have suggested that *The Last Goodbye* relies upon virtual modes of engagement, which most prominently ask the user to take up the imaginary identification of the second generation, while remaining consciously aware of their own position. In sum,

both interconnected and overlapping modes of media witnessing ask the user to perform within Jewish contexts. Marianne Hirsch endorses such an experience as she states, “the museum needs to elicit in its visitors an imaginary identification – the desire to know and feel the curiosity and passion that shape the postmemory of survivor children” (1997, p.249).

Proposed in the 1990s, Hirsch first introduced the term “postmemory” in relation to Art Spiegelman’s *Maus* (1980) to describe a form of “intergeneration acts of transfer” whereby traumatic memory is passed down to the genealogical descendants of the Holocaust (2012, p.2). Since then, however, she has declared her intention to develop and redefine the term as “a space of remembrance, more broadly available through cultural and public modes of “remembrance, identification, and projection” (2012, p.9). Advancing from a personal standpoint she writes that this reconfiguration questions,

> how the familial and intergenerational identification with my parents can extend to the identification among children of different generations and circumstances and also perhaps to other, less proximate groups. And how, more importantly, identification can resist appropriation and incorporation, resist annihilating the distance between self and other, the otherness of the other
>
> (1999, p.9) [sic]

It is this understanding that I adopt in order to propose the familial witness as a form of postmemory that is “not mediated by recall but by imaginative investment, projection, and creation” (Hirsch, 2012, p.8).

2.8 Leaving Majdanek behind

Of course, the user is always already aware that they do not have any kind of authenticate, corporeal familial connection to a survivor, even when occupying this stance in and through the VR experience. However, to make it abundantly clear, the final scene in *The Last Goodbye* opens in Warsaw's Łazienki Park (also somewhere he visits in the earlier documentaries), and introduces a small boy, who places Pinchas' hat on his head. Pinchas states "I am always hopeful of the future. That things will improve. I don't know if they will in my lifetime but maybe yours…hopefully", clearly speaking to the young boy who (is far too young to understand) but nonetheless, relieves us of our duty to embody the surrogate child.

To be sure, both Pinchas and the child completely ignore the user who now merely occupies a spectatorial gaze until the credits roll. This shift in viewing position not only prepares the user to transition back to their lived environment within the museum, but also underscores their position within the chain of memory and thus, their duty to pass on this story to younger generations. Indeed, "feeling that a text imposes an obligation towards the events or people it depicts is part of what enables readers to judge that it *is* a witnessing text" (Frosh, 2007, p.274) (italics in the original).

Through an investigation into the positionality of the user in *The Last Goodbye*, I have discovered a radically inclusive viewing position, which offers the user a sense of a privileged first-person encounter with a survivor. As we have seen, they ask the user to perform the witness in both virtual and material ways. In this case, the "relations within the family becomes an essential conduit" (Kidron, 2015, p.9) for grounding such responsibility. Drawing on notions of performance, embodiment and

framing, this case study highlights that while the digital can offer new modes of witnessing, it also relies on older methods of memory practice as modes of engagement.

3. Witness in the Waiting Room: Zooming in on *Dimensions in Testimony* online

> We speak in code, we survivors, and this code cannot be broken, cannot be deciphered, not by you no matter how much you try (Wiesel, 1990, p.7)

Widely recognised as the first major digital Holocaust memory project, *New Dimensions in Testimony* (hereafter *DT*) was proposed by the head of Conscience Display, Heather Maio(-Smith) to the USC Shoah Foundation in 2010. Intending to preserve survivors in what Amada Lagerkvist terms "the digital afterlife" (2017), *DT* creates interactive digital recordings that enables people to pose questions to Holocaust survivors in the future. Commonly mistaken for and/or described as a 'hologram', survivors *appear* to be fully 3-dimensioanl in the exhibition space. This misunderstanding is most often triggered by the "holographic Pepper's Ghost theatres" which some museum partners have installed for the project's display. These use "lighting, specialized glass, and high-definition projection to give the appearance of depth to 2-dimensional videos", creating the illusion of 3-dimensional survivor projections (USC, 2020, [online]).

The museums themselves continue to perpetuate this rhetoric, for example, the Illinois Holocaust Museum and Education Center (the first partner to install the project in 2015), whose online web page is titled 'Interactive Holograms: Survivor Stories Experience' (2021). Stephen Smith (executive director of the USC Shoah

Foundation) confirms "[w]ords such as 'hologram' and 'avatar' fail to accurately describe *Dimensions in Testimony*. We avoid using these terms because to date, the technology to display a hologram does not exist, and 'avatar' implies that the image is animated or is somehow unreal' (2021, [online]). However, Kia Hays, the Program Manager for Immersive Innovations at the USC Shoah Foundation explains that the survivors are filmed in "360 degrees so that they are compatible with future display methods", meaning that these recordings have the potential to become "fully dimensional, interactive holograms" in the future (Gamber, 2021, p.219). Thus, rather than "digital reincarnations" or posthumous "Holocaust holograms", *DT* is currently defined by the USC as "a collection of interactive biographies" which provide people with an "opportunity to have a conversational experience with survivors of the Holocaust and other witnesses to history, far into the future" (USC, 2020, [online]).

Dropping the "new" from the project's title in 2018, Walden acknowledges "a shift from thinking about digital technology as 'new media' to grounding its use as normative in memory and educational practices". This "questionable (new)", Walden states, points to how the USC's work "sits at the precipice of the broadcast and hyperconnective ages" (2021, p.8). Agreeing with these observations, Stiegmaier and Ushakova propose, after Rachael Baum (2016), that *DT* can be understood as an expansion of the USC's Visual History Archive (hereafter VHA) (2021, p.91), which as previously stated, is the largest online database of videotaped interviews with survivors and other witnesses of the Holocaust, comprising of more than 53,000 recorded testimonies, expanding across 61 countries and 39 languages. At the same time, however, I also recognise, after Pinchevski, that this digital configuration is distinct from its audio-visual predecessors in its novel approach to

testimony as a form of "Interaction rather than narration" (Pinchevski, 2019, p.90). Taken together, I suggest that the user is invited to perform the role (Kinder, 2002) of the (VHA) oral history interviewer, as they once again find themselves in a face-to-face encounter with Pinchas Gutter. In what follows, then, I will deconstruct the positionality of the user through a phenomenological description of my experience.

To add nuance to these ideas, I return to Pinchevski's (2019) historiographic approach, which to remind the reader, traces the trajectory of "the first generation of the media of Holocaust testimony" from David Border's 1946 wire recordings of survivors in refugee camp across Western Europe, to the second wave which emerges in the 1970s with the Fortunoff Video Archive for Holocaust Testimonies at Yale University. Most importantly for our purposes, Pinchevski highlights *DT* as ushering in "the third generation" of the media of Holocaust testimony, which, combining the functions of preservation and reception is more precisely concerned "with interaction as a means of memorialization" (2019, p.89). Going further, this chapter also places Frosh's work (2019) on the VHA and the GUI (graphical user interface) in conversation with the current scholarship on *DT* to think critically about the witnessing dimension of the project as an "entanglement" (Walden, 2019; 2021) of the human experience and the technological apparatus (that which the producers seek to make invisible). In so doing, I respond to Frosh's call to attend to the "aesthetic qualities of embodied interaction, between users and digital devices and their implications for moral response" (2018, p.147). To tease apart such entanglements, this work primarily explores *DT* in its online iteration.

Launched in November 2020 in response to the COVID-19 pandemic, this was an abbreviated version of the experience which was embedded within the *IWitness*

platform to enable students and educators to engage with the experience from home. As previously mentioned, *IWitness* holds 1,500 VHA videotestimonies and offers school children the opportunity to remix segments of survivor accounts using an in-built online video editor. Already promoting a participatory and interactive website, *DT* seems like a natural progression for the *IWitness* platform. Hardly marking a radical shift, then, Shandler reminds us that the Shoah Foundation has long been at the forefront of such technical innovations and envisioned "making its collection of videos available through an online data retrieval system early in the institution's history, at a time when the internet was just becoming widely used" (2017, p.15).

Recalling the discussion which opened this thesis, I remind the reader of the impact the global pandemic has had on the (in)visibility of survivors online and the proliferation of digital Holocaust memory projects, activities and memorial ceremonies. Indeed, "videoconferencing has become the standard mode of communication" (Zimmermann, 2020, p.99) and we have become accustomed to engaging with everyone through our digital screens. This, I suggest, inadvertently creates opportunities for the development and reception of interactive biographies moving forward. Hence, this chapter will consider not only the role these communication technologies are playing for Holocaust memory practice during the pandemic, "but also the role the pandemic plays in giving sense to our relation to such media" (Mowitt, 2020, p.271). Using Zoom as the illustrative example, not least because it was the fastest growing platform in 2020 with an average of "350 million daily users" (Molla, 2020, [online]), the following sections considers how "zoomtopia" (Alexander, 2020, p.26) may have significant implications on how we approach and engage with *DT* online throughout the pandemic and beyond. Indeed, it should not go unnoticed that museum docents working with the technology in the

museums have drawn such parallels, as Elissa Frankle at the USHMM comments, "today, the ubiquity of talking on Skype or Facetime means that the idea of asking questions of a face displayed on a flat screen, and having them answered in real time, is pretty natural for a number of our visitors". She continues, "fortunately, *not* having a hologram is exactly the right technology right now" (2016, [online]) (italics in the original).

While much of the literature on *DT* has primarily focused on the ethics, the (pre)production, and the experience in pedagogical and museum contexts, this chapter seeks to deconstruct the framing of the user to critically consider their role in the exchange. Indeed, through this investigation, I discover that the online version affords the user agency through embodied interactions with the digital interface that are unique to this mode of address. In turn, I argue that their encounter with Pinchas, as remediated digital survivor, encourages a radical self-reflexive position, a form of digital witnessing which discovers the fundamental limits of understanding Holocaust testimony through a form of experiential and embodied knowing. Far from understanding this as a substitute version in the wider history of the project, then, this work underscores the online mode as a critical offering to the public as we continue to advance towards the post-survivor age.

3.1. Dimensions in Testimony

According to designers of *DT*, the power of the face-to-face survivor encounter lies in the ability for audiences to hear their testimony live in-person and to be offered the opportunity to ask questions and receive immediate and direct responses (Traum et al., 2015, p.270). As Liberman argues, "The actual testimony of witnesses provides us with a three dimensional life-breathing force, from which we cannot

escape and which we cannot deny" (2003, p.270). Despite being a digital database (a point I will return to), *DT* creates "a humanistic model of interface and interaction that emphasises exploration and interpretation over task and information retrieval" (Whitelaw, 2015, no pagination). This logic also motivates its UK counterpart, *The Forever Project* (2016) at the National Holocaust Centre and Museum. While markedly different in their budgets and display (*The Forever Project* uses stereoscopic 3D projection which requires 3D glasses), both digital exhibits are often discussed in tandem. Also noteworthy is the *Learning with digital testimonies* (*LediZ*) (2019) project which introduces the first German-speaking iterations, emerging from a cooperation between the LMU Munich, the Leibniz Supercomputing Centre, and *The Forever Project*.

The USC Shoah Foundation, the USC Institute for Creative Technologies (ICT), and Conscience Display, hoping to simulate a real-life encounter with Holocaust survivor Pinchas Gutter, created their first prototype during March 2014. Asked between 1000 and 2000 questions over the period of five days, Pinchas was interviewed and filmed on a large-scale light stage: "an eight-meter geodesic dome lit by six thousand LEDs and mounted with some fifty high-resolution digital cameras capturing [Pinchas] from multiple angles" (*fig 9*). A technique called "light field rendering" is used whereby "multiple cameras capture the light rays reflected from the scene, each from a slightly different angle; the combined video feeds are then synthesized to create a three-dimensional projection" (Pinchevski, 2019, p.93). This process has since developed into a portable mobile rig with 23 cameras, enabling the interviewer to join the survivor in closer proximity during the questioning. It has also "extended the number of possible interviewees and resembles the original aim of the Visual History Archive to visit survivors in their

home" (Stegmairer and Ushakova, 2021, p.81). In addition to their answers, recordings are made of idle behaviours, resting poses, and listening positions, alongside clips of "visual morphing and off-topic answers" (Pinchevski, 2019, p.98) to create the conditions to simulate (in theory) a seamless dialogic encounter.

Figure 9 – Dimensions in Testimony, Pinchas Gutter being filmed on ICT light stage

Using automatic speech recognition and sophisticated natural language processing software, the "statistical algorithm builds a model that predicts words that are likely to appear in the answer, given the words that are seen in the question. Responses are ranked based on how closely they match the predicted answer words" (Traum et al., 2015, p.274). To be clear, the model is designed so that a visitor/user can ask the (remediated) survivor a question and the system will trigger the most appropriate response. In instances where the input scores below a certain threshold, that is when the question cannot be matched with a pre-recorded clip, the system will trigger a response such as "The question you asked me, I'm afraid I won't be able to answer" and may have to repeat and/or rephrase the question (Pinchevski, 2019, p.93). This

type of reply from the survivor, termed “non-understanding” is favourable over arbitrary or inappropriate answers “(misunderstanding)” (Traum et al., 2015, pp.274-275). Over time, however, through machine-learning technology, “the survivors refine ‘their’ answers to those questions by learning to better understand what is being asked and providing the best answer in their repository” (Gamber, 2021, p.217). As indicated above, I seek to expand upon Baum’s (2016), Stiegmaier’s and Ushakova’s (2021) proposal that *DT* can be understood as an expansion of the USC’s Visual History Archive through paying close attention to the positionality of the user. Before moving onto my experience of meeting Pinchas online, I want to first foreground the relations between the VHA and *DT*.

3.1 Visual History Archive

Following a major digitalisation project, the VHA made around 52,000 videos available for searching and viewing online, and as mentioned above, integrated those videotestimonies into the educational platform *IWitness*. What is interesting from our perspective, is that recordings of Holocaust survivor testimony have long been formatted into key words. Shenker’s research reports that “by removing the note-taking approach, the new indexing process reduced the amount of historical reviewing and increased the importance of the keyword list, which served as a skeletal structure for conducting individual testimonies”. Thus, he continues, “the indexing and cataloguing protocol drove the interview process, not the other way around, often at the expense of the specificity of the witnesses’ experiences” (2015, p.131). This is critical in recognising that the model for *DT* does not represent a radical break from what has come before, but rather, that we have been cataloguing, searching, and indexing survivor testimony since the mid-1990s.

It is also worth reminding the reader of the discussion in chapter one which pointed out the ubiquity of Holocaust survivor testimony online. Whether watching the USC's or USHMM's official YouTube channels for example, or viewing video extracts on the Fortunoff Archive website, we have become accustomed to engaging with survivors on screen and this has become the "new mobility of video testimony" (Wake, 2013, p.112). The VHA in this respect does not attempt to mask the interface but instead foregrounds the functionality of the screen through its icons and markers (Frosh, 2018). It is in this context that I underscore the importance of the screen in the online version of *DT*. While in its museum format "the interaction aims to eliminate the awareness of using an interface altogether, creating the feeling of a dialogue with the recorded survivor" (Stiegmaier and Ushakova, 2021, p.86), here, during a global pandemic, the screen makes an essential return which, as I will argue below, is critical to the affective dimension of the experience.

3.2 Meeting Pinchas again

As I expand my browser into full screen display, I can see Pinchas sat within a red chair against a black backdrop. The recording of Pinchas' idle movements and listening pose simulates a sense of 'liveness', as he sits patiently waiting for me to adjust my settings and turn on my microphone. Upon granting access to my microphone, a red dot appears in the right-hand corner of my (Apple MacBook Air) screen and a red microphone symbol appears next to the URL to signal that I am 'on' (in the same way the green dot signals that your camera function is activated during a Zoom call). I click to hold down the microphone button and say "Hi Pinchas" to which he responds "Hi! How are you?". I reply, "good, thanks, how are you?" which triggers his response, "uh, reasonably well" (*fig 10*).

While I wish to highlight the similarities between this encounter with Pinchas and that of a videoconferencing call, there is also a crucial difference in the mode of display. To be clear, I am only invited to turn on my microphone during the exchange, my webcam remains off. Not only does this privilege Pinchas (a point I will return to), but it also limits the potential for being distracted and confronted by my own mirror image on screen. Several scholars have begun investigating the affects/effects of continuously looking at ourselves on screen during videoconferencing. Calling this phenomenon "self-monitoring 2.0", Zimmermann, for example, points to the potentials for this to cause an unsolicited "uncanny" encounter "which leads the self to protect the self by imagi(ni)ing the self as other" (2020, p.102-103). Indeed, one of the first empirical case studies to assess the potential consequences of such exposure – what scholars are calling "the Zoom effect" – suggests that there is an increase in self-focused attention, a growing concern over self-image (dysmorphic concerns), and rise in video-manipulation behaviours (Pikoos et al., 2021). In light of this emerging research, then, I suggest that the system design mitigates the potential pitfalls of seeing ourselves on screen, which could increase the risk of, what Chouliaraki (2008) terms, "improper distance" and lead to a kind of ironic witnessing of the self. Instead, this framing encourages us to focus our attention on posing questions to Pinchas. While I will develop this point in more detail below, it is worth noting that this also echoes the original set up for the VHA interviews, in which the interviewer was positioned outside of the frame, never seen, but occasionally heard.

Gamber highlights Pinchas' waiting stance as particularly revealing in this regard, as he "holds out both hands to us, beseeching us to join him" he continues, "his posture is that of a storyteller" (2021, p.221). Here, his full body image is visible in contrast

to the “talking head” mid-close up standardized within the VHA interviews. However, Machado makes plain, in videoconferencing, “the problem of whether or not these images are ‘close ups’ is in no way a matter of measuring ‘shot sizes’ of the human body”. He continues, “it’s the fact that they are *integrally* conceived as signifying surfaces of selves, […] with a physiognomic function, which links them to a historical practice of the close up” (2020, pp.201-202) (italics in the original).

Nonetheless, Hill maintains that when people are on screens, “approximately 75 per cent of all gaze activity will be focused on faces because they’re the sensory centre of our lives, and a way to read another person’s mood and intent” (Hill, 2010, p.69). Ensuring that the survivors were consistently looking directly into the lens of the camera (and that a human was on the other side of the camera during recordings) Maio-Smith designed the encounter so that the user would *feel* as though they were returning the gaze (Smith, 2020, [online]). As we have seen in *The Last Goodbye*, this has an affective dimension. Whilst I am aware the image cannot look back at me, I still feel as though I am being addressed. As Pinchevski puts it, we can understand ‘the mediated face as a medium of address with and despite being a medium of appearance” (2016, p.203). In turn, this creates a sense of “social presence”, which to remind the reader, is understood here as the sensation of “being with other selves in a real or virtual environment, resulting from the ability to intuitively recognise Others’ intentions in our surroundings” (Riva et al., 2014, p.18). Indeed, Shenker noted that during the *DT* pilot project at the USHMM, it was the eye contact with Pinchas that keep drawing him in, persuading him to ask more questions (2017, [online]).

3.2.1 Pinchas online

Returning to my conversation, I tell Pinchas I am glad to hear that he is doing well, and he responds by asking if I would be interested in hearing about his life in South Africa. To which I answer, “yes, tell me”. Without repeating the keywords (“South Africa”) back to him however, the system fails to find a match and triggers another question from him, “would you be interested in asking me about my life before the war?”. I quickly realise that I need to phrase my questions carefully, always including a key word which will trigger a response from the system. This time, I respond “yes, tell me about your life before the war”, and so he describes his happy childhood, and shares an anecdote about being sent to the mountains to live with the “Christian people” when he was sick.

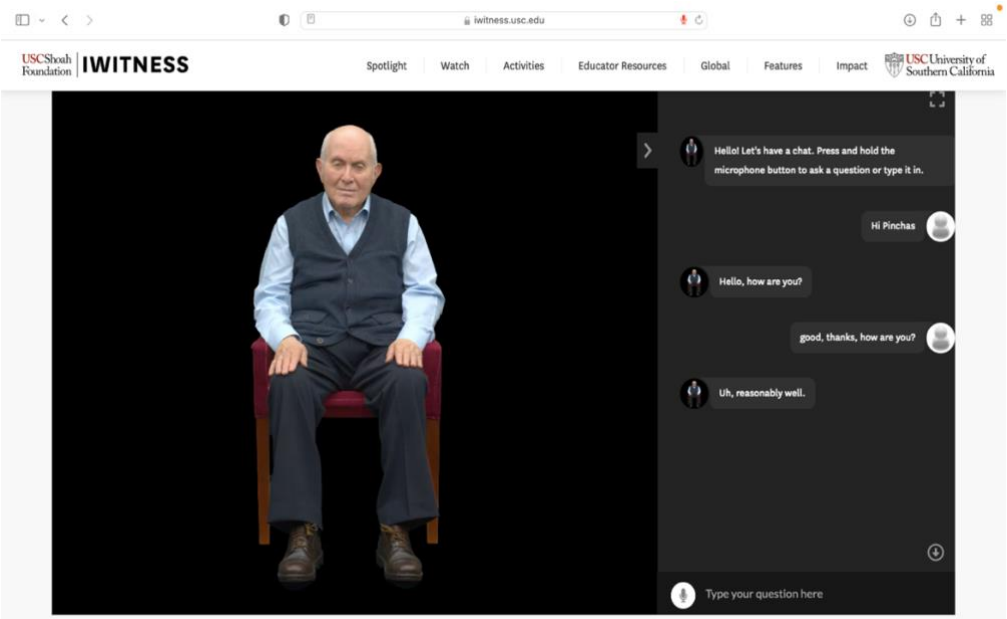

Figure 10 – Dimensions in Testimony, Pinchas Gutter online (note the red microphone icons)

From the outset, it becomes apparent that there is no concrete structure to the interview. Whilst it seems logical, and to some extent typical, that our conversation

has started chronologically with comments about his pre-war life, it is, as we have seen, by chance. If, for example, my original reply had included the keywords "South Africa", then we would have started the conversation with Pinchas' post-war life as he relocated there in July 1959 to be with his wife and their family. In the online format, then, I have the option to pose any question directly to Pinchas.

While I will discuss my experience of *The Forever Project* at the National Holocaust Centre and Museum in more detail towards the end of this chapter, it is worth noting here that the museum docents not only started the conversation (for a demonstration of the technology) but also repeated and/or rephrased the students' questions to maximise the likelihood of generating an appropriate response. This arrangement hindered the sense of first-person address as the museum docent was positioned as a mediator between the survivor and the interlocutor (and only they were in possession of the microphone which could connect to the system itself). While the online encounter still has a fragmented structure, with a continuous stop-start mode of speech, it is not dissimilar to how we communicate in online meetings, often muting and unmuting our microphones when it is our turn to speak. In other words, Hagener states, in videoconferencing "the spontaneity of real interactions is turned into a scripted situation". He explains, "speaking in the conversation becomes less a spontaneous reaction to something that has been said, than a carefully orchestrated intervention that needs to be planned and performed" (2020, p.39). Furthermore, misunderstanding, "non-understanding" and repeated and/or rephrased questions are part of the nature of Zoom calls, often caused by connection issues, background noise/ audio interference or simply by participants speaking over one another.

The transition between his listening pose and the recorded clip makes the image of Pinchas blink and reappear with slight deviations in position and posture. It also flickers at the end of the recording, which, some have suggested, impoverished the social encounter by triggering an "eerie" sensation during their museum visits. Recalling his experiences with *The Forever Project,* Schultz, for example, reports there was a "lack" of empathic response (2021, p.7). Referring to his interaction with Stephen Frank's recording, he writes of an uncanny "eerie sensation" that triggers an understanding of the survivor as "real/unreal", which ultimately blocked his ability to form an empathetic connection. Comparable to notions of the "not-not real" (Popat, 2016, p.372) or "almost really real" (Grau, 2003, p.7) form the previous chapter, Schutlz found the image "too crisp", the lighting "uneven" and the visual details of some objects (such as Frank's chess piece) stark in comparison to his chair (2021, p.8). I would add from my own observations of the museum experience that this "uncanny" feeling can be generated by the transitioning between clips of the listening and/or resting poses, as the survivor projections tend to continuously fidget, blink, and nod their heads. Focusing on this specifically, Brager compared the *DT* projections exhibited at the Museum of Jewish Heritage in New York to "video game characters waiting to be selected" (2018, [online]).

Referring to what is known as the "uncanny valley", Pinchevski explains,

> it is precisely in the moments when the simulation seeks to simulate the contingencies of human interaction that technology reveals itself most starkly. The more real is the virtual, the more jarring the glitches. What becomes apparent in such moments is not the overtones and undertones of bearing witness but the underlying

> computational procedures of the testimony algorithm, or to quote Ernst, "not physical but mathematical moments of the real".
>
> (2019, p.98)

Crucially, however, this *out-of-synchness* in the online iteration can be more readily excused as a technological glitch, inherent to all online conference calls and digital meetings. Caused by a weak WIFI connection, too much traffic on the network server, or a device malfunction, digital lagging such as freezing, buffering or acoustic interferences are not only a common occurrence, but have come to be expected when using digital communication technologies online, especially during the global pandemic. As Alexander notes, "internet users tend to blame themselves for any encounter with technical friction" (2020, p.26), frantically checking their bandwidth and router connection. Switching between "operative" and "hermeneutic" modes of attention, I find myself clicking on the screen to check my desktop settings to optimize and streamline the experience in order to focus on Pinchas' responses as a form of testimony. Not only do these 'glitches' (especially at the start of the experience) provoke a high level of self-consciousness, but the micro-temporal delays are masked by my own interactions with the computer as technological apparatus, rather than Pinchas-as-machine. This somewhat ironically, *humanises* Pinchas' recording, or at the very least, reduces the sense of "the uncanny".

3.3 The return of the screen

While the pandemic further legitimizes the central ambition of *DT* to render survivors present in their absence and to enable future interlocutors to address them in their "digital afterlives" (Lagerkvist, 2017), it also complicates the project in a

contemporary context. To be clear, the time-axis manipulation of past/present which underpins the project, is reconfigured to *here/there*. What is at stake for us under the rules of social distancing and global lockdowns, is spatial proximity to others. As Ebbrecht-Hartmann has acknowledged, the pandemic points to the absence of survivors whilst they are still with us (2021) and thus, in this context, *DT* necessarily becomes centred on interaction from a distance. It is this sense of *being there* – together/apart in this particular liminal moment which I argue offers new affordances to our witnessing practice online. Recall Peter's (2001) "being there" as the paradigm case for witnessing, which calls for "an attitude of moral responsibility" and "active response rather than contemplation" (Nash, 2017, p.122).

Moreover, as more and more scholars attempt to define "pandemic time", they call for an alternative epistemology of time that is characterised by latency and liminality. As Chan puts it, while "our digital lifeworlds proliferated exponentially", they produced an "uncanny" sensation of being "out-of-sync" with a "world stood still" (2020, p.132). Indeed, the collapsing of professional timetables and time zones online, creates a tempo of time that is at once asynchronous and contemporaneous (Malamed and Keidl, 2020, p.16). Making the case most forcefully, Alexander argues that "buffering" can be used a metaphor for how the pandemic "necessitates waiting: for new guidelines, for testing, for 'reopening' (2020, p.27). To remind the reader, she posits, "waiting under the conditions of uncertainty" for an unknown length of time, creates a perpetual sense of "anxiety" and "constant state of alertness" (2020, p.28).

While the screen has long been thought of as having a double function, as both window (Friedberg, 2006) and shield, enabling us to perceive things in the world

whilst also simultaneously *screening* us from that world (Cavell, 1979), in "pandemic time", the metaphor takes on further resonance. Notwithstanding its "interactive real-time" affordances, it also serves as protective equipment, a "physical barrier, a virtual face shield" (Baronian, 2020, p.317) against the danger of contagion of a virus, an invisible entity that poses a (life-) threatening risk to myself and others. In the same way Baronian reconceives the facemask as a textile of care, that is, we wear a mask in the presence of others to protect them (2020), I argue that the reintroduction of the screen as media and medium, adds a new dimension to our understanding of "proper distance" (Silverstone, 2003) (recall chapter one) in relation to survivor testimony.

While Pinchevski acknowledges that Silverstone "argues against fanciful new media rhetoric that equates interaction with commitment" (2019, p.67) claiming that the "the mediated face makes no demands on us, because we have the power to switch it off and to withdraw" (Silverstone, 2003, p.281). I propose, following the emerging literature, that "pandemic time" is characterised precisely by the demands it makes on us to interact with (re)mediated faces, creating a moral dilemma should we choose to withdraw from our screen-mediated lifeworld or "screen-sphere" (Sobchack, 2016).

Caroline Wake's model of "tertiary witnessing" is particularly useful here and offers an understanding of how spectators of videotestimonies online can still feel an "emotional copresence" despite and even because of, being acutely aware of their spatiotemporal remove (2013, pp.129-130). As indicated in the first chapter, the visibility of the medium in the case of the pandemic can in fact, foster a sense of together-apart and "emotional co-presence". Acknowledging that "viewers may

oscillate between immediate and hypermediate witnessing" in the course of their experience, Wake outlines the temporal collapse at work in videotestimonies which can lead to a spatial collapse, "a feeling that 'there is nothing between us and the survivor' despite the fact that there is (an interview, a camera, a frame, a lens, a screen, an institution etc.)" (2013, pp.126-127). Patricia Yaeger describes this sort of embodiment as illusory or "epiphanic". She writes, "we have this illusion of direct address: the survivor, facing the camera, seems to be speaking to me. He or she tells a horrifying story, until the feeling of being-with, of being-there, is quite intense" (2006, p.416).

Indeed, As Pinchevski explains "what the move towards framelessness as represented by *NDT* ignores is that the frame not only separates but also connects; indeed, connects because it also separates" (2019, p.102). In this online reconfiguration, then, there is a hypermediated sense of liveness and co-presence through a mode of first-person address and a simultaneous awareness of the illusion of that presence, an understanding of Pinchas as recording, as database. As will become clear from my analysis below, the screen as frame "becomes indispensable in its own breaking" (Pinchevski, 2019, p.103).

3.4 In conversation with Pinchas

Intrigued by Pinchas' mention of the Tatra mountains (and hoping to create an organic flow to the conversation), I follow up with a question about his time there. He explains that he was there to recover from double pneumonia and fondly recalls being free to spend time with the animals before the war started. With his mention of the war, I ask him "what happened when war broke out?". The system, however, matched this to a recorded clip about Pinchas' liberation. He says,

> When I was freed, I ran out to see what was going on, and I saw a lot of Russian soldiers walking and chasing, you know, uh, Germans out of the place where I was in Czechoslovakia. But what I did is that I saw a wagon with two horses and because I remembered how to, you know, play and work with horses on my grandfather's farm, and there was nobody around, I went and I sat on the wagon, took the reins, and appropriated, and took those horses for myself. And for the next three months, those horses belonged to me.
>
> [sic]

I asked him what he did with the horses, and this led him to explain that the British RAF transported him to Windermere in the Lake District, forcing him to leave the horses behind (although an officer convinced him that his horses would follow him to England by boat). On this subject, I ask him more about his journey to England. By this point, the conversation begins to feel like a puzzle that I am piecing together, as I hear fragments of stories and anecdotes about certain experiences, all unravelling in a kind of episodic structure. While this is to a large extent the very nature of memory itself, it also brings us back to Langer's comprehensive research on Holocaust testimony more specifically, that which resists traditional narrative episodes and requires a form of "fragmentary excavations" (1991, p.161).

I spend the next three hours with Pinchas, carefully (re)phrasing questions to reveal and unravel memories of Majdanek, his transportation to Skarżysko, to Częstochowa Żelaza Huta, to Buchenwald and then to Colditz and finally the death march to Theresienstadt in, what was then, Czechoslovakia. I also asked him about his post-

war life and so he told me about marrying his wife, having his children and now, his three grandchildren. In fact, he told me about his familial return to Poland and the documentary he made with Stephen Smith, *The Void*, already discussed in the previous chapter. Inevitably, however, any mention of *The Last Goodbye* triggers a response ("goodbye" being the keyword) form Pinchas in which he bids me farewell (as his recording for *DT* was produced before the VR documentary).

Nonetheless, the comparison between these two experiences warrants further consideration. As has been demonstrated, *The Last Goodbye* encouraged me to attentively listen to Pinchas' testimony and *stand in witness* as he ushered me around various "micro-sites" (Cole, 2013) within Majdanek. *DT*, on the other hand, requires me to actively pose questions to Pinchas in order to hear his account, I am solely responsible for the development of the experience and dialogic encounter. For all intents and purposes, I have transformed into the interviewer

3.4.1 The oral history interviewer

Positioned as a "pseudo interviewer" (Pinchevski, 2019, p.101), then, it falls to me to ask Pinchas questions and keep the conversation going. Recalling Kinder's work (2002), I am invited to performatively act out a role as interviewer, or as Pinchevski reconceives it, the "witnessee". Such "user-centered design", he argues, "shifts the emphasis from the witness as the deliverer of testimony to what might be called the "witnessee" – the digitally enabled participatory recipient" (2019, p.104). Before moving on, it is important to critically consider the relations between the "witnessee" and the roles of the traditional oral history interviewer and the survivor-witness. In other words, what is both new and not new about this subjective identity position and more specifically, the framing and set up in the interview exchange. As

I will demonstrate below there are significant similarities between the VHA interviewer and the position I find myself in when speaking to Pinchas online.

Much work has been done on the subject of oral history interviews and Holocaust survivor testimony, from James E. Young's ground-breaking book *Rewriting the Holocaust: Narrative and the Consequences of Interpretation* (1988) and Lawrence Langer's work *Holocaust Testimonies: The Ruin of Memory* (1991), to Noah Shenker's more recent contribution *Reframing Holocaust Testimony* (2015). Shenker's research on the USC Shoah Foundation, the USHMM and the Fortunoff archives, offers an important analysis of the lesser-known aspects of the audio-visual interviewing process, and exposes some of the methodological approaches these institutions take towards recording, preserving and indexing their collections. Most importantly his observations help reshape our understanding of the processes involved in oral history interviews, which he convincingly argues, are an act of co-authorship, an entanglement between the institution, the interviewers and the eyewitnesses. Going further, Shandler maintains that the holdings in the VHA are "cultural works that are complex in form", they are, he writes, "simultaneously autobiographical narratives, collaborative performances, works of video, and archival documents" (2017, p.5).

Shenker's discussion on the USC's VHA is particularly illuminating in this context, as he shines a light on the "extensive pre-interview protocol". He reports,

> An early internal memorandum entitled "Techniques for Effectively Applying Interview Methodology" affirms as follows: "The goal of the interviewer is to elicit a *narrative* from the survivor. A good

> testimony is one in which the survivor has a chance to tell his story *in his own words*". To advance that goal, interviewers were trained "not to engage in discussion," but rather to work as guides by "asking questions that pertain to the survivor's experience"
>
> (2015, p.118) (italics in the original)

Problematising this interview methodology, Shenker exposes the "underlying contradiction" inherent within the training. While the VHA sought to "extract pure testimonial accounts", its developed practices which repackaged those moments of memory into "accessible narrative segments", or as the protocol puts it "properly sequenced, chronological framework[s]" (2015, p.118). Going so far as to compare this to the Hollywood cinema paradigm, Shenker exposes how interviewers would create a "three-act dramaturgical structure", comprising of the "survivor's life before, during, and after the war" which would be shown to them at least one day ahead of the interview itself (2015, p.119). Beyond this, the interviewer had to undergo training, questionnaires, (self) assessment, and role play exercises as pre-interview preparation, whilst also monitoring the survivors ahead of the interview and refining their list of pre-written questions (2015, pp.118-123).

Albeit without such rigorous training, I find myself in a similar position to the USC interviewers. To be sure, Shenker reports, "one of the interviewers' primary responsibilities was to make the session as 'smooth' as possible, ensuring a fluid and easy-to-follow narrative progression." (2015, p.124). To this end, interviewers were told to "keep their questions to a minimum" (Shenker, 2015, p.124). Indeed, the system itself articulates such instructions, as I have learnt through trial and error that

appropriate responses from Pinchas are triggered by keeping my questions as concise as possible. In other words, I must not "engage in discussion" but rather consciously select keywords, which, relevant to Pinchas' life experiences, will rank high enough to generate his pre-recorded responses. While the USC interviewers were told to approach their conversations like "a chess match in which silence allows a witness to contemplate his or her answer without distraction" (2015, p.119), the metaphor of a game carries over and has currency here. Crucially, however, as the next section will demonstrate, it is not a game of equal opportunity, and it is a game I cannot win.

3.5 Playing the database

While there is to some extent a "reconfiguration of the relation between addresser and addressee of testimony" (Pinchevski, 2019, p.101), I argue that the survivor is still privileged in this encounter. Not only does Pinchas' full body image fill the screen, but I remain anonymous throughout the entire process. My camera is not turned on (the USC interviewers were also told to stay out of the frame), and I do not see myself reflected back on screen. Moreover, Pinchas' avatar appears next to his written speech in the chat box, whilst I am represented by an anonymised faceless silhouette, further underscoring the emphasis being placed on the identity of the survivor and their testimony.

While the speech recognition software invites me to verbally pose questions to Pinchas, I soon discover that typing the questions in the chat box function will consistently generate more accurate responses from Pinchas and therefore reveal more of his testimony. To corroborate these claims, I spent one hour with Pinchas solely using the microphone to communicate and the next two hours asking the same

questions via the keyboard. An excerpt from the transcript of our verbal conversation illustrates some of the issues I encountered when using this method (*fig 11*). For instance, each time I used the word “Majdanek” (obviously an important key word in the repository), the system misunderstood my pronunciation and instead produced “my damm” and “damek”. Similarly, when I addressed him by name, the system interpreted “Pinchas” as “pink hats” inevitably triggering a “non-understanding” answer.

I also feel compelled to acknowledge and respond to his answers before asking my next question, which in turn, means imputing more data into the system that is at risk of being misinterpreted. Moreover, as we often inflect our speech with vocal disfluencies, additional words and pauses, these are also at risk of being picked up and mistakenly converted by the system before appearing as written language in the chat. Beyond this, however, Stiegmaier and Ushakova note that “while the speech recognition software renders all questions asked relevant, studies have shown the implicit bias of speech recognition, particularly when it comes to minority or underprivileged geographical regions and their linguistic expressions” (2021, p.67). I will return to this point in my discussion of the museum experience below.

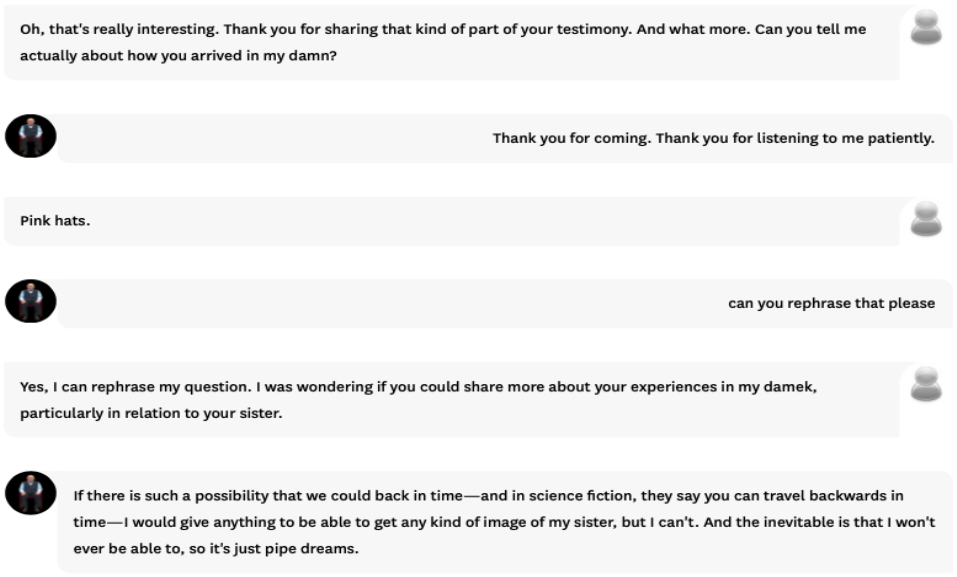

Figure 11– Dimensions in Testimony, transcripts of the conversation with Pinchas showing errors using the microphone (note the avatar symbols).

In switching to the written mode of communication, then, I become much more conscious of my wording, spelling and length of enquiry. As Hogervorst makes plain, "an effective interaction demands that users are aware that is the *transcripts* of the interviews that they are searching. That means that users have to type in some of the literally mentioned words of the interview in order for the system to retrieve any relevant results" (2020, p.10) (italics in the original). Indeed, it is not long before I find myself actively trying to guess the keywords in the repository which might 'unlock' more of Pinchas' testimony. In this way, I am, as Nash puts it, "perform[ing] the database, engaging in a relationship with the database and the subject" (2022, p.23).

Advancing on Carmelle Stephens assertion that there is a "subtle ludic undercurrent" (2021, p.247) to this experience, I propose that this online encounter with Pinchas unfolds like a (digital) game in which I must learn the logic of the database in order

to continue with the exchange. To be clear, the more direct and succinct my questioning, the more seamless the encounter becomes. In fact, I feel particularly pleased when Pinchas repeats my question back to me in his response. Manovich articulates this point; games "demand that a player can execute an algorithm in order to win. As the player proceeds through the game, she gradually discovers the rules that operate within the universe constructed by the game". He continues, "she learns its hidden logic – in short, its algorithm" (Manovich, 2001, p.222).

It is worth stressing that by switching to the written form of communication and opting for the chat box function, I am (verbally) muted. Pinchas is privileged not only within the visual domain as "talking head" but also through sound – his voice is the only one heard during our subsequent conversations. Importantly, this adheres to Hartmann's instruction to keep "the survivor at the centre… visually as well as verbally". To be sure, in the early Fortunoff videotestimonies, the image was thought of as an "amplification of the puncturing details of speech – gestures, postures, expressions, pauses, silences – all markers of what Hartman calls the survivor's "embodied voice" (Pinchevski, 2019, p.51). This is further reinforced by the transcripts which evidence the power imbalance, as my single line enquires are continuously outweighed by Pinchas' lengthy responses, (which sometimes lose focus or go off on tangents) (*fig 12*). The strictly no editing policy applied to the original VHA interviews is carried over here. Thus, as "the team does not edit any of the recorded clips, survivors determine the length of the answers" (Stiegmaier and Ushakova, 2021, p.80). In fact, in his study, Shandler highlights how survivors often resist attempts made by interviewers to periodize their testimonies into sections and how some challenged the interview structure by suddenly integrating objects into

their accounts or forcing the camera to move to focus on wounds and scars on their bodies (2017).

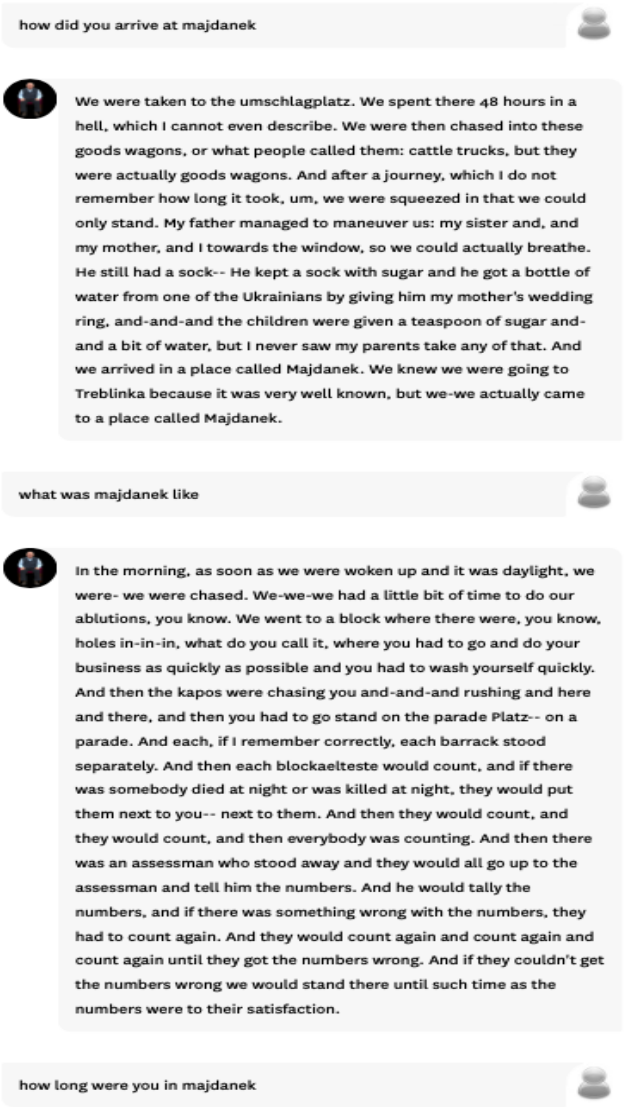

Figure 12 – Dimensions in Testimony, transcripts showing the contrast in the length of responses.

While interviews by their very nature, typically foreground the interviewee's responses, there is still a sense of a hierarchical structure, which renders the subject and the database in control over my actions. If, for instance, I try and take my time cushioning the questions – with a sensitivity and delicacy that seems only natural

given the emotional weight of the testimony itself – then my questions are at risk of being rejected by the system. Thus, there is little room for my emotional responses as my own hesitations and pauses are rendered problematic. An issue, which according to Shenker, was addressed in the guidelines for conducting the USC interviews, as those involved were reminded to stay focused on the technical aspects of the job at hand. He argues, these guidelines "seem to aim directly at containing the often shattering events that surface when testimonies are shared, suggesting somehow that participants in the testimony process can compartmentalize the technical, emotional, and historical streams of remembrance" (2015, p.126). Shandler's research supports such claims as he reports interviewers were "instructed to approach interviewing as dispassionate professionals – for example, not to make sympathetic comments or otherwise engage the interviewee except in the pursuit of information" (2017, p.167).

To put it differently, if I inflect my speech with sympathetic remarks, I am less likely to be *rewarded* by the system with an answer which matches my enquiry from Pinchas. If I want to successfully conduct the interview and navigate the database, I must adhere to the rules of the exchange. My subsequent questions must be short, direct and aim to include (and therefore guess) at least one keyword. Of course, as the conversation progresses, I become aware which keywords will trigger particular answers, and I therefore need to work even harder to avoid generating the same response twice. For instance, if I ask Pinchas if he often thinks about the moment he was liberated, he will retell me the story about taking possession of the horses all over again. Thus, I need to carefully reframe the question in a way that might generate a new response that still pertains to my enquiry; not about the events of the liberation per se, but about how it exists in his memory. This moves the conversation

beyond a surface level description of events and onto more complex themes surrounding memory, experience and trauma.

Such rejections by the system – at a technological level – fosters a self-reflexivity about the activity I am engaged in. In reinforcing my duty to interview a Holocaust survivor about his experiences, I am reminded of the gravity and weight of the encounter, the privilege of coming face-to-face with Pinchas, a morally demanding orientation. This echoes Laub's writing on the Fortunoff Archives, when he states, "the interviewer has to be, thus, both unobtrusive, nondirective, and yet imminently present, active, in the lead" (1992, p.71). He argues,

> The listener, therefore, has to be at the same time a witness to the trauma witness and a witness to himself". He continues "It is only in this way, through the simultaneous awareness of those inner hazards both in the trauma witness and in himself, that he can become the enabler of testimony – the one who triggers its initiation, as well as the guardian of its process and of its momentum.
>
> (1992, p.58)

Needless to say, this is an incredibly tenuous process, the technological discrepancies can make it difficult to keep "momentum" and can cause the user to walk away at any point.

3.5.1 Sustained Engagement

Such sustained engagement is a tall order for both online archive projects and digital exhibits in museums. Hogervorst's (2020) recent study of the Dutch online portal *getuigenverhalen.nl* ('witness stories') (2010), which gives access to almost 500 video interviews, is an illustrative example. Hogervorst found that while "The portal was consulted about 26,000 times in 2017" which accounts to "more than 2,1000 times a month", an average visit to the website (including referral spam, clicks to subpages as well as the interviews themselves) took "only 2 minutes and 31 seconds". The most substantial engagement with the interviews came from one user who spent 29 minutes, meaning not one person "watched an entire interview, which takes mostly about 90 minutes" (2020, p.172). However, seeing promise in the search functionality (the user can enter keywords into a search bar), Hogervorst points out that users "consult four times more pages (interviews) and stay longer, 12.33 minutes in average". Recognising that user-centered design is an essential characteristic of the "The Era of the User", she concludes that the site has the potential to enable "a postponed and mediated 'dialogue' between a witness and a portal user" (2020, pp.179-180).

Anna Reading's audience study of visitors within the Museum of Tolerance in Los Angeles provides another example which gathered similar results. She discovered that visitors who engaged with the computer consoles tended to select subjects familiar to them such as "Anne Frank" and "Auschwitz-Birkenau" by default (Reading, 2003, p.79). To some extent, this is similar to how visitors have reportedly interacted with *DT* at both the USHMM and the Illinois Holocaust Museum (Lycan and Artstein, 2019), where brief encounters occur with one or two questions in passing, that appeal to the novelty of the technology as much as to the opportunity to

ask a survivor a question. In fact, Shandler suggests the museum display the survivor recordings as "objects of fascination" and goes so far as to compare them to "exhibiting 'exotic' peoples in ethnographic 'human zoos' at world's fairs and other public expositions in Western Europe and the United States, beginning in the 1800s and continuing well into the twentieth century" (2020, p.35).

What these examples highlight, then, is that there is no guarantee that users will use the technology in the pursuit of knowledge as they often struggle to move past obvious keywords and surface level enquires. In this way, *DT* online poses a bigger challenge to the user and is comparable to typical gamic structures, as the experience increases in difficulty as the interview unfolds. As we will see, the stakes become higher for the player/user as she continues to enact the role of interviewer. Laub's writing on testimony takes on added significance in this context, as he claims, "survivors pose us a riddle and threat from which we cannot turn away", for those who enter "into a contract of testimony, a journey fraught with dangers lies ahead" (1992, pp.72-74).

3.6 Defensive database

Three hours into the process, I feel both physically and mentally exhausted. I feel forced to walk away from the conversation without the full story and with only a partial understanding of Pinchas' experiences and his feelings about his legacy. Despite efforts to "enact a process of historical enquiry" (Nash, 2022, p.28), and to create a narrative structure of Pinchas' account, I am confronted by the sheer inexhaustibility of the conversation and seemingly limitless number of recorded responses. Pinchas, of course, has no tell-tale signs of tiring and will not pick up of my signals that the interview is coming to an end. He remains poised, always ready

and waiting for my next question further frustrating my desire for narrative closure and linearity.

To be clear, this is an exchange which, like the VHA interviews, gives "initiative to the witness" (Shandler, 2017, p.46) and fundamentally privileges the survivor through both sight and sound. Needless to say, I refute Schultz's claims that Pinchas is positioned as virtual assistant, "subordinate" to the "*commands* for details rather that respectful *queries*" from visitors (2021, pp.11-12) (emphasis in the original). Rather, I understand the database here in the same way as Wake conceives the archive, as "the witness for the witness" which "relieves the primary witness of the burden of repetition" (2013, p.132). In this formulation, I would add, that the database goes further to preserve a form of resistance (and agency) on behalf of the survivor that Shandler identifies in his research (2017). In Aleida Assman's words, it "survives the survivor and has the capacity to address numberless viewers and listeners" (2006, p.270) and in this case, users.

In separating the testimony from the survivor, Wake suggests that the recordings perform the ethical functions of "bearing witness on behalf of and in place of the primary witness, and finally, by bearing witness in front of the viewer" (2013, p.132). It is the latter mode of bearing witness which informs Wake's notion of the "tertiary witness", arguing that such recordings open a space through which the user can carry out repeated "'interrogations' without injuring the primary witness". This is a form of "rehearsal", a way to "practice listening, to learn how to hear silence, to complete ellipses, and to connect disconnected episodes (2013, p.133). While Shenker cautions that *DT* "privileges a process of soft technological immersion and mastery rather than initiating a dialogue between users and witnesses regarding the

nature of the latter's experience" (2019, p.1425), I argue instead that what is most important is coming to terms with the *lack of mastery* in this encounter.

Nash's writing on the database is critical here. She writes, "its malleability, its non-linearity, and its aleatoric potential, has been explored (to varying degrees) as an informational form that resists forms of narrative closure and totality" (2022, p.20). She continues,

> in exploring the database, I am struck by its informational excess, always threatening to overwhelm, which actively resists attempts at categorization and which, consequently, gestures powerfully toward the impossibility of completely grasping the significance of events.
>
> (p.20)

These essential characteristics of the database and its ability to overwhelm are fundamental to how I make sense of this encounter as communicating the very limits of understanding, and the impossibility of comprehending the experiences of the Holocaust. Crucially, I go onto suggest that these limits are revealed through an experiential form of embodied knowing.

3.7 Fragments

As explored above, I have enacted the role of the interviewer in an attempt to engage in dialogue with Pinchas. I not only consciously acknowledge the fragmentary structure of the conversation imposed by the rules of the system itself, but I *feel* the "formulations and ruptures" (Shenker, 2015, p.6) on my body. Put differently, in a

phenomenological sense, I have both cognitively and physically (through speaking, clicking and typing) registered the disruptions and most importantly, the resistance of the database (its inexhaustibility). To recall Frosh (from chapter one), he reminds us that at the level of the GUI, the "interactive real-time screen, haptic visuality and user-indexicality – create a structured and integrated embodied experience for users" (2019, p.363). He continues, such engagements with the interface, "technologically instantiates both the bodily and emotional potential of 'being moved'" (p.362).

While Frosh cautioned that an earlier prototype of *DT* was "obeying a media a priori" organised around the modular database rather than narrative (2018, p.363), I suggest that it is in the confrontation with the modular database (as it resists my narrative urges) which renders the experience powerful in a mnemonic context. Advancing upon games-scholar Ian Bogost's theory of "procedural rhetoric" (2006), I suggest that it is precisely the mechanics of the database which issues symbolic arguments about engaging with Holocaust testimony. The process, structure and rules of *DT* which eventually force me to surrender and therefore *fail* in my task as oral history interviewer, communicate a fundamental gap between knowing and understanding, between presence and absence, proximity and distance. To be sure, I cannot complete the interview, I cannot possibly ask all of the questions in the databank and therefore I cannot truly *know*. As Bogost proposes, games can issue persuasive arguments through the rules of experience, and in this case, both the resistance to narrative and threat of excess can be physically experienced or *felt* by the user (I will expand further upon Bogost's work in chapter five).

In this configuration, then, "the witnessee" does indeed "take responsibility for the development of the experience" (Walden, 2019, p.190) by posing questions, as a "pseudo interviewer" to Pinchas via the microphone or textbox. Hardly successful in

their endeavour to carry out the interview or replicate the emotive power of watching a videotestimony on screen, however, I go on to argue below that by discovering the limitations of the experience, they may "break the frame" themselves. Similar to the ways in which the "audiovisual unconscious" forces us to recognise the fundamental limits of comprehension, our embodied performance might bring about such revelations as a form of experiential knowing.

3.7.1 Breaking the frame

Pinchevski elaborates on the notion of "breaking the frame" by tracing the metaphor within both Felman and Laub's writing. These examples speak to the "crisis of witnessing" (Felman and Laub, 1992) (discussed in the opening chapter), that is, "testimonial moments that transcend the sayable, exigent articulations that come to signify precisely by failing to fully mean" (2019, p.102). We can return once again to Felman's interpretation of Lanzmann's *Shoah* (1985) here, as she describes "the double task of the breaking of the silence and of the simultaneous shattering of any given discourse, of the breaking – or the bursting open – of all frames" (1992, p.224). The film itself, Felman argues, "bursts open even its own filmic frame" (1992, p.241).

Going further, Pinchevski highlights another instance where Felman uses the metaphor in discussion of K-Zetnik fainting whilst on the stand giving his testimony at the Eichmann trial (also discussed by Hirsch and Spitzer, 2009; Caruth, 2017). Considering this "a rupture in the legal frame" (Felman, 2002, p.153), Felman understands this moment as the "failure to give voice to trauma through legal procedure, and simultaneously the performing of that failure within the procedure" (Pinchevski, 2019, p.102). Indeed, covering the trial, Israeli poet Haim Gouri stated that in fainting, K-Zetnik "in fact…said it all" (2004, p.129). Adding perhaps yet

another example of the frame, Thomas Trezise's writing on the memoirs of Auschwitz survivor Charlotte Delbo claims, "the voice of testimony cannot fully coincide with itself torn as it is between the language of fact and the *shattering of the very framework* on which the indelibility of such language relies" (2002, p.7) (italics added).

These ideas have already found expression in the first case study, when discussing Pinchas' performance of testimony in *The Last Goodbye*, particularly in moments of "deep memory" (Langer, 1991) where his testimony ruptures, repeats, and pauses. Acutely aware of the importance of these moments in testimony, Stephen Smith himself proposes the term "*supranarrative*" to encapsulate "those aspects of the narrative that are beyond the text itself". He writes, "supranarratives are all of those aspects of testimony *except* the spoken words and their overarching meaning (the metanarrative)" (2016, p.209) (italics in the original).

Scholars have devoted much critical attention to the work of Paris-based artist Esther Shalev-Gerz and point to her 2005 installation *Between Listening and Telling: Last Witnesses, Auschwitz 1945-2005* as an exemplar in this regard. Marking the 60th anniversary of the liberation of Auschwitz-Birkenau, the exhibition consisted of 60 newly recorded interviews with survivors living in and around Paris. Lasting between two and nine hours, the interviews could be watched via monitors and headphones set up within the Hôtel de Ville. At the back of the grand exhibition room, the videos of the survivors were projected onto three large-screens with a seven-second time lapse (*fig 13*). Presented "in slow motion, the faces of the survivors filmed in close-up were depicted in silence, their expressions captured

between words, between a question and their articulation of an answer" (Lund, 2015, p.32).

Jacob Lund's analysis of the installation is particularly relevant here, as he avoids, what Hirsch and Sznaider have described as "the increasing currency of the unspeakability trope" (2015, p.403) and instead advances our understanding of the affective potentials of silence. To be clear, he writes, this silence "differs substantially from the sublime aesthetics of silence and of the unpresentable that Jean-François Lyotard" attributes to *Shoah* (that which risks becoming an abstraction, not knowing what it is that cannot be communicated). Rather than a focus only on the text or content of testimony itself, Lund argues that Lanzmann's film "is also emphatically about the time of narration, the very time of enunciation and the very act of testifying". Tracing this within *Between Listening and Telling*, he writes, the "montage of the silent moments of the interviewed survivors is not an endeavour to isolate the silences, but rather to confront them with the words spoken in order to *show* the silences as a decisive part of the process of signification" (2015, p.33) (italics in the original). In his contribution for the written catalogue of Shalev-Gerz's work, Didi-Huberman reinforces the point; "The gaps are really there – not only as absences but as fundamental *gestures*" (2012, p.58) (italics in the original).

Figure 13 – Between Listening and Telling: Last Witnesses, Auschwitz 1945-2005

In acknowledging the formal elements of the video display itself, the time-manipulation of slow motion and use of the close up framing, Lund circles back to what is central to Pinchevski's notion of the "audiovisual unconscious" – the media technology at work. Pincehvski makes plain "it is only with audiovisual media that the shortcoming of words can be documented as they surface from the fragments of traumatic memory" (2014, p.155). Deep memory, he continues "is in fact an offshoot of videotestimony and, by extension, of the audiovisual archive" (2014, p.155). These moments which make up the "audiovisual unconscious" are rich in hermeneutic possibilities that nonetheless gesture to the fundamental ineffability of survivor testimony and the impossibility of comprehension.

3.7.2 Deep Memory

Fundamentally, however, it is this loss or rather, flattening of the "audiovisual unconscious" in *DT* which troubles its most salient critics. Saul *Friedländer* expressed this particular concern early on, an anxiety that the traces of deep memory

will fade – leaving a redemptive restorative common memory in its place (1994, p.254). Pinchevski contends, however, "what is at stake is not the loss of deep memory, but its reification; not the disappearance of memory traces together with their bearers but the coding of such signifiers under fixed signified; not oblivion but objectification" (2019, p.109). Indeed, it has been argued that *DT* turns such instances in testimony into "an operationally and semantically quotable formula". In other words, what was once considered Pinchas' "authentic narrative" performance (Hays, et al., 2021, p.38), is now "overdetermined in the coding of narrative by algorithm" (Pinchevski, 2019, p.109). Langer himself, responded to the project directly, exclaiming, this is not testimony, "this is the craziest thing I have ever seen… Why do we need these holograms?" (Lokting, 2018, [online]). Echoing these concerns, Shenker states, "whether or not we call it 'deep memory' or 'traumatic memory,' Langer, Pinchevski, and Friedländer express concern with tending to and preserving the integrity of disruptive narratives" (2020, p.348).

It should be noted that Presner's work goes some way to address the potential moral affordances of engaging with survivor testimony through computational logics, in his much-cited "ethics of the algorithm" (2016). Proposing a shift from close readings of individual (or popular) testimony to a "democratization" of all videotestimonies in the database, he argues such data structures enable a "distant reading" of overarching patterns, from "the singular to the global" which avoids "canonicity" (pp.197-199). However, as Pinchevski acknowledges, with regards to his Levianisan stance, "Presner pins his hopes on users' engagement, speculating on the possibility of participatory collective indexing and dynamic browsing based on "communities of experience, narrative structure, or even, silences, gaps, and so-called nonindexical content". In turn, this means that overcoming the "calculative

logic" of algorithmic testimony is derived outside of the project itself, it falls to users to "supply the hermeneutical excess" in their approach to testimony to "counteract the definitive categorization". As Pinchevski summarizes, "the alterity of trauma once gleaned on tape is now crowdsourced online" (2019, p.106).

So where does this leave us with Pinchas on screen patiently waiting for the next question? Our worst fears are confirmed as we have seen that the "audiovisual unconscious" is indeed flattened by the data structure and mode of encounter. Furthermore, there is little to be gained in approaching this through Presner's understanding of algorithmic ethics, as we are not engaging with Pinchas' videotestimony (as one of many) in the VHA online digital database from which his study launches. All is not lost, however, as I propose that the "procedural rhetoric" (Bogost, 2006) imposed by the digital database itself, issues symbolic arguments about the limits of understanding that we can arrive at through an embodied and experiential knowing. Put differently, it is not only about the content of Pinchas' testimony or the time of his narration (Lund, 2015), but also about *our gestures* and *our act of witnessing* at a spatiotemporal remove. If the value of "deep memory" has been in its ability to "break the frame", to communicate "the contradiction between the necessity and the impossibility of testimony" (Pinchevski, 2014, p.160), then we should not overlook the transmission involved in performing the database as it affords us the opportunity to the break the frame for ourselves.

3.8 Transmission

Beyond my attempts to pose questions to Pinchas via the microphone or textbox – which do 'fail' to generate appropriate responses as much as they successfully trigger a pre-recorded response by the algorithm – the "rhetorical rupture" has

occurred (Hyde, 2001). As Ronell puts it, “the rush of the interference that produces the gaps and unsettles cognition must be seen as a force that weighs in performatively and must be read. The interruptive moment of interference itself calls for a reading” (2002, p.6). This “interruptive moment” occurs when – through my embodied performance of interviewer at the GUI – I am confronted with a recording of a survivor which, through its design, encourages me to interview Pinchas and simultaneously “resists forms of narrative closure and totality” (Nash, 2022, p.20). In many ways, I feel set up to fail. Referring back to Miles, we can understand the moment of decision arising through the resistance from Pinchas, as the database calls attention to itself, and I become acutely aware of the limited possibilities of interlocution (Miles, 2014, p.80). In other words, “the interval between perception and action (noticing and doing)” once again (as discovered in the previous chapter) arises through the visibility of the media itself.

Advocating for “a phenomenology of the secondary witness’s experience”, Yaeger questions “what happens to the reader or listener as “secondary witness” when she gets stuck in the gap between what is said in testimony and the way a speaking body or written text says it?” (2006, pp. 402-405). Writing about Charlotte Delbo’s work (and oral recordings from the Fortunoff Video Archives), Yaeger argues Delbo’s “figures of speech disrupt this illusion of co-ownership, destroy the reality effects that her intimate address to the reader as “thou” help to create”. She continues, “Just as we are trying hard to bear witness, to come to know by concentrating on the voice of a subject in pain, a simile enters the text like a missile or void” (2006, pp.411-412). Applying her notion of “performed act of estrangements” to “the formal and structural dimensions” in *DT*, the question becomes what happens to the user as digital witness when she gets stuck in the gap between what is said in testimony and

the way the database issues such statements? These moments of rupture, which "marks our nonentry into the place of intimacy" (2006, p.418) are ethically charged because they force us to recognise our inability to fully comprehend traumatic memories. As I have suggested, they also become a moment of moral and ethical decision, as we must decide not to turn away. As Yaeger puts it, "Even as this double defamiliarization feels like a violence of the etiquette of reading and listening, our only choice is to plunge down the precipice and then scramble back again – into the next sentence, the next trial by fire" (2006, p.422).

Thus, the metaphor of the frame breaking here is twofold; on the one hand, the physical frame of the screen breaks in becoming doubly visible, I am not in a videoconference call with Pinchas during the pandemic, but rather interacting with an algorithmic system through the GUI. The second and most important breaking, is the rupture in bearing witness. The very framework for bearing witness as oral history interviewer is fractured, "because the possibility of closure has itself collapsed" (Goodhart,1992, p.215). Crucially, in spite of such revelations, I continue to try. It is my own non-linguistic gestural elements that come to matter most. Despite the fragmented structure of the interview or Pinchas' unwillingness to address me, I continue to pose questions which might move me closer to an understanding. Reinforcing the point, Frosh states this "fissure is necessary because it is the space where moral choice resides" (2018, p.364).

Of course, at some point, upon reaching physical and emotional limits, I have to decide to terminate the interview. Despite feeling frustrated and overwhelmed, I close down my browser after three hours of questioning. This is not dissimilar to the way scholars have written about *Shoah* with "its gruelling duration, the attendant

commitment it demands on its audiences and the enveloping nature of the spectator's encounter with this text" (Langford, 1999, p.29). Indeed, as Felman writes "Lanzmann needs us to sit through ten hours of the film to begin to witness – to begin to have a concrete sense – both of our own ignorance and of the incommensurability of the occurrence". Crucially, she continues, the film is a collection of fragments that do "not yield, even after ten hours of the movie, any possible totality or any possible totalization; the gathering of testimonial incommensurates does not amount either to a generalizable theoretical statement or to a narrative monologic sum" (1991, p.56).

Thus, what is transmitted through *DT* online, is not merely a depository of facts, but rather as Lanzmann sees its "the truth of testimony" which, "lies not in the faithfulness of its representation but in the sense of bewilderment it transmits to the viewer" (Pinchevski, 2014, p.159) and in this case, the user. Put differently, this is a mode of "interruption that is performed in and by mediation" (Pinchevski, 2014, p.65) as one which restores a sense of the ineffability of Holocaust testimony. In response to Shenker's work (in which the word database is notably absent), I argue the computational logics of the database achieve precisely what he advocates for, that is, it tends to and preserves "the integrity of disrupted narratives" (2020, p.348).

Going further, I suggest that a move away from our cultural fixation on "deep memory" and the "audiovisual unconscious" should form part of the "digital turn" in Holocaust memory practice more broadly. If the shift to "the Era of the User" is defined by our responsibility to be active agents in the present, then it cannot fall to the survivors (especially posthumously) to perform their suffering, to give us a glimpse of trauma through their slips, silences, and repetitions.

Once rendered evident through the "audiovisual unconscious" recorded on tape, then, it now falls to us to performatively fail in our attempts to understand in order for such limitations to be communicated. As Pinchevski asserts, it is "precisely in the failure to completely connect, *and in the acknowledgment of the inevitability of that failure*, that technologically mediated communication might enable us ethically" (2014, p.67) (italics in the original).

3.9 Fieldwork on The Forever Project

Before closing, I want to briefly return the discussion to experience of *DT* in the museum context to further tease apart the differences between the on-site and online experience. Lycan and Artstein's audience study (2019) sheds light on the reception and performance of *DT* at both the United States Holocaust Memorial Museum in Washington, DC (USHMM) and the Illinois Holocaust Museum and Education Center in Stokie during 2016 (*fig 14*). While the USHMM installed a booth and encouraged individual visitors to interact directly through a microphone connected to the system, the Illinois museum framed the encounter as a group-led activity that was mediated by a museum docent. Taking a comparative approach, Lycan and Artstein consider interaction logs (containing automatic transcriptions of user utterances) and discover that the system successfully generated more "appropriate on-topic" responses when the docent was present and that their input generated more specific details of Pinchas' story. However, the results also indicate that while more generic keywords and questions were used during the experience at the USHMM (such as 'concentration camp' rather than 'Madjdanek' etc.), it also generated feelings of a more 'interpersonal' encounter between the visitor and the recorded survivor. To demonstrate this, they draw attention to the frequency of the word "us"

used during docent-led experiences in comparison to the word “I” recorded at the USHMM (2019, pp.4-5).

Figure 14 – Students engaging with Pinchas Gutter during a demonstration of Dimensions in Testimony

Using observational methods, my own study of a university group interacting with *The Forever Project* at the National Holocaust Centre and Museum during May 2019 gathered similar results. The audience were invited to first watch a short version (approx. 20 minutes) of Stephen Frank’s testimony (one of the first of ten survivors to be interviewed for the project) before the Q&A session. Displayed within the hall (a former synagogue), Stephen appeared as both a 2D and 3D image, as the audience were given the choice to watch Stephen’s video testimony on the screen above, or to use the 3D glasses to focus the life-size projection of Stephen on the computer monitor in front of them. Several of the students removed their glasses within the first few minutes, choosing instead to watch the video suspended on a screen above the projected image. Whilst all students put the glasses back on for the

Q&A session, this indicated less of an interest in the technological affordances of the visual rendering than the natural language processing functions.

To start the Q&A session the National Holocaust Centre and Museum, docents demonstrated the process by asking Stephen "How are you?". Springing into action from his 'resting pose', Stephen's reply was along the lines of, "Well I am fine, but of course I am sitting in a studio in 2015". Whilst this triggered a heart-felt giggle from the students, it struck me as incredibly significant that the museum would choose to begin with a question which immediately timestamped Stephen and rendered his recording a product of the past. To be clear, this event was taking place in 2019, for Stephen, 2015. This, partnered with the dual display fractured any sense of co-presence and the illusion of a live, immediate face-to-face interaction with a Holocaust survivor (as promised by the promotional materials of these projects).

This seemed to be a secondary concern for the students who appeared more interested in the ability to interact and ask questions. Taking it in turns, the students asked Stephen different (albeit predictable) questions about his life, his experiences, and his family. Familiar with the recorded responses, the museum docent repeated and/or rephrased each of the questions to ensure an appropriate response would be generated by the algorithm. Indeed, in this strictly bounded context, there is a stringent sense of digital "Holocaust Etiquette" (Des Pres, 1988), arguably elicited through what Kidron refers to as an "institutionally orchestrated performance" (2015, p.49). Perhaps it is not surprising, then, that there has been no recorded instances of 15-year-olds fooling around with the *DT* software; Stephen Smith remarks, it's the "Holocaust historians and techies" we need to look out for (2017, [online]).

At the end of the session, the students clapped, corresponding to the reports of visitors thanking the survivor projection and/or waving goodbye (Jackson, 2017, [online]). Richardson's (2021) rhetorical ethnography of audience applause at a 2019 Holocaust Memorial Day ceremony in the UK understands this gesture, following Wetherell (2015), as part of an "affective practice" that is "relatively routine, relatively ordered and prefigured processes which relate to specific social encounters, social actions and social relations". Questioning why the audience continued to clap at certain parts of the ceremony when they had been instructed to withhold their applause, Richardson suggests "affective practices like these are learnt rather than autonomous responses" (2021, p.769). Moreover, in the familiar context of the ceremony hall, listening to testimony, music, and speeches, applause is "socially sanctioned, even encouraged" (Richardson, 2021, p.769). Drawing parallels then, between these two testimonial events both taking place within reverent environments (in this case a former synagogue), it is likely that the students clapped not because they were convinced Stephen could hear them, but rather, as an almost subconscious response, "a kind of encoded bodily memory" (Pinchevski, 2019, p.105), which showed gratitude towards the docents and enthusiasm for the project and the process of the interactive biography more generally.

What is important for our purposes, is that from my own observations in the museum, the docents moderate and mediate the encounter which, not only removes the first-person address, but also negates user agency in the exchange. Worse still, it creates a seamlessness to the experience, which on the one hand demonstrates the technological capabilities, but on the other, prevents the users from registering the fragments, the out-of-synchness, and resistance from the database on and through

their own embodied gestures. Moreover, the tendency for audiences to clap or wave goodbye to the recording may seem trivial, but in fact, they mask the lack of the closure, narrative and linearity that has been so fundamental to my experience of digital witnessing. In other words, these ritualized and "relatively routine" social relations, supported and encouraged by the institution, offer respite for the visitors in that they provide a finality to the encounter, enabling them to feel as though they have completed their experience.

3.10 Witness in the Waiting Room

During my conversations with Pinchas, he refers several times to a metaphor of a pebble. Talking about passing on his story he says, for instance,

> It takes a long, long time. And, you know: a pebble – a very smooth, warm, comforting pebble that you play with. Now, that pebble once was a very rough stone, and it took thousands of years of water dripping on it to create that magnificent, wonderful marble that you are now holding in your hand, and playing with it, and feeling the warmth and…and the comfort. And I would like you to start this kind of way telling my story, trying to be tolerant, trying to teach other people the acceptance of others and change the world in this particular way. And I think it may take a long time, but the world will get … I'm an optimist, I believe the world will get better.
>
> [sic]

In many ways, his metaphor implies the task at hand. It will indeed take a long, long time to process excerpts of his testimony, to ask enough questions, to make sense of

it through my own embodied performance of witness, to return to the database, where he waits for me – in the waiting room – again and again. Perhaps we can understand the database here as offering a form of "rehearsal", a way to "practice listening, to learn how to hear silence, to complete ellipses, and to connect disconnected episodes (Wake, 2013, p.133).

In reference to the Fortunoff Archives located at Yale, Hartman once stated in an interview, "you have to come to the archive to see the entire tape. I think a person should make that effort" (Ballengee, 2003, pp.223-224). As Wake notes, "Hartman would seem to cast the tapes as secular relics and the archive that preserves them as a place of secular pilgrimage, as if the effort expanded to move one's body there is part of the *labor* of being a proper or authentic witness" (2013, pp.127-8) (italics added). It is precisely this attitude of witness, a commitment to the emotional and physical "labor of witnessing" (Wake, 2013, p.138), despite the resistance of the database that finds expression in this version of *DT* online.

While the duty of witnessing the witnesses to a certain extent remains the same, "the third generation" of the media of Holocaust testimony (Pinchevski, 2019, p.89), invites new methods which move us beyond our reliance on survivors and their performances of "deep memory" and make a greater demand on us for active responses. As Hirsch and Spitzer write,

> the listener must hear silence, absence, hesitation, and resistance. She must look and listen, comparing bodily with verbal messages. She must allow the testimony to move, haunt and endanger her; she must allow it to inhabit her, without appropriating or owning it.

(2009, p.402).

If as Pinchevski claims, with *DT* "the embodiment of the witnessee comes to replace that of the [survivor] witness" (2019, p.107) then, the user must compare her own bodily gestures and her own hesitations with her performance of interviewer. Allowing instead the *database* to endanger her, always threatening to overwhelm, as she attempts to create her own relation to the past through a form of embodied knowing.

Part II

Liberating the Witness

4. Dachau from a Distance: Rephotographing *The Liberation*

The image is an act and not a thing (J.P Sartre, 1936)

A recent review of the Dachau Concentration Camp Memorial Site titled 'A MUST SEE' (Tripadvisor, 2020, [online]) contributes to the growing catalogue of responses from visitors and adds to the Memorial's consistent 4 and half star rating. Earning Tripadvisor's *Travellers' Choice* award of 2020, it is clear memorials play an increasingly important role in safeguarding the history of the Holocaust and continue to shape our collective memory practice. To be sure, prior to the COVID-19 pandemic, the Auschwitz-Birkenau Memorial and Museum recorded 2 million 320 thousand visitors in 2019 alone, 170,000 more than the record-breaking numbers of 2018 (Auschwitz.org, 2020, [online]). As the survivor community continues to diminish and new generations begin to learn about this history, the memorial sites are under increasing pressure to enhance the offerings of the former camps and appeal to the younger generation.

Echoing the discussion that began this thesis, then, I remind the reader that as we continue to negotiate our entry into the "the post-witness era" (Schult and Popescu, 2015), institutional projects prioritise visitor participation and experience, operating within the wider shift to a "new museology" (Fraw, 2018, p.194). Beyond Holocaust institutions and educational centres, the memorial sites themselves are also developing new methods for engaging with the past across a variety of multi-media

digital platforms. For example, some Holocaust memorial sites are integrating mobile and tablet applications into their guided tours designed to enhance the visitors' personal encounter with the physical memorial grounds, such as, the *Here: Space for Memory* Augmented Reality (hereafter AR) tablet application at Bergen-Belsen (2015), the Falstad Center's AR *Future Memory App* (2018) as well as Neuengamme's 360-degree photography tablet application which forms part of the *Virtual Holocaust Memoryscapes* Project (2019).

This chapter explores *The Liberation* AR mobile/tablet application at the Dachau Concentration Camp Memorial Site developed in collaboration with start-up company ZAUBAR BR as well as the German public-service broadcaster, Bayerischer Rundfunk (2020). *The Liberation* AR experience is a digital self-guided tour which enables visitors to superimpose thirteen historical photographs over the architecture of the present-day camp. Marking the 75th anniversary, the app provides visitors with a detailed account of the liberation by the 42nd and 45th Infantry Division, as a pre-recorded narrator (via headphones) ushers the visitor through the space and contextualises the remediated archival photographs. Testimonial clips are also embedded within the audio as speakers perform accounts from prisoners, American soldiers, war correspondents and members of the International Red Cross who experienced the event first-hand.

Audio walks of this nature are gaining increasing popularity, particularly in the heritage and museum sectors. Emerging in the last five years, for example, academics have written on *Memento Vienna* (Schellenbacher, 2017), the *Alter Banhof Video Walk* (Bertens, 2019), the *Oshpitzin* AR mobile application (Walden, 2019), the USC Shoah Foundation's *IWalk* (2019), as well as *The Invisible Camp*

audio walk at Gusen (Schult, 2020). Earning the second place Delina-award 2021 (in the category of 'society and lifelong learning') and shortlisted for a PRIX EUROPA Award (in 'digital media'), as well as the Grimme Online Award 2021 (in 'knowledge and education'), *The Liberation* is a critical offering to those who are looking for ways to engage in the memorialisation of the Holocaust, and therefore warrants critical investigation.

Unable to launch during the COVID-19 pandemic, *The Liberation* experience has been made accessible online and can be experienced at home. Due to ongoing travel restrictions and site closures, the following research has been carried out primarily using *The Liberation* online. It also draws from my correspondence with the lead producer, Eva Deinert, and from an official videorecording produced by the memorial of Dr Elisabeth Fink (a member of the research, historical and educational counsel) taking the in-situ tour at Dachau during September 2020. The analysis that follows predominately discusses the smartphone as the digital interface for the main on-site experience, but following on from the preceding chapter, also considers the laptop/desktop GUI (graphical user interface) for the online mode. This research, then, is based on my own experience of *The Liberation* and therefore remains speculative. However, it offers some ruminations about using augmented reality and mixed reality as a form of memory practice and acts as a springboard for larger audience studies moving forward.

Principally, through an in-depth study of this project, I argue that the on-site experience remediates the practice of rephotography, as it invites visitors to physically rewalk and retrace the footsteps of the Allied photographers in 1945. Using their smartphones to reframe the archival images, they are encouraged to

occupy a dual perspective and once again, split-themselves in two. Not limited to this mode of encounter, however, a phenomenological description of my experience of *The Liberation* online illustrates how this version also references a form of rephotography – its reception rather than creation – which encourages a performative and imaginative (Popescu and Schult, 2019) engagement with the liberation archives. To explore this process, I return once again to Paul Frosh's research on Holocaust witnessing and the GUI and locate interactivity within the "regimen of hand-eye-screen relations" (2016, p.351) and argue that the archive should be understood as form of experience, as something actively constructed by the visitor/participant, or in this case digital "user". Crucially, in both the on-site and online version of *The Liberation*, agency emerges at the intersection between the body and the digital as they are invited to actively transform into a mnemonic agent.

In attending to the archive, I suggest that *The Liberation* can work to disrupt and complicate the dominant representation of victims. Put differently, I argue that the on-site experience invites the visitor to re-enact the role of photographing Dachau, not to simulate the trauma of the experience, but rather to consider the conditions within which the archives were constructed and to make the liberation a felt reality from the perspective of the present. Shaped by anxieties over the loss of the eyewitnesses and contemporary desires to return to the archive (Osborne, 2020), the experience urges the visitor to grapple with the photographs and establish their own relation to what remains by reframing and recoding the event in their imaginations.

4.1 The Post-Holocaust Archive

Dora Osborne (2020) introduces the notion of the "post-Holocaust archive", arguing that Holocaust memory practice in Germany is undergoing an "archival turn" or

"return to visual and textual analogue media that now seem to have an archival aura". Crucially, this shift to material memory (photographs, letters etc.,) "indicates how the political and historical archives of National Socialism have become memorial archives that support the performative work of commemoration and memorialization after those who lived through and remember the period are no longer here to influence the process" (2020, pp.4-6). This work calls for the liberation material to be included in the discussion around "memorial archives" and to be recognised as an integral part of the "post-Holocaust archive" more generally (despite Osborne's reservations which I will address below). While I suggest that the introduction of AR marks a new digital phase in Dachau's history – or even the sixth phase, following Marcuse's study of the site (2001) – *The Liberation* also clearly signals a return to archival documents in the way that Osborne outlines. Indeed, she predicts that this kind of memory work in the "post-witness era" (Schult and Popescu, 2015) will increasingly depend on "exterior, media support" (Osborne, 2020, p.9).

Principally, through her study of German memorial, literary, and documentary projects, Osborne discovers that contemporary archive work foregrounds "our belatedness" and asks us "to engage with traumatic memory in its otherness" (2020, pp.173-74). It will become clear in the analysis that follows that *The Liberation* foregrounds this sense of "belatedness" through performative re-enactment. As Lebovic maintains, "re-enactment is a signal of distance, of time out of joint; it marks the absolute inexistence of the past, but also the performative and reconstructive act of opening a place for present reflection and disagreement" (2016, p.267). According to Osborne, the "post-Holocaust archive" reveals another tension highlighted by "Assmann after Freud, in German memory culture namely, between

the desire to see the task of memory available for completion (and thus potentially completed) and available for infinite performance in response to the imperative upon which the contemporary nation is founded" (2020, p.173). I go on to argue that this tension is brought into focus in the very act of *impermanent* smartphone rephotography as a duty that is at always available for completion in the exact instant that it is completed.

4.2 Rephotography

Rephotography, sometimes referred to as "photo point monitoring" (Hall, 2002), "then and now images" (Klett, 2011), "fixed point observation" (Yanai, 2017) or "now and again" images (Lockemann, 2018) describes the practice of physically holding up or digitally superimposing an older photograph (usually in black and white) of a person or place over the present-day scene from the perspective of the original photograph. Often conflated with "repeat photography" (Mcleod, 2015), rephotography emerges from 19th century scientific practices and was a tool largely used by geologists to measure environmental change. Gaining increasing popularity over the last decade, rephotography has enthusiastically been taken up by the arts and humanities to trace cultural changes. The *Rephotographic Survey Project* (Klett, 1977-79), and the related *Third Views* project (Klett, 1997-2000), which were concerned with rephotographing the American West from the vantage point of iconic 19th century photographs, are credited as the first examples of using this technique.

Considering its growing influence on amateur and/or vernacular photography, scholars and practitioners have paid particular attention to the Flickr group, *Looking into The Past* (2009), which, inspired by Michael Hughes' series of "souvenir"

photographs in the 1990s, sees tourists holding up historical images in front of contemporary landmarks and locations. Important for our purposes, World War I and II anniversaries have prompted a whole host of rephotographic projects, including Nick J. Stone's photo-series *Blitz Ghosts* (2011), which superimposes archival images of the German bombing of Norwich onto the city's streetscapes. Most widely discussed in this context are Sergey Larenkov's work *Link to the Past* (2009) which also includes rephotographs of World War II. Beyond these thematic ties, we can also align *The Liberation* with the recent flurry of mobile apps, such as, *Street Museum* (Museum of London, 2010), *Timera* (Webb, 2014), and *Pastport* (Smith et al., 2016), which go one step further in facilitating the act of rephotography through AR and foreground the process as fundamental to its affects. Indeed, Liestøl's work identifies the growing relation between "indirect augmented reality" experiences and the "then-and-now" approach inherent within rephotographic practice (2019, p.198).

Achieved through a variety of presentational methods, photographs can be displayed side-by-side, embedded, split or overlayed (Krell, 2019, pp.79-80). In this case, *The Liberation remediates* rephotography, as the visitor/user does not actually take a picture but digitally layers historical photographs from April 1945 over the contemporary memorial site to create a comparative composite image. More specifically, *The Liberation* references the type of rephotography identified by Krell as "interactive overlay", whereby users "see both the original and rephotographic images simultaneously fading into and emerging from another" (2019, p.80). Beyond a straightforward visual comparison, however, scholars point to rephotography as a "mnemonic practice [which] invents a composite time and place that opens up the possibility for a new modality of memory, a new style of

inhabiting the past, present and future" (Kalin, 2013, p.172). We can understand this new space as emerging from "the temporal disparity" (Baron, 2014, p.11), or rather, the gaps, we identify between the contemporary and historical images.

Whilst practitioners seek to cast rephotography as a distinct genre, Mcleod notes the ongoing conflation of terms and visual methods and calls for a more nuanced definition. Reworking Klett's original statement, Mcleod, Hossler, Itälahti and Martinsson describe rephotography as; "an exploratory, process-oriented form of visual communication" (2015, p.52). Foregrounding the activity of "rephotograph*ing* as an explicitly visual pedagogy: a way of learning through looking at and making images" (McLeod, 2019, p.24) (italics in the original). It is this sense of *doing* rephotography at former sites of Nazi persecution which I wish to unpack in more detail in the next section.

4.2.1 Reframing

Upon beginning the liberation tour at Dachau, the visitor is invited to scan the QR code using their smartphone which enables them to align the monochrome historical photograph with the modern-day scene. Once in focus, the photograph depicts people spilling out of the doors and windows of the two-story building connected to the entrance gate. Introducing the building as *The Jour Haus*, the narrator informs them that this image was taken on April 29 1945, the day the camp was liberated by the American forces (*fig 15*).

Figure 15 – The Liberation, the Jour Haus

Describing the scene, the voice over starts by introducing the Allied personnel,

> The man standing on the wall is General Henning Linden, brigadier general of the 42nd "Rainbow" Infantry Division of the US Army. Just below and in front of him stands a man with a white armband. This is Victor Maurer, a representative from the International Committee of the Red Cross. He arrived in Dachau the day before the liberation is responsible for the peaceful handover of the camp to the American forces.

Indeed, from the outset, the narrator encourages the visitor to form a spatial connection to the liberators by highlighting that they occupy "almost the exact same spot" as the war photographer, or "pictorial reporter" (Zelizer, 1998). According to Lewi and Murray, rephotography is gaining popularity precisely because it can offer an "augmented experience through the actual taking of the photograph form the

point of view and location as someone from the past" (2020, p.403). I argue that the experience of traditionally holding up a physical photograph into the same place it was once taken (and subsequently creating a new image), has important similarities and differences to *The Liberation*, as the visitor digitally projects archival images into the contemporary memorial site.

Holding up their personal mobile phone to *The Jour Haus*, the visitor embodies the role of the photographer (both past and present) as their physical actions mimic those necessary for capturing a photograph. Recalling the discussion on VR and sensorial experience in chapter two, I agree with Popat that it is "the actions involved in reaching out to touch rather than in the achievement of contact that provides the constituting effect" (2015, p.36). Here, I also foreground proprioception and bodily expressions as that which constitutes the practice of digital photography, rather than the actual production of images. To be sure, we engage in the performance of photography whether or not we successfully capture the image intended, whether the photograph appears in focus or even if the smartphone dies and we fail to produce anything at all. In short, the visitor is engaged in a form of photographic practice that requires the same cognitive and physical gestures (aside from clicking the shutter button) as smartphone (re)photography (*Fig 16*).

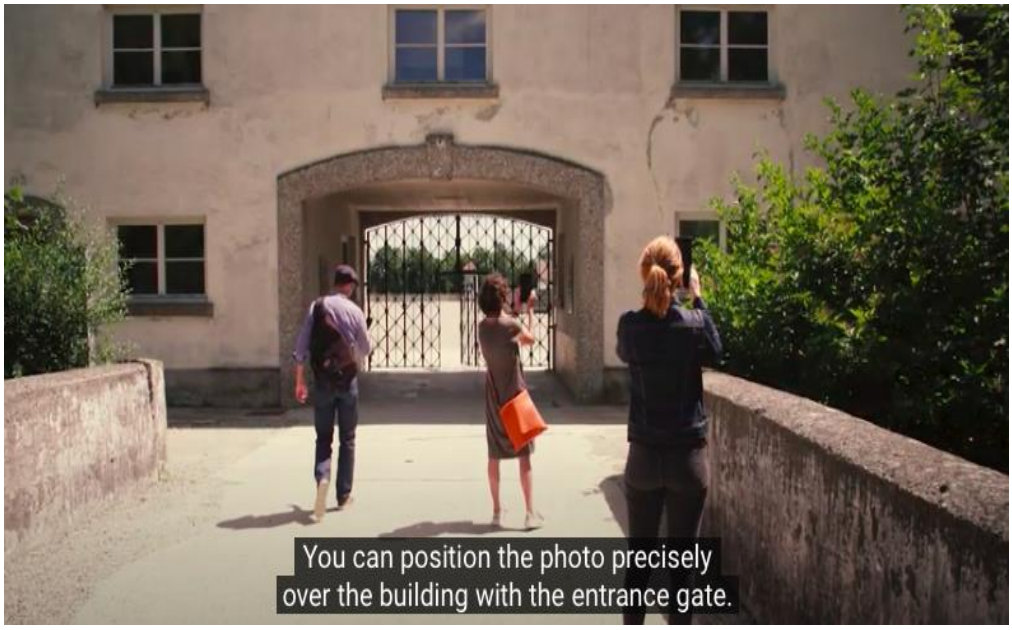

Figure 16 – The Liberation, Dr Elizabeth Fink (far right) reframes the historical image at the Jour Haus.

Although rephotography has a preoccupation with "mundane" everyday experiences (Kalin, 2013, p.171), in *The Liberation* it becomes a critical witnessing apparatus in the same way analogue photography assumed a primordial importance within the camps. Indeed, in her seminal book *Remembering to Forget: Holocaust Memory through The Camera's Eye* (1998), Zelizer explains that upon liberation, the practice of photography critically evolved and took on a greater moral dimension which transformed the "pictorial reporters" into witnesses. In her later work, she also includes those responsible for the "amateur photographic record", the soldiers who "went into battle with [miniature] cameras in their pockets" (2002, p.700). Often copying the aesthetic of the professional pictures, the amateur shots aimed "to construct a visual template that could help individuals take responsibility for what they saw", she confirms, "this was the template necessary for bearing witness" (2002, p.702). She highlights one reporter who "tendered his entire report of Dachau in third person except for the photographs recounting his sighting of the train cars with dead bodies". Zelizer argues that his "shift to first person" reinforces the power

of the photographs as they "muted his professional role" and instead triggered his "role as witness" (1998, p.72). Thus, the liberation photographers, as I refer to them here, includes both the professional "pictorial reporters" as well as the American soldiers who forged visual documentation of Dachau, as an "aid" to recall the events past and to bear witness to them in the future (Zelizer, 2002, p.699). Following this logic, then, I go on to argue that through the "site-specific performance" (Mitschke, 2016) of (re)photograph*ing* Dachau - that is photographing as moral practice - the visitor may also undergo a transition to witness.

4.2.2 (not) taking photographs

Crucially, the visitor is not asked to "inhabit" the memories per se (Kalin, 2013, p.170), but rather take responsibility for re-membering through performance and to incorporate such memories "into the present as active forces" (Kalin, 2013, p.170). Therefore, *not* pressing or clicking the camera button becomes an important part of the performance. To be clear, in my conversation with Eva Deinert, she informs me that it was a deliberate decision to disable the shutter function on the application. The design team were clear from the outset they did not want to encourage students to use their phones (or ipads) as a camera in the space, (not only because tourist photography is always already prevalent) but because they wanted the students to focus on uncovering the archival images already taken. As Reynolds argues "picture taking plays such a ritualistic role in tourism, so much so that the choice *not* to photograph something can be as deliberate as the choice to do so" (2018, p.71) (italics in the original).

Beyond this, I argue below that *dis*allowing such actions has a poetic function and is necessary for creating the conditions for digital Holocaust witnessing here.

Notwithstanding the important emerging scholarship on this topic, with its particular focus on selfies (Dalziel, 2016; Zalewska, 2017; Magilow, 2021) as opening up the possibilities of "self-witnessing" (Ebbrecht-Hartmann and Henig, 2021), this chapter argues that in this particular orientation – the invitation to enact the role of the liberation photographers – it is fundamental that the visitor does not capture their own photographs. Marking a departure from amateur and/or vernacular rephotography, then, the disabling of the shutter function signals the limits of actually taking "imaginary possession" of memories (Sontag, 1973) (that is to subsume the alterity of the other through overidentification).

As Reynolds indicates "pressing the shutter button is a constant that bridges the experience of travel and home life", he continues, "it lets tourists extend their travel experience beyond the period of the tour, easing the transition" back into their routine (2018, p.72). Such smooth transitions run counter to the designers' intentions, as Deinert expressed that it is critical that by the end of the tour students and visitors to feel that they are somewhat abruptly leaving the space behind, that the camp inhabitants are left "sitting there". Indeed, as we shall see, the tour resists our urges for narrative closure and totality in a similar way to *Dimensions in Testimony* explored above. Thus, I argue that not completing the photographic process resists the "the illusion that the shutter stamps an experience with inalterable finality" (Baer, 2002, p.84). Instead, its absence may actually enable a more fluid experience across and inbetween temporal planes, if, as Solomon-Godeau suggests, the click is like a "miniature guillotine that marks a moment of dislocation between the past and the present" (2004, pp.61-64).

This performance of what I am calling *impermanent* smartphone rephotography then, amplifies the liminality of the experience and enables visitors to "become part of, and to some extent responsible for, a living chain that extends across time and is not foreclosed by the shutter" (Pepperell, 2004, p.422), it is a mode of digital witnessing that is available for continuous performance. In this way, it speaks to contradictory desires to see "the penance of remembering to be performed repeatedly *and* for each iteration of this task to be completed, that is for the duty to be done" (Osborne, 2020, p.173). Sure enough, Schult discusses the audio walk at Gusen (a subcamp of Mauthausen concentration camp) in these terms, claiming that "although the audio walk is a recording, it is like a theatre play in that it is potentially repeatable. Each time one takes the walk, it is activated and performed anew" (2020, p.9).

4.2.3 Rewalking

The witnessing dimension to the performance of rephotography in *The Liberation* experience is not only produced through the reframing of images in situ, but also physically rewalking and retracing the footsteps of the liberating forces as part of an audio tour. The *March of the Living* programme discussed within chapter two is an illustrative example of walking as a form of memorialisation, as participants march down the 3-kilometre path leading from Auschwitz to Birkenau on *Yom HaShoah*. Labelling the participants at Gusen, "walkers", Schult also underscores the importance of physically moving through the landscape as the audio plays. Moreover, Cole has noted the "language of wandering" that characterises tourism to the camps more widely, referring to a slow pace of walking in an attempt to somehow better understand the victims' experiences (2017, p.241).

Richard S. White's aforementioned multi-media arts project *Forced Walks* offers a particularly rich example of walking as mnemonic practice. The first iteration, *Honouring Esther* (2015-2017), was co-hosted by Lorna Brunstein (Esther Brunstein's daughter) and invited participants to walk the route of a Nazi Death March. Mapping "the route Esther had survived, digitally transposed to the UK, and subsequently returned and retraced in its original location, in Germany" (2021, p.3), the project comprised of multiple trips in various locations, taken by members of the public as well as by the second and third generation of Holocaust witnesses, liberators and White suspects, grandchildren of perpetrators (2021, p.4). "Walkers" engaged with digitalised images and audio using Ipads during the experience and others were invited to participate online via a website (which followed the journeys in real time). To remind the reader this is what White calls, "walking in witness" (2021, p.10), an understanding of walking as a "rich sensory experience" and form of embodied knowing (2021, p.6).

Kalin also claims that walking is integral to the practice of rephotography, as he draws on De Certeau's "rhetoric of walking" (1984) to describe how walking "turns space into a persuasive performance that affirms, suspects, tries out, transgresses, respects, etc. the trajectories it 'speaks'". He continues, "walking cannot be reduced to graphic trails because walking relies upon style", an "individual's fundamental way of being in the world" (Kalin, 2013, pp.175-176). Thus, while *The Liberation* encourages visitors to retrace the path of the liberators who came before them, the visitor, by virtue of their own unique movements (and interaction with the device), remains conscious of their identity and own subjectivity. This echoes the dual witnessing position established in *The Last Goodbye*, whereby the user

imaginatively “split themselves in two”, enabling her to feel embodied within the VR experience without suspending her “sense of spatial and temporal distance” from their life world (Frosh, 2007, p.273).

Adopting Mitschke’s application of the term “site-specific” within the context of visiting former concentration camps, it follows that “the performance itself is both inspired by and responsive to the environment in which it takes place” (2016, p.229). As we have seen with *The Last Goodbye,* Holocaust landscapes are inherently “liminal” (Pastor and Kent, 2020), often referred to as “traumascapes” (Tumarkin, 2005), “memoryscapes” and/or “dark sites” in which violence and death has occurred (Miles, 2002; Sharpley, 2005; Lenon, 2018). Foregrounded as “a state of in-between-ness”, this conceptualisation of liminality, as used by van Gennep’s (1909; 1960), “may have derived from the Latin *limes* which denotes ‘threshold’. It might also have come from the Latin *limen*, meaning ‘boundary’ or ‘limit’. Indeed, as Wels, Waal, Spiegel and Kamsteeg point out, ‘the concept has clear connotations with marginality and margins, both geographical and sociocultural” (2011, p.2).

Agreeing with Priosise (2003) that the concept of liminality is critical to the museum environment, Pastor and Kent’s research discusses how (German) Holocaust memorial sites invite visitors to “step out of their daily routine and encounter a highly symbolic environment through a guided experience” (2020, p.252). Advancing upon recent studies which seek to crystalise the relationship between liminality and tourism, it is clear that AR attempts to amplify the “transitory experience” of visiting Dachau (Bristow and Jenkins, 2022), as the space between then and now is “materialised as a gap between different media – the remediated content on the mobile device and the physical, lived environment” (Walden, 2019,

p.183). As Walden puts it, “a space opens up between the past and present into which their body is plunged and they become part of an assemblage of materials communicating across different temporal planes” (2019, p.181).

Indeed, Walden’s work on the *Oshpitzin* AR mobile application is instructive here, as she argues that the user creates a hypermediated environment that exists “*inbetween*” temporal planes (Walden, 2019, p.183) (italics in the original). We can compare this notion of an “inbetween” space to much of the literature on rephotography, such as, Kalin’s “ontological montage” (2013, p.170), Munteán’s “time-bridge” (2015, p.118), and Krell’s theory of a “temporal drift” (2019, p.84). These works, then, all point to rephotography as an experience of temporality where the layers of the past and present are once distinct and entangled, causing the past to appear uncannily in the present, a discussion I will return to later. Thus, rephotography is a particularly useful framework for this experience, as it is a fundamentally liminal practice, which asks the rephotographer to embody the position of someone from the past in the present and “oscillate between the perspectives from which [they] look” (Kalin, 2013, p.174).

Pastor’s and Kent’s 2020 ethnographic study on visitor experience adds further insight and demonstrates that audio walking tours “can create a form of ‘embodied listening’” (p.267). Comparable with the participant responses recorded for *Honouring Esther*, White argues walking “generated a sensitivity to the sounds of the voices of the witnesses encountered as well as the content of their testimony” (2021, p.16). Indeed, Schult’s analysis of *The Invisible Camp* reminds us not to overlook the importance of the soundscape, or what she terms, the “multi-vocal memory-patch-work”. Picking apart the audible framework, Schult disentangles the

narrator and the acoustics from the “multitude of voices” (2020, p.9) and dedicates sections to dealing with them individually. While *The Liberation*’s treatment of oral testimony is arguably less sophisticated, as the recordings lack the richness of the different dialects and languages Schult praises, it nonetheless, presents a mosaic of voices from liberators, reporters and survivors and encourages the visitor to attentively listen to navigate the “real and imagined time and space” (Schult, 2020, p.9). As Pastor and Kent’s study reports, visitors “gain a sense of complexity” from hearing fragments of multiple perspectives (2020, p.268). Writing about this within the *Here: Space for Memory* project, Walden goes further and argues that these “fleeting” encounters with various witness voices helps us to resist identification with victims and in this case, liberators, which she argues, following Van Alphen (2002), can “alleviate us of ethical responsibility” (Walden, 2019, p.208).

Considering these three elements together, then, the next part takes a closer look at how reframing, rewalking and listening can encourage the visitor to adopt the attitude of the (re)photographic witness. Of course, these observations raise questions about the desktop version of the tour and the ramifications of transferring the experience online, which will be addressed in the final part of this chapter.

4.3 Rephotograph*ing* the Liberation

Returning to the tour, the visitor, still standing at the *Jour Haus*, is informed by the narrator that prior to the handover, and before advancing into the camp itself, the Americans first discovered a goods train full of corpses. Diverting the visitor away from the entrance gate, they are instructed to walk further down the pathway, as the Americans once did, to arrive at stop number two. Calling the narrator at Gusen,

"the supporting voice", Schult understands their role in guiding the visitor through the experience, positioning them as an active "performer" in the present tense, rather than merely a "voyeur". Indeed, in both case studies, the female narrators use deictic markers such as "you" and "now" and phrases such as "come walk with me" or "let's take a closer look". Through this method of articulation, "the voice sets the tone – thematically, and in what it demands from the viewer: a willingness to engage, to listen in, to picture history" (2020, p.20).

Upon reaching stop number two, the visitor projects a historical photograph of the train onto the empty pathway before them. As is the case with much rephotographic work, the older image stands out predominantly because it is grainy and black and white. While the black and white quality of historical images is often perceived as a mark of authenticity, in *The Liberation* onsite experience, it plays a more important role in the digital montage. Indeed, as will be discussed below in the online format, the lack of colour "*frames* it spatially and temporally, making its separate objecthood very clear, revealing rather than glossing-over the temporal disjuncture between two scenes" (Schofield, 2018, p.72).

Here, the narrator introduces the first witness testimony from (an actor's impersonation of) 20-year-old William Cowling, 1st Lieutenant of the 42nd Division. An ominous soundtrack begins with Cowling's testimony and increases in volume as he describes his first sighting of the dead bodies. Reminiscent of a glass harp, the soundtrack fades in and out and is inflected with dissonant noises and a quickening drum. Echoing the tropes of a cinematic flashback, the soundtrack has a dreamlike quality, adding yet another liminal dimension and signalling Cowling's "subjective modality" (Gabriel, 2013) as he recalls his experiences. As the smartphone reveals

the crime scene, the visitor can now see (albeit only a glimpse of) the victims described by Cowling in a space outside of the camp, that, aside from the contemporary memorial sign, is now completely devoid of evidence. Arguably, a detour to a critical "microsite" (Cole, 2013) that would have otherwise been overlooked, the visitor is encouraged to recognise the importance of listening to the audio and faithfully following the trajectory of the liberation photographers to focus their rephotographic work as a form of Holocaust memory practice.

The acoustic backdrop enhances and underscores the emotional quality of the testimony, drawing attention to this specific moment as the first shocking discovery made by the soldiers. To be sure, we have already heard of the reporter who switched to first person upon being confronted with a photograph of this exact scene at Dachau which "triggered his role as witness" (Zelizer, 1998, p.72). Carefully woven into the narrative throughout the tour, then, these "disturbing tones admonish us to be observant" (Schult, 2020, p.27) and have the capacity to "trigger our imagination to visualise the things heard" (Schult, 2020, p.18). It is worth comparing this wide shot of the train to Lee Miller's photographs of soldiers peering at the corpses and the close ups of bodies from *within* the boxcar itself. While some of Miller's photographs are included later in the tour, it is a smart decision to cast aside her famous image of "the death train" in favour of a less explicit and traumatic depiction of the scene. This demands a heightened level of cognitive engagement with the app, as the visitor must attend to the gaps between image and audio to envision the details described by Cowling. Once again, the imagination becomes the central conduit for post-Holocaust memory practice, affording the visitor more critical agency, while at the same time, reinforcing the distance inherent to this form of archive work.

We can compare this to one of Baer's case studies into "retrospective" (Schult, 2020, p.24) or "belated" witnessing in which he discusses Mikael Levin's 1977 photography project *War Story* (which includes examples of analogue rephotography), as he reframes and retraces the footsteps of his father, Meyer Levin, one of the first war correspondents to enter the camps upon liberation. Acknowledging that Meyer Levin, like many others, kept a "defensive distance" from the inmates by taking a pragmatic approach to his professional duties, Baer singles him out as a "secondary witness" (Baer, 2002, p.91) who manged to recognise early on, what has later been termed the "aporia of witnessing" (Hirsch and Spitzer, 2009), the necessity and impossibility of bearing witness. In analysing *War Story*, Baer demonstrates how Mikael's (re)photography actually "refuses to simply identify with his father" as to have done so would have "obscured Meyer Levin's insight that a fundamental aspect of the war experience remains inaccessible to such processes of empathic identification" (2002, p.97).

As Baer reminds us, a phenomenological approach "does not suggest that we can comprehend a catastrophic event from the position of those who took the pictures or are depicted in them" (Baer, 2010, p.181) but rather, "testify to the experience of the events and the gesture of witnessing" (Lund, 2015, p.31). Thus, working to reread, recode and recover the archive in the process. This, to remind the reader, is fundamental to an understanding of digital Holocaust witnessing as moving away from our attachment to absolute truth (inaccessible knowledge) and towards an understanding of the witness who engages in the act of memory on a different level – through affect.

4.4 Affective Archive

Cifor contends, “scholars in history have begun to examine the *affective* power of archival records” over their evidentiary value (2016, p.11). This is of course not new, Didi-Huberman has been calling for a phenomenological engagement with the Holocaust visual archive for almost two decades, warning that the rhetoric of the “unrepresentable” and “unimaginable” is reinforced when we “ask too much or too little of the image”: that is, when we ask the image to document and show “the whole truth”, (an impossible task which leads to the dismissal of images altogether) or ask too little, by “relegating them to the sphere of the *document*” and severing “them from their phenomenology, from their specificity, and from their very substance” (2003, pp.32-33). Osborne (2020) echoes Didi-Huberman and agrees that we must pay attention to the “nondocumentary weight”, that is their traces of the event, their phenomenology – “everything that made them an *event* (a process, a job, physical contact)” (Didi-Huberman, 2008, pp.34-37).

The AR application foregrounds the liberation in this context, as it asks the visitor to embody the role of the original photographers and retrace their footsteps as a kind of moral duty. In so doing, they revivify the Holocaust landscape and make critical connections between the remediated historical photographs, audio testimony, and the contemporary memorial site before them. Returning once more to Lund’s analysis of Esther Shalev-Gerz testimonial art installations (work subsequently reviewed and applauded by Didi-Huberman (2012, p.58)), *The Liberation* can also be understood as a form of “testifying to the experience of the events and the gesture

of witnessing and actualizing the remnants of the events" in the process (Lund, 2015, p.31).

Osborne, however, cautions against the atrocity images within the visual archives of the liberation and argues that they lead us to "focus on the status of victims as just, and only victims". Going further, she contends that such traumatic photographs "displace" important collections such as Henryk Ross' images in the Lodz Ghetto as well as the Oneg Shabbat Archives (overseen by Emanuel Ringelblum) in the Warsaw Ghetto, which both complicate the representation of victims by showing moments of autonomy, dignity, and happiness (Osborne, 2020, p.38). Crucially, I seek to demonstrate that despite the plethora of post-war atrocity images produced during the liberation of the camps, the app avoids explicit visuals and instead remediates photographs, that by Sharon Oster's description, presents a more "obscure" (2021, p.54) representation of the inmates as they reveal their individuality and humanity.

It proves useful to extend Didi-Huberman's analysis of the four Auschwitz photographs to the images presented in *The Liberation* to recognise that "in spite of" the trauma (inflicted upon both the prisoners and liberators), these images were captured "as a fragment of truth" intended for an audience in post-war culture and "in return we must contemplate them, take them on, and try to comprehend them" (Didi-Huberman, 2013, p.3). Moreover, Didi-Huberman's work, *Opening the Camps, Closing the Eyes* (2011) asks us to perform "the double task of making these [liberation] images readable in making their very construction visible" (p.91). He continues, this would mean to "re-situate, to re-contextualise these images within a different kind of *montage*, with a different kind of text, for example, the accounts of

survivors themselves as they speak of what the opening of their camp meant for them". Prisoners, he states, "have meticulously placed events in time, something which should form our point of departure, the platform from which we should view archives of this period" (2011, p.93-94) (italics in the original). By connecting these images to a variety of complimentary and at times, contradictory verbal accounts, then, *The Liberation* encourages the visitor to place the images in time and space. In order to do this, as will be explored, the visitor/user must (once again) *virtually* enter into a new space and time where layers of the past, present and future are enmeshed and entangled across socio-technical planes.

While I label the dominant witnessing frame *rephotographic*, (as it captures the central act of tracing and reframing past images in the same place from the perspective of the present), it is important to recognise that visitors, as members of the post-generation, are always already defined by a sense of belatedness, as they visit the site 75 years after the event has occurred. Nor can it be overlooked that the historical photographs themselves turn 'the viewer into a late-comer at the depicted site' by "virtue of the medium" (Baer, 2002, p.181) and by extension, their subsequent remediation. One could go further and suggest that the very event of liberation - as a period that technically followed the genocidal event – is itself indicative of the limits of accessing the Nazi past. When I talk about the past as "sheet(s) of time" (Walden, 2019, p.183) within *The Liberation* experience, then, I am referring only as far back as the end of the War in 1945. The end is the point of departure for the visitor and in this way, Dachau-as-concentration-camp is never truly on offer. Indeed, liberation photographer, Meyer Levin, makes plain that "empathetic identification" was impossible, that his witnessing was secondary – already late despite "arriving first" (Baer, 2002, p.90) – and thus, any attempt to

witness through these photographs today will always be defined by a double distance and a double belatedness. Thus, the very language through which I discuss digital witnessing here is characterised by backward recall, consider the prefix re-: re-member, re-turn, re-instate, re-inscribe, re-trace, re-enact, re-photography.

To be clear from the outset, this process is not about 'roleplaying' the events of the Holocaust (as cautioned against by the International Holocaust Remembrance Alliance) but about re-performing the role of the first-hand witness to render the gestures of witnessing present through a form of experiential and embodied knowing. As Vanessa Agnew attests, "embodying the role through disciplining the body is not just good method acting; it is considered a means of knowing history from the inside" (2004, p.331).

4.4.1 Gateway

After leaving the site of the train, the visitor is asked to return once again to the entrance gate, now in closer proximity. Ensuring complete transparency, the visitor is told that the photograph of a group of inmates clutching to the inside of the gate was captured *after* the liberation itself. While these disclaimers are hardly surprising given the contemporary German context in which the project is produced (a memory culture obsessed with historical accuracy), it seems significant that when the time comes to finally enter the camp, the visitor is presented with images of *survivors* (the importance of this will be discussed further below).

Countering this image, Cowling's testimony no longer aligns with the rephotographic work, as he recounts that "not a soul was in sight" as they advanced into the camp, and only a corpse lay in front of the gate itself. These two

perspectives fracture and splinter the past as a singular plane of time and ask the visitor to navigate multiple layers of time simultaneously, something Schult also highlights in the audio walk at Gusen (2020, p.16).

To be clear, the visitor is presented with three overlapping accounts of the entrance gate, that is, the approach into the gate, the liberated prisoners from the inside, and the contemporary memorial site – potentially occupied by tourists taking their own photographs (*fig 17*). In fact, in our correspondence, Deinert and I discussed the likelihood of this occurring as a potentially provocative and highly charged moment of interference. Indeed, I speculate that this would have the potential to disrupt the experience (in a similar way to the case studies explored above) as waiting to enter the camp behind the tourists taking photographs would not only literally disrupt the flow of the experience but also bring the technology (back) into focus.

Figure 17 – The Liberation, the entrance gate into Dachau

Going further with this hypothesis, there is also the potential that the user will hold up their mobile device to the gate (recall *fig* 16) superimposing the prisoners over top of the tourists who occupy the frame in the present. In this way, it clearly has the potential to heighten our awareness of the contradistinction between the acts of photographing and *re*photographing (and not photographing) and the personal moral implications therein.

Understood in these terms, it is perhaps not a stretch to read *The Liberation* as a kind (unintentional) inverse of the highly contested *Yolocaust* project created by Shahak Shapira in 2017 (see Szewczak-Harris, 2017; Frosh, 2019; Buchenhorst, 2021). Shapira, an Israeli artist living in Berlin, superimposed selfies from the Holocaust Memorial in Berlin over documentary photographs from the camps. In essence, Shapira combined images of tourists jumping at the Berlin memorial over images of emaciated corpses in the camps to shock the viewer and as some have argued, shame the tourists for apparently not respecting the seriousness of the topic or memory of the victims, invoking Des Pres' principles for (digital) "Holocaust etiquette" (1988). Of course, in *The Liberation*, the idea is to superimpose the archival images of the inhabitants of the camp back into the contemporary memorial site, employing similar methods for different ends. It is in potential moments of friction between the app-users and selfie-taking tourists that the comparison becomes most stark.

Most importantly for our purposes, it is also in such instances, the "moment between noticing and doing" (Miles, 2014) which will present the viewer with a choice. They must choose to either continue, stop or pause the tour, (and therefore close down/ turn away from the archive) in order to capture their own photograph of the gate. It is a moment which has the potential to invoke a high level of self-reflexivity about

their own approaches to memory work and to more deeply consider what these (archival) photographs mean to them.

4.4.2 Into the camp

In any case, the visitor becomes increasingly reliant on their imagination to manage the different perspectives and to move forward into the camp. Indeed, Didi-Huberman's work on the liberation archives warrants careful consideration of temporality here, foregrounding the liminality of the event in both time and space, he writes,

> If the military films of the camps' liberation obliterate something, it is firstly, and inevitably, the passage of time: a camp is not opened like a door; prisoners are not released from a camp like birds liberated from a cage. These films open the eyes to an *inventory of the space*, they make readable the army's response to the victims' situation, but also to that of the perpetrators when they are recognized and arrested, and to that of the citizens of the neighbouring village when they are forced to come and see what they still denied having known about, etc. But these films were not shot, edited or shown to make readable the paradoxical *time zone* that they nonetheless document, that is, the experience of a camp in the process of opening.
>
> (2011, p.93) (italics in the original)

McManus' study (2015) (which closely aligns with the app's audio script) indicates the particularly complex "*time zone"* and difficult nature of the liberation at Dachau

in comparison to the opening of the other German camps. Highlighting that the power dynamics in the camp were in a continual state of flux, he shows how the debate between the veterans of the 42nd and 45th infantry divisions over which unit reached Dachau first (a debate later described by survivor, Arthur Haulot as "ridiculous"), demonstrates the "fluid and confusing" nature of the approach, as separate military units reached different sides of the compound almost simultaneously (McManus, 2015, p.92) (italics in the original). The complete lack of communication between these units meant battle continued between the American and German soldiers at the same time as the surrender of the camp on the west side (McManus, 2015, p.85). McManus goes further to problematise the "reprisal killings", or as he describes it, the "massacre" of German SS guards by American soldiers, and the lack of intervention in the revenge killings carried out by the liberated inmates despite the Germans newly protected status as POWs. Furthermore, his research documents how liberated inmates suffered "electrocution on the collapsing fence" in trying to escape the camp and those who ran towards the main entrance gate were (for their own sake) forced back inside by their rescuers (2015, pp.91-117), demonstrating the difficultly inherent in the experience of the event itself. Indeed, these anecdotes reinforce the very liminality of the camp, or what Giorgio Agamben defines as a "space of exception" (cited in Didi-Huberman, 2011, p.91), in which the blurring of boundaries between imprisonment and freedom, liberator and perpetrator, life and death, became amplified.

On their entry into the camp, the visitor projects various historical photographs of liberated prisoners which appear in the large expanse of the cement square (the main assembly point). In "reactivating the hidden past into the present" (Walden, 2019, p.183) they can see some inmates celebrating joyously and others too weak to

respond. The tour however, resists simulating “the chaos of these frenetic moments” (McManus, 2015, p.85) and employs the narrator as a consistent guiding voice. Beyond the obvious ethical implications, the narrator here works to not only uphold a sense of order but also marks a point of distance from the events as they unfold. Nonetheless, the app presents a series of images and testimonies out of sync, which speaks to a multitude of experiences including those who joined in with the pandemonium in the main square, those who heard gunfire and were too fearful and/or weak to leave the barracks, those who witnessed the killing of the guards, as well as those who were celebrating joyously behind the barbed wire.

The tour goes further to also acknowledge the often-marginalised experiences of women and includes an audio account from (a female impersonator of) survivor, Dr Ella Lingens, noting that almost 300 women were among the 33,000 liberated prisoners (although housed in Dachau’s satellite camps). This becomes a particularly significant moment in the experience if we recall chapter one which noted the difficulty that sound posed to the Allied film units upon liberation, leading not only to mistranslations through dubbing in English but also the displacement of womens’ voices with male speakers (Keilbach, 2016, p.207). To reinforce the point about lack of representation, we can turn to Olin’s work, which notes that in *Shoah*, female voices were mostly limited to bystanders and only four Jewish women speak briefly within the entirety of Lanzmann’s film (1997, p.5).

The visitor, then, by reframing, rewalking and listening, is encouraged to piece together, to “gather and decode” (Didi-Huberman, 2011, p.115) the photographs and fragments of testimony, to make sense of these accounts temporally as well as in relation to the site’s geography. As Didi-Huberman asserts, we must look upon these

“terrible archives whilst continuously making the testimonies left to us by survivors themselves heard – ones which speak of this moment that at the same was so decisive and so complex”. In the process of performing this kind of memory work, these images may possibly be “‘read’ or placed in time, reunited, even if not entirely, with the experience itself” (Didi-Huberman, 2011, p.93).

It is worth stressing, then, that the app reinforces the importance of rewalking in the tracks of the original photographers to such an extent, that by the time the visitor passes through the gates, they are already 10 minutes into an (approximately) 40-minute tour. Even Laura Levitt (visiting in a professional research capacity) writes of how she was so “eager to enter the gates of the [Sachsenhausen] camp” that she decided to forgo the museum (2019, p.639). In this way, we could understand the visitor’s prolonged entry (or belated entry) into the camp as committing to this approach to memory work. That is, attempting to reinstate the temporality of the images by following the liberators tracks over their own path, which, guided by both desire and/or common sense, would inevitably see them crossing the threshold in a much quicker timespan. Such delay is coincidentally reflected in my writing as the reader is also half-way through the chapter before ‘entering’ into the camp through discussion. In the second half of this chapter, then, I will devote attention to what Kalin refers to as “hauntography” (2013) before moving onto an analysis of the home-mode version of *The Liberation* app.

4.6 Hauntography: The Grey Zone

Schofield’s research (2018) on rephotography goes further to foreground the embodied acts of both rewalking and reframing as a kind of “ritual” (p.64). As he retraces Godfrey Bingley’s routes across Leeds he reports; “I began to get the

feeling, while wandering the city, that these were not my own movements – I was walking in the footsteps of someone else, the footsteps of a wandering ghost" (2018, p.96). Krell echoes this sensation in her work aptly titled *(Un)certain Ghosts* (2019), as her participants repeatedly acknowledge this sense of haunting brought about by rewalking and reframing through their own performances of rephotography (p.84). Indeed, if the original photographer and the people and places who have disappeared are conceived of as ghostly in Krell's work on Lee Miller's war photography in St Malo, it seems logical this sense of spectral haunting would extend to liberation photographs of the camps, particularly, as Lee Miller's images of Dachau are also included in *The Liberation*. In fact, one of the few visitor responses available at the time of writing, reads; "being on site and experiencing the historical AR content overlaid with the real-life location is both eerie and thought-provoking. Added a whole new dimension to my visit I never expected" (Googleplay, 2021, [online]).

This spectrality leads Sorrel (2010) and Stone (2014) to describe rephotography as "ghosting". Advancing upon Derrida's Hauntology, Kalin astutely renames it "Hauntography" (2013, p.176). He discovers that, "rephotography has a hauntological concern with persistence", shifting attention "away from questions of direct presence or absence and to the evocative power of present absences and absent presences" (2013, p.176). Although an in-depth discussion on "the spectral tun" (Blanco and Peeren, 2013; Dziuban, 2019) is beyond the scope of this chapter, these ideas are particularly pertinent in relation to Holocaust memory discourse, that which is bound up in notions of the past as phantom that continually haunts the present. Elsewhere, for example, I draw on Derrida's "cryptonymy" (1986) to demonstrate how the Holocaust continues to haunt cinematic works (Marrison and Morris, 2019). In trying to define this notion of spectrality in (re)photography, "the

seemingly immaterial trace of some past referent, appearing uncannily in the present" (Schofield, 2018, p.16), Derrida (1991) offers the following:

> I have the impression now that the best paradigm for the trace is not, as certain people have believed… the hunter's tracks, the furrow, the line in the sand, the wake in the sea, the love of the footsteps for the footprint, but *ash* (that which remains without remaining from the Holocaust, from the burned offering, the incense of incendiary).
>
> (p.43) (italics in the original)

In light of the above, I argue that it is not *only* the ghosts of the photographers which create this sense of haunting, but rather the trace of the events, the gestures of witnessing within the archival remains. Indeed, we can turn to Didi-Huberman's notion of the "lacuna image" as "a *trace-image* and a *disappearance-image* at the same time. Something remains that is not the thing, but a scrap of its resemblance" (2003, p.167) (italics in the original). Appearing here as mediated projections inside the contemporary memorial, these images "delineate the fragile place of a fleeting encounter between then and now, between there and here, between the invisible and the visible", they are as Chaouat puts it, "an irrefutable if fleeting coming forth of the past despite its having already receded" (2006, pp.90-91). In reinforcing this point, Osborne also writes that, returning to the images is a "haunted" form of memory work, for "while the archive testifies to the event, the origin, the instant, it also withdraws from it in the very moment that it makes re-representation possible" (2020, p.25). It is through this understanding of archival images as offering only "glimpses or flashes of unexpected revelations and insights" (Cauwer and Smith,

2018, p.4) that leads Didi-Huberman to call for photographs to be put into motion, as “montage will at least have created the mnemonic conditions for these ever so *fleeting* yet pregnant images” (2011, p.170) (italics in the original).

The sixth stop of the tour is particularly significant as they are confronted by the latter, a group of malnourished prisoners who, we are told, are “holding onto each other for support” (*fig 18*). The narrator introduces this group as *Muselmänner,* those prisoners who were “closer to death than life”, or as they are often referred to, “the living dead”.

Figure 18 – The Liberation, the narrator introduces the prisoners as Muselmänner

Taking issue with its ubiquitous usage in (academic) literature, Oster challenges the central notion that *Muselmann* is a label used to “designate a distinct group” of “near-dead prisoners beyond humanity” (2021, pp.40-46). Instead, she argues that the term is a “misnomer, a simplification of what was actually a heterogenous phenomenon that many survivors experienced” (2021, p.42). Most prominently, she

highlights nuances in testimonial accounts in which survivors – including Primo Levi whose writing (1989) arguably launches the dominant understanding of *Muselmänner* as 'other' – refers to themselves as a one-time *Muselmann* and point to it as a "reversable condition" (2021, p.62).

For our purposes, Oster's study is useful as she acknowledges "the continuity between the phenomenon of *Muselmänner* in Auschwitz during the war, and that of survivors who were photographed by U.S Army Signal Corps members in German and Austrian camps immediately upon liberation" (2021, p.41). Indeed, Oster concludes, "the *Muselmann* figures at once the other, *and* the survivor's own shadowy 'Auschwitz double,' an impossible metaphor of living death, and thus for the very impossibility of truly 'surviving' such a place" (2021, p.62) (italics in the original). Advancing from the works of both Didi-Huberman and Baer, we can argue, then, that the gestures of witnessing (by both the liberation photographers and the former prisoners) become "shadowy double[s]", "mechanically recorded" (Baer, 2002, p.8) and thus, trapped by the camera as traces that continues to haunt the photographic record. It is worth pointing out that these writers are referring to the capabilities of the technology itself as that which makes witnessing possible (recall chapter one).

We can pause to consider Marc De Kesel's writing (2010) on the *Sonderkommando* photographers, for whom images had a "deconstructive power in their inherently outside position", enabling the prisoners inside to "realise – if only for one abstract and imaginary moment – where their true position with regard to the camp is: outside" (p.183). By which he means outside of Nazi ideology, appealing to those also on the outside (the rest of humanity). Such gestures of "hope", writes De Kesel,

guarantees them “no real prospect of a place in the real world, but giving them, nonetheless, a “‘human’ place in the hell of the extermination camp” (2010, p.185). Is it possible, then, to extend these ideas to *Muselmänner* upon liberation? After all, as we have seen, the photographs and films made during this period had a particularly crucial role to play in deconstructing Nazi ideology, in putting war criminals on trial and acting as evidence for the “outside”. Indeed, we can see from the photograph above, that the newly liberated prisoners, while still technically *inside* the camp complex, assume an outside position in becoming testifying subjects 75 years later.

Moreover, the accompanying testimony is from survivor Ben Lesser, who recalls being “confused and curious as to why so many *Musselmans* – almost dead men – were faintly screaming this word [liberation] so ecstatically”. Chiming with Oster’s analysis, Lesser’s testimony here indicates the potential for the condition to be experienced as a “reversible phenomenon” (Oster, 2021, p.42), and thus, for prisoners to exist within the liminality of the camp environment as both *Muselmänner* and survivors, as they demonstrate psychological strength in their gestures of hope that are beyond the limits of the condition in its literary understanding. Considering the testimony and image in tandem then, the visitor is invited to deconstruct the dominant representation of prisoners, as “just, and only victims” (Osborne, 2020, p.38) and instead bear witness to the survivors already beginning to testify to their experience of the events. We need only consult Primo Levi’s and Leonardo De Benedetti’s earliest writings in 1945-46 to confirm these motivations. In a report on the liberation of the Monowitz camp (a subcamp of Auschwitz), they write, “the photographic evidence, and the already numerous accounts provided by ex-internees of the various concentration camps”, means “that

there is perhaps no longer anyone still unaware of the nature of those places of extermination and of the iniquities that were committed there" (2006, p.94).

In paying attention to the ex-internees' accounts described by Levi and De Benedetti as part of the memorial archives, we are, however, confronted with both absences and gaps, and thus, must still engage with this memory in "its otherness" (Osborne, 2020, pp.173-74). As the visitor projects these images into the contemporary memorial site, the black and white of the photographs no longer merely functions as a "temporal disjuncture" (Schofield, 2018, p.130), or even to foreground photography in the camps as a "hauntological concern" (Kalin, 2013), but also gestures in its broadest conceptualisation to what Primo Levi described as "the grey zone" (1989).

Contributing to *The Legacy of Primo Levi* (Pugliese, 2004), Baird includes *Muselmänner* as "inhabitants" of "the grey zone" and states, even though it "is a polyvalent symbol with many shadings and gradations", as Levi himself attests, its ultimate anchoring point remains a detachment from human consciousness, from which emerges a kind of "second reality". He continues, "the spectre of the *Muselmänner*, e.g., bears the mark of the greatest degree of abandonment possible in the greatest hour of need" (2004, pp.198-199). To be clear, while the smartphone displays a seamless montage, emphasising "what has stayed the same" (Schofield, 2018, p.69) within the architecture and landscape, the grey frame persists as a border and functions as a symbolic barrier, not only to the past, but also to the absolute inability to know or to truly comprehend the experiences of both the prisoners and liberators, which paradoxically appear to be fading out as they come into view. Borrowing from Griselda Pollock, we can understand this as "the decent obscurity

of archival entombment" (2007, p.194), or as Osborne conceives it, a kind of visual "encrypt[tion]" of the event (2020, p.25). We can see this same kind of coding in Libby Saxton's analysis of Resnais' *Night and Fog* (1956) as she understands the black and white images within the montage as those which "implicitly adopt the point of view of the camp inmates" (2011, p.147).

Despite the rising trend in the colourisation of historical images, the Dachau memorial deliberately avoids this technique. In fact, Deniert explained to me that it was not considered a stylistic choice; displaying the photographs in black and white just made sense from a [journalistic] perspective. Implicit with Deniert's comments was the understanding that black-and-white historical documents are often interpreted by audiences as "authentic". Beyond this, I suggest that the black-and-white of the images (when placed in contrast to colour) have an affective dimension as they are also able to gesture to the fundamental split between embodied knowing and understanding that cannot be overcome in the contemporary memorial site.

The intention made to display the photographs in monochrome is further evidenced by the fact that the Dachau Memorial have presented colourised images of the liberation elsewhere. For instance, they posted a colourised image of liberated prisoners as their first official Instagram post to commemorate April 29 2020. If we accept at face value that colour "usually signals life, realism, and the present" (Baer, 2002, p.154), then perhaps colourisation functions to collapse spatial-temporal boundaries on fast-paced social media platforms. For the visitors, the lack of colour (particularly in the summer months) could play a key role in communicating that the traumatic experiences within the camp remain indecipherable.

4.7 Rephotography as digital witnessing

Picking the tour up once again at stop number six inside the camp, we return to the introduction of the *Muselmänner*. The (approximately) three-minute soundbite invites the user to pause to navigate the "ontological montage" (Kalin, 2013) and make connections to the testimony. Upon closer inspection of the historical image, the user may notice that the central figures, who, we are told "are ravaged by diseased, holding onto each other for support", appear somewhat relaxed as they have their hands in their pockets and assist in helping the second man cross the cement square (recall *fig 16*). To the right is another man who appears to be pushing a barrow. While Lesser's remarks have already been discussed in contrast to the narrator's description of the "lethargic prisoners who are closer to death than life", we could argue further that the survivors here, appear to be assisting in the very process of liberation itself. Following this trend, each historical photograph within the camp challenges the dominant representation of inmates as "uniformly arranged, emaciated" skeletons (Zelizer,1998, p.168) which, circulating well into the 1990s, have come to shape the visual canon of the Holocaust. Revisiting and revaluating these photographs of survivors as part of "the post-Holocaust archive" 75 years later (Osborne, 2020), then, has significant implications if we agree with Oster (writing in 2021), that "the iconic image of the *Muselmann* is at the heart of Holocaust collective memory" (p.53).

Deviation from stereotypical representation is best illustrated at stop number nine of the tour as the user activates a photograph of survivors laying on bunks inside the barracks. Declaring that this image was captured by Lee Miller the day *after* the liberation in an attempt to document the conditions within the camp, the narrator draws attention to the act of photographing, and encourages the user to think about

the “the time of narration, the very time of enunciation and the very act of testifying and not only about the *text* or the content” (Lund, 2015, p.33). Thus, if approaching the archive phenomenologically “means *temporalizing the images* that have been left to us” (Didi-Huberman, 2006, p.27-30) (italics in the original), then we must reread these images as efforts made by survivors and liberators to testify to their experience of liberation. An account by a Soviet Army sergeant at Auschwitz confirms this was a common motivation among the survivors more generally, as he recounts, “some of those who continued to cry started embracing us, whispering a few words in languages we did not understand. They wanted to talk, start telling their stories. But we no longer had time. Night was falling already” (Didi-Huberman, 2010, pp.92-93).

At first glance, Lee Miller’s photograph of 24 prisoners crammed into the wooden bunks visually echoes the now infamous image of rows of prisoners within the barracks of Buchenwald (*figs. 19* and *20*). Both Zelizer (1998) and Oster (2021) chronicle the afterlife of the Buchenwald photograph taken by Margaret Bourke-White and point to its ongoing (mis)representation. The iconicity of the image is partly owed to Elie Wiesel who is pictured “in the second row of bunks, seventh from the left, next to the vertical beam” (Oster, 2021, p.49). Wiesel, as survivor, writer, professor, and political activist (authoring 57 books), has become one of the most prominent figures in Holocaust memory (recall that Wiesel was largely responsible for triggering the debates about ethical representation with regards to the miniseries *Holocaust*). It is perhaps not surprising that this particular image has gained so much attention, but as a result, it has contributed to the oversimplification of the liberation story and engrained such rhetoric in the popular imagination.

Figure 19 – ‘Inside Dormitories, Buchenwald’

Figure 20 – The Liberation, inside the barracks

But the image in Dachau is different. Despite the similarities between the wooden bunks, the group of huddled male prisoners and the (similar) composition of the two images, the photograph of the barracks in Dachau subtlety works against the visual tropes of the *Muselmenn* as “silent, uniform, skeletal (and naked), zombie-like

figures" (Oster, 2021, pp.58-59). As Oster points out, the prisoners within the bunks of Buchenwald are bound into "a unified assertive human force creating a 'dramatic tableau', or still life". She continues, "the centrepiece, the man at the right, 'frontal naked for no reason', is less a person than a stand-in for the others" (2021, p.49). On the contrary, the prisoners pictured at Dachau, are fully clothed, demonstrated most prominently by the individual climbing the bunk in the right-hand side margins of the frame. This shot itself atypically testifies to the remaining strength of the prisoners, as opposed to the focus on weakness and starvation which characterises these photographs more generally.

To be clear, the men within the Dachau bunks appear to be alert and engaged, all forward-facing, leaning on their forearms to hold themselves up. Their clasped hands spilling over the bunks edge give the impression that they occupy this space temporarily as they appear alert and completely aware of the presence of the photographer. This contrasts to the men at Buchenwald who are laying down, struggling to rise, or facing the other direction, inferring that some are they are too weak to give consent, or to turn to face the photographer at all. The accompanying testimony from survivor, Anton Gortnar describes how the "cleanliness that had been the pride of this camp" had been inevitably destroyed by the typhus epidemics and human waste. Of course, this has added importance for Jewish prisoners, as passages in the Babylonian Talmud dictates that "he is not allowed to recite the Shema" in "the vicinity of human and animal excrement, urine, or other sources of foul odors" (Oster, 2021, p.72). Again, the app underscores the integrity and dignity of these prisoners who, in spite of the conditions, sought out a hygienic and humane living space, challenging the notion of the tomblike bunks filled with 'the living dead'.

Further parallels can be drawn at stop number eleven, as the user reactivates an image of boys smiling and cheering behind a fence (*fig 21*), contrasting the "group portrait of emaciated survivors behind barbed wire, standing in rows". As with the previous image, the "disruptions in gaze, facial and bodily expressions, and composition reveal the [young] men's humanity, individuality, and agency" (Oster, 2021, pp.56-57). After Barthes, Oster argues that the viewer can discover the "*punctum*" of these images in the inmates' expressions, the "detail" that has "a power of expansion" (Barthes, 2010, p.24). Indeed, in this image, the third boy from the left wearing the striped inmate clothing catches our attention as he is caught looking downwards smiling at something out of shot.

Figure 21 – The Liberation, survivors celebrate behind barbed wire

The narrator introduces this child, as 14-year-old, Steve Ross (formerly Szchmul Rozental), as he recalls the exhilarating and (physically demanding) moment, he first saw the American soldiers, those he describes as 'God's Army'. In actualizing

this photograph of Ross in relation to his audio testimony, the user goes some way to recode the image, endowing it with a sense of identity and agency. Moreover, the animation in the boys' facial expressions as they whirl their hats in the air is in the same spirit as the photograph in the infirmary barracks at Ebensee (which similarly depicts survivors waving and cheering), the image which Oster highlights as proving her point most effectively (2020, p.59). As we are approaching the final section of this chapter, I will now turn my attention to the home mode version of the application and explore the last stops on the tour.

4.8 *The Liberation* during The COVID-19 Pandemic

In response to the COVID-19 pandemic (discussed in chapters one and two), the official launch of *The Liberation* was put on hold (it remains inactive at the time of writing) and the experience was quickly converted into an online format (KZ Gedenksätte Dachau [online]). Amid ongoing travel restrictions and site closures, the 'home mode' version of *The Liberation* is a critical offering to those who wish to engage with the site from a distance.

Presented in a traditional web browser format, *The Liberation* appears as a series of rephotographic images accompanied by the historical and testimonial narration (in the form of both audio and written text). Much like a traditional museum display, the experience unfolds as a form of "organised walking" (Cole, 2014, p.131) or in this case, swiping, as the visitor's encounter with the archival photographs and testimonial soundbites is completely structured by the narrative. In order to tease apart the key differences between the onsite and offsite experiences, then, I begin by renaming the visitor the user, as the app takes precedence and there is no longer an emphasis on the physical memorial site. To be sure, while the AR app uses functions

(GPS maps, icons, audio prompts) to guide and instruct the visitor around the memorial site, the visitor still *feels* that "their body is the nexus of the experience" as they choose how to distribute their attention between the app and the physical environment (Walden, 2019, p.187).

At home, however, the user focuses solely on the digital interface and thus, becomes aware of their reliance on technology as their only access point to Dachau. Following on from the previous discussion on witnessing and the GUI (graphical user interface) during the global pandemic, this section will once again, focus exclusively on the laptop/computer as the digital interface for the experience. While this version does not require the same kind of labour or embodied performance of smartphone (re)photography, the user still actively participates in the experience as they must scroll and vertically swipe down on the trackpad or mouse to bring the historical images into focus. As will become clear below, the spatial dimension is much less pronounced in the online format of *The Liberation,* but still invites users to imaginatively encounter an *inbetween* space through digitally layering "sheet(s) of time" (Walden, 2019, p.183).

4.9 Viewing rephotography

Crucially, Krell distinguishes between the roles of the rephotographer and the viewer of rephotographic images, asserting that 'for each, distinct discoveries can be made' (2020, p.83). Munteán concurs, and writes, "the kind of affective engagement" afforded by location-based mobile AR apps like *StreetMuseum* is "essentially different" from viewing rephotographs on the internet (2015, p.121). As has been demonstrated, physical places are central to the performance of rephotography and the liminality of the Holocaust memorial landscape is integral to

the performance of rephotographic witnessing. However, unlike *The Last Goodbye* VR experience discussed in chapter two, the AR application experienced from afar does not foster a sense of 'place illusion' (Slater, 2009, p.3351) or ask the visitor to imagine themselves transported to the site. Inevitably, the (supplement) photographs of the contemporary memorial site have less affective potential than the real thing and offers little in terms of perspective of the site's topography. Instead, I argue that greater emphasis is placed on the remediated historical photographs as archival documents. Mapping out this distinction within *The Liberation*, then, it becomes clear that while the on-site version encourages the visitor to transform into the "site-specific" (Mitschke, 2016) (re)photographer from the liberators' perspective, the home mode requires the user to activate and view rephotographic images, or in other words, become an archive reader.

Upon completing her rephotographic project, Krell's work *Traces of Lee Miller: Echoes from St Malo* was shown alongside Miller's photography at the Victoria and Albert Museum in London and formed part of a touring-exhibition in New Zealand and Australia (Krell, 2019, p.81). Using observational methods, Krell reports that visitors interacted with the photographs slowly, and spent much more time viewings the images than the researchers had anticipated. Eager to discuss, viewers expressed a tendency to "daydream" or "think about what was missing" in the images. They "repeatedly asked questions about what happened to the children playing on the tanks in the middle of a road within a picture from the Second World War" (2019, pp.84-85). It became apparent that while rephotographers are primarily concerned with the perspective of the original photographer in time and place, viewers are directly drawn to the people or buildings in the new image, "and may find themselves wanting to know more about who" has emerged (Krell, 2019, p.83).

Without the contemporary memorial landscape competing for attention, the user of *The Liberation* online is not asked to identify with the liberator narrative or to "oscillate between the perspectives from which [they] look" (Kalin, 2013, p.174) but compelled to focus exclusively on those who appear within "the grey zone".

4.9.1 Hauntography online?

Upon accessing the online titlepage, I can see a black and white 3D image of three smiling prisoners in striped uniforms embracing a soldier, superimposed onto an image of the contemporary memorial site. I click to expand my browser into full-screen display. As my hand hoovers and falls onto the trackpad of my laptop, the entire image moves around. A downward pointing arrow highlighted within a white circle indicates that I should click or scroll downwards to begin the tour.

This seemingly pedantic description reveals two critical aspects of user experience which will form the framework for my analysis. The first and most obvious, is that I can actively manipulate the screen as it immediately responds to my gestural input (clicking, swiping, scrolling). This, to remind the reader, is what Manovich (2001) terms "the interactive real-time screen" through which there is an established relation between my physical actions and the represented objects. The second discovery is that this project involves engaging with historical images of the liberation that have an "archival aura" (Osborne, 2020, p.4), as the temporal divide between past and present is immediately apparent as the grainy texture of the monochrome photograph is juxtaposed against the high-resolution colour image.

Without further arrows, I instinctively scroll down to bring up the first ‘stop’ on the tour. The faint historical image appears gradually – and as I continue to scroll – comes into focus. Instantly, there is a ghostly quality, as I see the older image bleeding into the new, and past figures slowly being rendered in black and white. Once in place, the composite image, or “photographic palimpsest” (Munteán, 2015, p.117), depicts the prisoners spilling out of the doors and windows of the *Jour Haus* already discussed above (*fig* 20). In this configuration the ghostly presence of these figures appears in a temporal plain where they are “out of place”. The stone wall for instance, works as a time-bridge, “a material witness to the presence of the solider then (*had been*) and the presence of the [stone wall] now (*has been*)” (Munteán, 2015, p.118) (italics in the original). Unlike the on-site experience where the historical images are clearly contrasted against the physical contemporary memorial site, this image is seamlessly blended and creates a “digital fog along the border of two temporalities” (Munteán, 2015, p.119). It is worth noting that this visual display is also different to other online rephotographic albums such as *Looking into the Past* where the borders between the historical photographs and the contemporary images are clearly distinguished (often including the tourist’s thumb).

To be clear, I suggest that the sense of spectrality that is fundamental to the in-situ experience is reconfigured here but nonetheless, is still constituted the overlapping of the past in the present as I scroll down on the trackpad. This “seemingly immaterial trace of some past referent, appearing uncannily in the present” (Schofield, 2018, p.16) is not associated with the acts of rewalking and reframing in the online format, but rather the blurring of temporal planes through image manipulation.

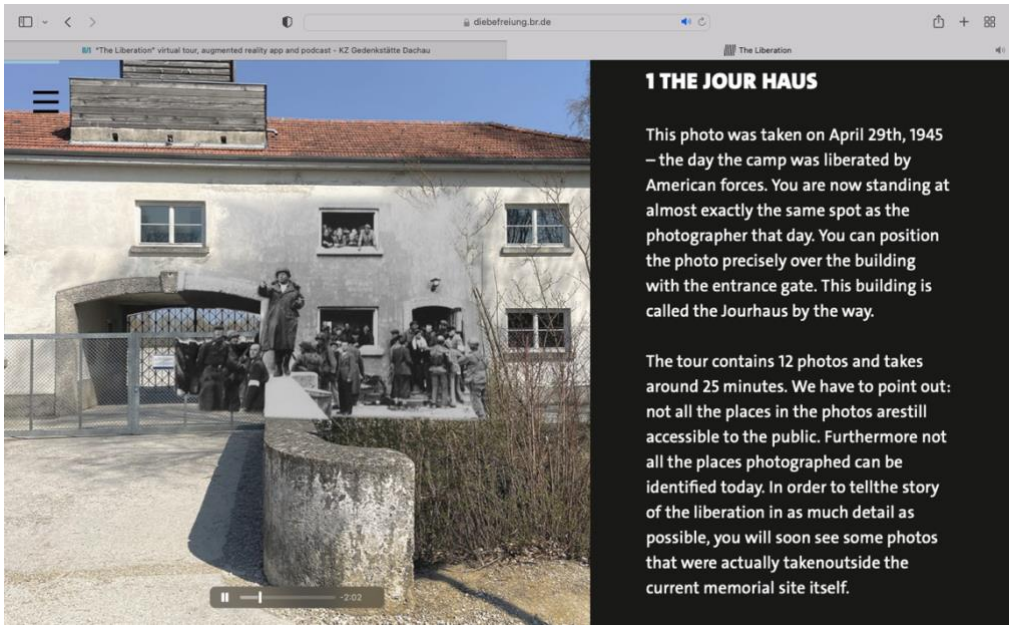

Figure 22 – The Liberation online, The Jour Haus as it appears in the web browser

An earlier photographic project titled *Historical Images Recreated from Dachau Concentration Camp* adds further insight. During 2016 Imgur user, Dan Burkhardt (123Dan6), posted 6 images online, where he overlaid historical images on top of photographs of the Dachau memorial site. In fact, the fourth stop on the tour in *The Liberation* visually echoes Dan's image of former prisoners stood on the inside of the entrance gate. Viewed 202,503 times, these images received 674 favourite votes and generated 301 comments in the discussion panel. Several of these comments refer to these images as "haunting", whilst others express their opinions on the educational value. For instance, one person writes "it is so much more powerful seeing these photos in their context", another said, "I wish I had seen these before I visited a few years ago. I feel that I could have appreciated the experience more deeply". Also worth mentioning are the comments which perhaps foreshadow *The Liberation*. One user proposes that the site "could create an augmented reality app that you could hold your phone up and see overlays like this. So, you could look around and see the horror as if you were there".

4.10 Scrolling into the past

Hoping to take a closer look at the contemporary landscape, I attempt to transition back and forth between the images only to discover that the audio suddenly stops, and I am forced to restart the soundbite. Now, inevitably curious about the potentialities of the screen, I click around, scroll, and highlight the text box using the cursor to no avail. I open the drop-down menu tab on the left-hand margin which offers additional information about the project (which would transport me to a new page) but fail to find any way to influence the represented content. Momentarily distracted by these operative markers, then, my attention has shifted from the "hermeneutic" to "operative mode" (Frosh, 2019, p.253) (to recall chapters one and three), as I am interested in the affordances of the pointer, as my digitally extended hands.

Correspondingly, Liestøl's audience study of the *Omaha Beach* AR mobile application revealed that most users tried to "activate the app outside the area of simulation" (2019, p.206). While some may have simply not read the instructions, this also suggests users were testing the limits of the technology, a common motivation seen in audiences interacting with new media technologies more broadly. From the start, I have navigated *The Liberation* through the GUI by performing a series of habitual, sensorimotor operations almost subconsciously. Now, however, the system calls attention to itself, and I become acutely aware of the limitations of this version. I realise that beyond swiping downwards on the trackpad, my physical actions do not have the ability to shape the trajectory of the tour itself.

It is worth pausing to note that rephotographic images which use the interactive overlay technique often require horizontal swiping to overlay the older image. Indeed, much of the research emerging on human-computer interaction suggests that *horizontal* swiping is preferable and creates higher levels of enjoyment for the user (Dou and Sundar, 2016). Often compared to turning the pages of an (e-)book, the vertical swipe primarily marks a difference between the content on screen. This would be a useful format for *The Liberation* as it would allow the user to seamlessly glide back and forth between the older image and its modern-day reconstruction, perhaps more closely resembling the on-site experience as visitors continuously oscillate between the perspective of the historical photograph on their smart-device and the memorial site before them. Despite this, as we have discovered, this version of *The Liberation* requires vertical swiping, which studies suggest represents a continuous flow in information that demands more time to decipher on screen (Ren et al., 2017, p.67).

Beyond a traditional web-browser format, I argue that vertical swiping and/or scrolling in this case, encourages the user to spend time forging connections (as Krell's participants did) between the historical images and eye-witness testimony. As Walden argues, the swipe "can instigate the desire to connect discrete elements and to create flow between them and to make different images meaningful to a specific context" (2019, pp.189-190). This is further reinforced by the (approximately) three-minute soundbites which invite me to pause to look at the historical images in much greater detail than the on-site experience.

Once again, these disruptions have been critical, as I now recognise that uncovering these historical images is the principle objective of the online project and that the

dominant motion of scrolling downwards on the trackpad enables a kind of reactivation. In other words, in the tension between the human (body), content and machine, a technological language has entered into discourse, and has communicated instructions with how to proceed. Such instructions could be interpreted as symbolically representing the "vertical logic of archaeological investigation" (Baron, 2014, p.163) as I feel as though I am invited to perform a kind of 'digging' up of archival photographs that reveal the "temporally 'deep' layers of the past" (Baron, 2014, p.63). We can liken this to Walden's notion of a digital "excavation tool" (2019, p.188). While both *The Liberation* and *Oshpitzin* AR apps are designed to be used in-situ, the logic carries over to the online experience through interactions with the GUI. To proceed with the tour, then, I must adopt an "archaeological attitude", to imaginatively perform this kind of unearthing of the archive. Despite the limited possibilities for interaction, scrolling, like the swipe, demands that the user "take[s] responsibility for the development of the experience" (Walden, 2019, p.190).

Reminding us that designers establish the rules of engagement, Kinder points out that while interactions are possible, interactivity is simultaneously an "illusion". As proposed in chapter one, a "productive way of avoiding these two extremes (of fetishizing or demonizing interactivity), is to position the user or player as a 'performer' of the narrative" (2002, pp.4-6). In this instance, then, agency emerges in my decision to imaginatively continue with the tour as a kind of archaeological dig and to perform dispersed attention, both cognitively and physically through my interactions with the GUI. In doing so, I respond to the inherent technological discrepancies within the format and design of the online version and renegotiate my relationship to the experience through a (remediated) rephotographic process. More

specifically, scrolling downwards transfers into mnemonic action through “the interactive real-time screen”. We can return to Frosh’s understanding of “haptic visuality” and “user indexicality” (Frosh, 2019, p.158), as the established relation between scrolling, reinstating the historical photographs and activating eye-witness testimony creates a proximity with the tour from a physical remove.

4.11 It’s about time

From the analysis above, it becomes clear that *The Liberation* resists a “quick illustrative form of engagement” and employs rephotography as “a visual means of taking responsibility, embarking upon and persevering with a visual journey that can make contributions to knowledge” (Mcleod, 2014, p.77). To be sure, it has been argued that through sustained engagement with the AR app, the visitor/user witness the human dimensions of the event, details hidden within these archival photographs that may have overwise been overlooked.

Once again, I draw parallels to Felman’s reading of *Shoah* to reiterate how (new media) technologies continue to extend our capabilities to witness. She states, there is “a new possibility of sight, a possibility not just of vision – but of re-vision. Lanzmann finds precisely in the film the material possibility and the particular potential of *seeing again* someone like Srebnik, whom, after his shooting, no one was likely or supposed to see ever again” (1991, p.51) (italics in the original).

Indeed, the experience encourages the visitor to pause over these documents and read them through their gestures of humanity, dignity and their individuality, honouring the memory of the prisoners of the camp by revivifying them in the present through this kind of “re-vision”. Griselda Pollock asserts (and Wilson

repeats), “we must return to each body its status as potentially known, beloved, valued, possibly brilliant, certainly mourned human being” (2007, p.127) and *The Liberation* AR app appears to extend this sentiment to the images of the inmates, at once *Muselmänner* and survivors at Dachau.

Crucially, in the final stop of the tour, “How to Carry On”, the visitor/user is confronted with three prisoners sat on a step as the narrator informs us that these individuals have still not been (and are unlikely to be) identified (*fig 23*). In lieu of their testimony, we hear an extract from Heinz J. Herrmann, a 24-year-old who arrived in Dachau in January 1945. His recollection of the liberation, the designers believe, capture “the mood” of the photograph well. He states,

> Quite a few people, myself included, just could not understand what was going on, that there was no need to be afraid anymore, that one minute we were hunted beasts and the next we were free men. I can’t remember there being lots of cheering, not many of us had the strength for wild delight, but everyone expressed their joy in their own way. People got on their knees and prayed, cried, laughed, threw themselves onto their liberators and embraced them. Others looked for their friends to savour this wonderful moment together, and many did not know what to do with their newfound freedom. Did they have relatives to return to, did they have a home that was willing to accept them, was there and existence for them after all those years of being “provided for”?

Figure 23 – The Liberation, the final stop on the tour

Asking some provocative final questions, Deinert confirmed the app intends to leave students as well as visitors thinking about the complex nature of liberation and both the emotional as well practical obstacles that prisoners would have faced immediately in the post-War period. This does feel somewhat of an abrupt end to the experience and most notably, it denies the visitor/user the ability to (re)connect these individuals with their names or their testimony. In fact, they are explicitly told that the museum itself does not have this information, inferring at once that these prisoners will remain anonymous and (therefore reminding the user of the bigger picture with regards to all of those lost during the Holocaust), while at the same time suggesting that there is still work to be done. What is critical is that once again, this project resists our narrative urges for closure and totality, and echoing the ending in *Night and Fog – warns* against it. If in any doubt, the narrator's final comments state:

Many of the liberated prisoners were just lying around apathetically, weakened, and dazed. Some of them survived the liberation only for a few hours or days. *They could not be saved and did not even realize that they were free*.

(italics added)

5. Playing the National Witness: American Holocaust Memory in *Call of Duty: WWII*

Enter video games: the "medium of our moment" (Ramsay, 2015, p.162) which have now "replaced film as the preeminent visual consumer product of the twenty-first century" (Hayton, 2015, p.249). Indeed, in the wake of COVID-19 pandemic the gaming industry ballooned by 23% in 2020 alone (Williams, 2022) and saw an exponential rise, not only in profits and players, but also people wanting to watch others play. Video games depicting warfare have been a mainstay in popular culture since the earliest years of the industry and today, the Second World War is still "the conflict of choice" (Ramsay, 2015, p.163). The infamous *Call of Duty* franchise (hereafter *COD*) is a primary case study in point, as it is in the top ten highest grossing video games of all time, wining over "eighty game-of-the-year awards" and receiving the industry's first award from the British Academy of Film and Television – "significant at the time as a belated acknowledgment of gaming in the general mediascape" (Ramsay, 2015, p.170). Despite a rich history of World War Two video games, the industry, and *COD* more specifically, has "consistently avoided the Holocaust" (Hayton, 2015, p.264).

However, in 2017, the designers of *Call of Duty: WWII* (Sledgehammer Games) publicly declared their intentions to explicitly depict the Holocaust. Upon release, senior creative director, Bret Robins, somewhat ambivalently, stated, "you can't tell an authentic, truthful story without going there. So we went there" (Pink, 2017, [online]). Exposing an untold and forgotten story, *COD:WWII* references the 350

American soldiers who were sent to Berga labour Camp during 1944. While former U.S solider and award-winning director, Charles Guggenheim, produced the film *Berga: Soldiers of Another War* in 2003, Berga remained on the margins of memory until survivor Anthony Acevedo, broke silence over his experiences in 2008. Subsequently, this research takes a critical look at the significant shift the narrative has undergone, from being the subject of a small documentary to that of the "most popular video game" (Hayton, 2015, p.249) in order to determine how the game encourages memory practice through an American lens. As my analysis will prove, this particular story – framed in the context of the war more widely - enables the game to engage with discourses surrounding the "nativisation and nationalization" of the Holocaust in American memory (Cole, 2004) without explicitly representing The Final Solution or persecution of European Jewry. Indeed, it reinforces rhetoric fostered by institutions such as the United States Holocaust Memorial Museum (USHMM) which frames the Holocaust as "the most un-American of crimes" (Cole, 2004, p.10).

Following the same line of enquiry as the chapters above, this work includes a phenomenological description of my experience to explore the possibilities of digital witnessing through play. Paradoxically, however, my investigation exposes how the structure and processes of the game discourage play and limits interactivity within the camp setting. It follows that in order to access the dominant witnessing frame, the player is forced to effectively *stop playing* the game. Expanding Bogost's (2006) theory of "procedural rhetoric", I demonstrate how the game mechanics issue symbolic arguments about (not) playing with the camp as a "site-specific" (Mitschke, 2015) Holocaust landscape. In so doing, *COD: WWII* upholds the Holocaust gaming taboo and reinforces notions of digital 'Holocaust etiquette' (Des

Pres, 1988). Central to this chapter, then, are questions of how culturally dominant narratives bleed into creative works emerging outside the institutional fold, and how such national rhetoric may be both perpetuated and challenged by the procedural processes of the video game itself.

5.1 Holocaust video games?

The rhetoric surrounding the Holocaust's "unrepresentability" (Kékesi, 2015, p.9) and fear of what Lynn Rapaport has labelled, "profaning the sacred" (Rapaport, 2010, p.101), preface most scholarly discussion around Holocaust (video) games. Consider Luc Bernard's *Imagination Is the Only Escape*, an animated educational computer game depicting the story of a young Jewish boy who is forced to flee Paris after his mother is captured by the Nazis. In 2008 the game was denounced by survivor Jack Kagan who exclaimed, "the Holocaust story is not for a game, for children or adults" and was subsequently shelved. In 2014 Bernard created a crowd-funding campaign in New York but only raised $5,000 out of the $124,000 goal (Parker, 2016, [online]). Deborah Lauter, civils rights director of the Anti-Defamation League, states, "labelling it a game instantly conjures up the wrong image", she continues, "it devalues the seriousness of the topic" (Parker, 2016, [online]). Bernard declared his intention to make this an "interactive story" rather than a video game such as *COD* which he finds "disturbing" as, in his view, they make events of the war "entertaining" (Webster, 2013, [online]). Despite his intentions for creating a pedagogic computer game that minimalised realism (explicit references to the Holocaust would only feature in the opening and closing scenes), the game was never produced.

The National Holocaust Centre and Museum's digital project, *The Journey* (2020) proves an interesting case study by comparison. As previously stated in the opening chapter, *The Journey* follows the life of a young Jewish boy in 1930s Nazi Berlin who escapes on the Kindertransport. Described as an animated "interactive story game", the application is marketed as a pedagogic tool for key stage two students. Situated within the Centre's ever-growing portfolio of digital Holocaust memory projects such as *The Forever Project* (2015) (explored in chapter three) and *The Eye as Witness* (2019), this "story game" has so far, received little criticism and has been endorsed by Kindertransport survivor Ruth Barnett, who states that the "possibilities for a user of the app are many times greater than those in the [museum's] exhibition" (The Jewish Chronicle, 2020 [online]). However, two fundamental differences between *The Journey* and *Imagination is the Only Escape* ought to be taken into consideration here. Firstly, *The Journey* is developed within a prestigious institutional setting and is propped up with government funding. Secondly, the games are separated by a time span of over a decade, which points to not only the advancement of technology, but also the wider socio-cultural and political shift (to which this thesis testifies) in our approaches to representing the Holocaust *in* and *through* the digital more widely.

Throughout the COVID-19 pandemic, the Digital Holocaust Memory Network, hosted guest blog posts and a two-part workshop series titled *Playing the Holocaust* (2021, [online]). Sharing the panel with fellow academics, our discussion spanned across the subjects of playability, witnessing, responsibility and audience responses to current computer and/or video games. After laying the theoretical groundwork, the second session welcomed industry professionals and game designers to speak about their own projects and forthcoming games. Notable participants included Jörg

Friedrich who co-founded the historical resistance sim *Through the Darkest of Times*, as well as, Angela Shapiro, a member of Gathering the Voices (an organization which records stories of Holocaust refugees arriving in Scotland), which has developed two computer games on the subject titled, *The Arrival* and *Marion's Journey*. Luc Bernard also gave a presentation, tracing back his experiences since first proposing *Imagination is the Only Escape* and looking to the future with his upcoming game *The Light in the Darkness*. Of particular interest was a project that Noemie Lopian (a child of Holocaust survivors) is working on with game designer Dan Hett to produce a game about her father's experiences. These presentations were followed by a lively Q&A session which (spilling over onto Twitter) carried on throughout the evening, long after the formal workshop had ended. Reaching the highest viewing figures and widest audience demographic the site had seen at that time (spanning 87 nations), suffice to say, the topic of gaming the Holocaust was received with optimism and intrigue.

However, these shifting attitudes cannot not be overstated and as Pfister (2020) reminds us in the German context, "articles 86 and 86a of the German Strafgesetzbuch (the criminal code) outlaw the use of symbols of 'unconstitutional organization' (p.267). While exceptions were "applied generously" to books, graphic novels, and films, "symbols such as swastikas, SS-runen and the Hitler salute" were off-limits for digital games. Indeed, while the "German Entertainment Software Self-Regulatory body USK (Unterhaltungssoftware Selbstkontrolle) declared in August 2018 that it intended to apply the Sozialadaquanslkausel" (the pardon) to certain digital games in the future, the announcement was met with national controversy and was vehemently rejected by prominent political figures and trade union groups (Pfister, 2020, p.267). It appears that digital games produced

outside of official memory institutions are still subject to the “policing” Flanzbaum described at the start of the millennia (1999, p.276).

The notorious *Wolfenstein* franchise is an illustrative example of a game which deals with Nazi themes in radically different ways to the small independent games mentioned above. Credited as pioneering the FPS (First Person Shooter) genre and “establishing its significance within the gaming industry” (Ramsay, 2015, p.167), the game has been around since 1981. In fact, *Wolfenstein 3D* (1992) (the first FPS to be set in World War Two) was banned in Germany for its excessive use of violence. As the seventh main entry in the *Wolfenstein* series, *Wolfenstein: The New Order* (Machine Games, 2014), pushes the boundaries and teeters on playing with the Holocaust in more explicit ways than its predecessors by introducing a level within a concentration camp (albeit an imaginary location).

The narrative is set in 1960s Europe where the Nazis have won World War Two and follows the story of William Blazkowicz as he tries to stop the Nazis from ruling the world with advanced technological weapons. While the game engages directly with National Socialism, it presents evil Nazis through the lens of the supernatural and the occult, eliding The Final Solution and the persecution of European Jewry. The *Wolfenstein* franchise more generally draws upon a rich history of “Nazipliotation cinema” (Magilow et al., 2012) paying homage to films such as *Night of the SS Zombies* (Reed, 1981), *Zombie Lake* (Rollin, 1981) and pornographic representations such as *Ilsa, She Wolf of the SS* (Edmonds, 1975). As Buttsworth and Abbenhuis recognise, “much of popular culture takes liberty with Nazi themes but removes them almost completely from their Holocaust context” (2010, xxi). While Nazis represent the universal enemy, European Jews cannot be the opposing force that enable the player to victory. Hence, designers replaced genocide with the occult,

and encourage the player to adopt the identity of Blazkowicz, an American solider form Texas (with an ambiguous Jewish heritage). While the game inched closer with an explicit visual reference to a concentration camp, then, it ultimately evaded The Final Solution and reverts to age-old tropes.

Thus, the release of *COD: WWII* became heavily anticipated after the designers posed a radical shift in the way the franchise – and mainstream video games more widely - would engage with the history of the Holocaust. It is useful to note, war games are generally divided into two categories, "the first class consists of games based on historical events, taking place in a real historical period" and the second class, "is fantasy or Sci-Fi games involving strange life forms' magic powers and (as of yet) non-existent technologies" (Tovy, 2017, p.64). While *Wolfenstein* conforms to the latter, *COD: WWII* (the main campaign), obsesses over visual realism and makes an "absolute demand for verisimilitude", which according to Flanzbaum is "a phenomenon related to developments in American culture in the seventies" (2001, pp.277- 283). This chapter, then, foregoes the multi-player and 'Nazi-Zombie mode', in order to investigate the affordances of digital witnessing within the primary single-player military campaign.

The campaign follows the story of Ronald 'Red' Daniels (the player), a young United States Army Private and his squad, the United States 1st Infantry Division during 1944 when the Allied Armies were gaining strength and moving into Nazi Germany. Starting on the beaches of Normandy, the player makes their way through occupied France, to Belgium, across the Rhine and into Germany where the War is won. According to Cripps, "the conventions of the platoon drama require that the group must be a microcosm of an American life in need of cohesive unity" (Cripps, 1995, p.156). Thus, "the platoon drama typically presents a group of soldiers whose

diversity in terms of race, religion, socioeconomic class, region and the like reflects the diversity of the society for which they are fighting". *COD:WWII* adheres to this "war-film tradition" (Haspel, 2004, p.158) by presenting a group made up of protagonist, Ronald 'Red' Daniels, who represents the everyday soldier from a rural farm in Texas with a family waiting at home and the squad leader, Technical Sergeant Pierson, the unforgiving veteran of the North African Campaign. Additionally, the squad includes Lieutenant Joseph Turner from Cambridge, Massachusetts, as well as Private Zussman, originally from Chicago with German-Jewish heritage. Crucially, Private Zussman is the narrative device through which the game introduces the camp landscape, as during the Battle of the Bulge, Zussman is captured by the Germans and taken to a POW camp before being transferred to a forced labour camp. A short cinematic cut-scene follows the mission to inform the player what happens to Zussman within the camp.

5.2 *Call of Duty: WWII*: Historical Context

The cut-scene opens with the title '12 hours later, Bad Orb, Germany'. The leading Nazi Sergeant Erwin Metz is soon introduced as he declares, "I'm looking for workers. Separate the Jews". A mid shot reveals a forest area laden with watchtowers. In front of the barbed wire fence is Zussman, stood amongst a line of U.S soldiers (*fig 24*).

Figure 24 – Call of Duty: WWII, Erwin Metz forces the American Soldiers to line up

Made up of a mosaic of testimonies, the video game attempts to condense accounts of the historical event into a cut scene lasting 1 minute and 36 seconds. These details place the characters at Stalag IX-B (also known as Bad Orb-Wegscheide), a POW camp created in November 1939. To be precise, the cut-scene collapses accounts of 19 January 1945, where men were lined up and told to identify the Jews amongst them (and were subsequently segregated in Jewish barracks) and the 8 February where 350 men were forced onto a cattletruck and sent to Berga (not to be confused with Berg Concentration Camp), located within a small German town on the Elster River (Whitlock, 2005, pp.119-120). According to former U.S Army officer turned military historian, Flint Whitlock, Berga was a subcamp of Buchenwald, and "was divided into two sites, unofficially named Berga I and II" (2005, p.133). In order to reach the quota, "Jewish American soldiers, U.S POWs deemed to resemble Jews, so-called troublemakers, and GIs unlucky enough to be picked at random were sent

to Berga" (Cohen, 2005, p.7). It is reported that out of the 350 men forced onto the cattletruck, only 80 were actually Jewish.

In many ways, Zussman's character in the game reflects the actions of Hans Kasten, an American G.I who lived in Wisconsin (two hours from Chicago), also with German heritage. Appointed as the 'Man of Confidence' for his leadership skills and ability to speak fluent German, Kasten became a middleman between the guards and the other prisoners. Several accounts confirm Kasten told the Germans, "In our country, we don't differentiate by religion – we are all American", mirroring Zussman's defiant line, "We're Americans, period". As Harold Brick recalls, Kasten refused to identify the Jews, "and that's when he got beat...I physically saw him get hit over the head with a rifle butt, in view of anybody who happened to be close enough to see it. Not once but twice" (Saylor, 2007, p.133). The emphasis on national identity here is bound up with fixed notions about the American way of life and the Declaration of Independence. To be clear, the cut-scene works to frame Nazism in opposition to American ideals, as implicit references frame the Holocaust as the most "un-American of crimes" (Cole, 2014).

The game also stresses the importance of sergeant Erin Metz (who was the commandant of Berga) by making him the central villain of the narrative. Deviating from historical accuracy by placing Metz in this scene, his assault on Zussman at Bad Orb seems disproportionate after having just shot another solider in the head for committing a less serious offence. However, survivors have testified to Metz choosing *not* to shoot those who outwardly defied him. Norman Fellman, for instance, recalls Metz holding him at gunpoint, demanding he leave the latrine. "Go ahead and shoot, you son of a bitch; I'm not moving" replied Fellman and to his surprise Metz "put his gun in his holster and walked away" (Whitlock, 2005, p.155).

This behavior demonstrates Metz's "sadistic" obsession with power that has been repeatedly reported within eye-witness accounts (Cohen, 2005, [online]). In this way, the game designers use the cut-scene not only as a narrative device to bridge the story of the campaign, but also choose to privilege testimony to capture the characteristics of Metz himself, that is, in fundamental opposition to the American soldiers. The significance of selecting Metz as the leading Nazi for the game will be discussed further in the final sections of this chapter.

5.2.1 Berga Forced-Labour Camp

Historically, Berga had "the highest death rate of any POW camp (twenty percent), [as] prisoners were slowly worked to death alongside European Holocaust victims" (Howard, 2013, pp.1-2). Reaching temperatures of "-30 degrees Fahrenheit' this was a slave labour camp where the prisoners were forced to dig 17 mine shafts into *Steinberg* (Stone Mountain) on the bank of the Elster River (Howard, 2013, p.15). As Whitlock explains, 'the tunnels were to be a bomb-proof oil-shale production facility'. He continues, this mysterious project 'was code-named *SS-Führungstab Schwalbe V* (SS-Command Swallow Five)' (Whitlock, 2005, p.134). Historians indicate that both the American POWs and inmates from Buchenwald Concentration Camp (which was receiving an influx of Jewish prisoners by January 1945) were forced to drill holes in the back of the rock using pneumatic drills (without protective clothing) for 12 hours a day without food or water. This was until the American liberators had reached Bad Orb on the 2 January 1945, and subsequently, in early April prisoners were evacuated from Buchenwald and its subcamps. On April 3, guards Metz and Merz marched the prisoners out of Berga southward towards Bavaria. During the evening of 22 April, the remaining prisoners (hiding in a barn) were awoken by the sounds of American tanks coming up the road who

finally liberated them on 23 April 1945 (notably the liberation did not take place within the camp itself).

To be clear, *COD:WWII* uses the historical episodes of Bad Orb and Berga labour camp to align its narrative with the deployment and deportation of Jews to imply a proximity to The Final Solution without explicitly representing concentration and/or extermination camps. It is worth pointing out that the Foreign Claims Settlement Commission of the United States found that some American "POWs were held in concentration camps like Dachau, Bergen-Belsen and Mauthausen rather than POW camps" (Ridgeway, 2001, p.778). The choice to represent Berga becomes even more surprising perhaps, when it is recorded that "150 U.S fliers were interned at the infamous Buchenwald" itself (Ridgeway, 2001, p.778). While the implications of choosing the smaller subcamp will be considered in greater depth below, it seems clear from the outset that the game deliberately sidesteps the story of American soldiers who were both internees and liberators of these better-known concentration camps.

5.2.2 Narrative structure in *Call of Duty: WWII*

In the game, Zussman boards the cattletruck and the cut-scene ends. Another begins as the narrative returns to Daniels, who is resting in the 42nd Field Hospital in Ardennes Forest. It is now 3 March 1945, eight weeks since Zussmann was captured. Declared a bona fide hero, Daniels is discharged and allowed to return home to Texas. Instead, guilt-ridden, Daniels returns to his platoon and convinces Pierson to let him fight. The final mission, "The Rhine", begins and the player must engage in heavy gun fire as they navigate Daniels across the bridge and force the Germans to surrender. Upon successfully holding the first bridgehead on the Rhine,

the game is complete. Only then does the epilogue begin and the narrative returns to Zussman.

Significantly, Holocaust iconography is contained within the cut-scene discussed above and a single level of the game which is strategically situated in the epilogue. The structural framework suggests the Holocaust is not part of gameplay per se, but that it is something separate to the main campaign - something deferred and of its own significance. My investigation into the witnessing frame therefore exclusively focuses on the epilogue and considers how the player is encouraged to adopt the attitude of the national witness to self-critically and self-reflexively consider the role of American Holocaust memory practice in a contemporary context.

5.3 Playing the epilogue

As I move the (Xbox) analogue stick forward and approach the camp, I am prompted by an objective update to “find Zussman”. Marking the return to gameplay (after another cut-scene), the health bar appears in the bottom-left corner of my screen and indicates that there is a potential threat to life within this landscape. However, as we will see, these typical gamic functions are misleading here, as there is no threat to life within the space of the labour camp and it essentially unfolds as a walk-through, not dissimilar to the digital tours I have explored in relation to *The Last Goodbye* VR experience or *The Liberation* AR app. Going further, such “organised walking” also correlates to the more traditional museum experience at places such as the USHMM in which a ‘pathway is laid out’ for the visitor and they are encouraged to pause at various informational panels (Cole, 2014, p.131). With my gun drawn in front of me, I occupy Daniel’s perspective through the standard

FPS point of view (P.O.V) (*fig 25*). As Galloway (2006) notes, the FPS shot not only signals a level of control but also enhances player-avatar identification.

Debates about the "avatarian connection" are central to our understanding of the affective potential of digital games. Hence, it is worth pausing here to consider my embodied and corporeal relationship to Daniels before proceeding with the analysis.

Figure 25 – Call of Duty: WWII, the player occupies the FPS Shot

Digital media scholar, Rikke Nørgård (2011) divides the player-avatar identity into five key categories: visuality, cognition, dramaturgy, prosthesis, and sociality. Visuality is linked to spectatorship, as Rehak asserts we play "to watch ourselves play" and pursue our "reflection in the imaginary" (Rehak, 2003, pp.118-19). The second category, cognition, concerns "transmitted intentionality" (Nørgård, 2011, p.3), where the player "projects their desire, intentions and goals" through the avatar or "projective being" (Gee, 2008, p.260). Dramaturgy is about performance, as Nørgård proclaims, "player-avatar identity is framed as a relation of escapism wherein players are immersed in the role-playing or performance of avatars as

fictional characters". Whereas prostheses is about the player extending their own bodies and using the avatar as a puppet or "prosthetic body" to position themselves in the game world (Nørgård, 2011, p.4). The final category, sociality, describes the act of refashioning yourself within the avatar form. As Rachel Hutchinson states, "the player undergoes a process of identification, with the avatar becoming a projection or imagination of the self" (Hutchinson, 2007, p.288). Clearly resonant with the discussions throughout this thesis on splitting ourselves in two (Frosh, 2007) and taking up our digitally extended selves through the imaginary, Nørgård also notes the fluidity of such motivations and argues that a player can occupy multiple positions simultaneously. Important for our purposes is Nørgård's addition of the sixth category (used to reform the first five), which she terms 'corporeal connection', which foregrounds the phenomenological aspects of gameplay. She states,

> In accordance with the concept of the body schema players know themselves as avatars through the corporeal locomotive action they undertake. On the grounds of the body schema the avatarian connection is meaningful because of what players are capable of *doing* because of it, and not because of what players are capable of *looking like* or *looking at* because of it. Hence, the avatarian connection is more a question of corporeal-locomotive capabilities than of visual perception or appearance.
>
> (2011, 6) (italics in the original)

While *Call of Duty: WWII* goes to great lengths to ensure the player identifies with Daniels (through multiple cut-scenes and details of his backstory), as Nørgård

suggests, during the missions themselves “there is no time for role-play or make-believe as players try to root their digital corporeality in their corporeal digitality as they concurrently interact digitally and corporeally in the game world” (2011, p.10). To be clear, the fast-paced missions that see Daniels operating weapons as he runs across dangerous terrain demands intense interactivity from the player and is about “hand-sight”, the act of strategically pushing buttons and watching the screen over visual perspective (Nørgård, 2011, p.7). This adheres to Andrew Darley’s term “vicarious kinaesthesia” (Darley, 2000) which is an awareness of one’s sensory presence in a videogame. As James Newman claims, “the pleasures of videogame *play* are not primarily visual, but rather are kinaesthetic” (Newman, 2002) (italics in the original). However, while this may be true of the game generally, interesting shifts happen to the player-avatar relationship the moment I enter the camp landscape.

5.3.1 Inside the camp: (not) playing Berga

As we cross the threshold into the camp, the Holocaust iconography of barbed wire, barracks, watch towers and bellowing smoke is immediately apparent. Non-player characters (NPC) Stiles notices the barracks in the distance, and I am instructed by Pierson to accompany him. Walking ahead, I attempt to enter the first wooden block on the right, but the door remains closed. In fact, I cannot enter any of the barracks until Stiles catches up and leads the way into the block marked number six. Upon exiting out the other side of the barracks, we find ourselves on a pathway framed by barbed wire, where it some becomes apparent that I cannot run, jump, or fire my weapons.

Galloway's four categories for gamic action are useful for exploring this decline in game play, as drawing from film theory, he speaks of the "diegetic" and "nondiegetic" within the game world. Essentially, when playing Berga, gameplay is reduced to a series of "nondiegetic machine acts" and "nondiegetic operator acts" (2006, p.8). For instance, I am forced to follow Stiles, Pierson and Aiello, as they lead the way through the camp assisted with digital arrows, a proximity meter, and dialogue. The digital arrow and proximity meter are "nondiegetic machine acts". Used in this way, they constitute what Galloway calls an "enabling act", which is where "the game machine grants something to the operator: a piece of information". This could include "points, currency or some extra bonus" (2006, p.31). I am invited to use this information to navigate the camp as I am forced to pause at the gallows and barracks for reflection. Thus, I'm invited to exercise very little agency and I am being ushered through the camp via the game semantics.

Significantly, this is the only section of the game that requires me to control the avatar without needing to use a weapon. While this is not surprising given the FPS genre in which the game is situated, it is noteworthy that this is the only mission which requires nothing more than basic "move acts" that is the form of "player character motion" (Galloway, 2006, p.22). Moreover, walking is the only pace permitted, encouraging me to take time exploring the camp which (unlike other levels) is a fully realised digital space. The graphics are not static projections that disguise the 'walls' of the environment but instead allow the player to see details of the landscape. In fact, the skip option which has been made available throughout other levels is now disabled. This change of pace is illuminating when considered in contrast to the previous mission which saw the fast-paced epic battle across the Rhine. Indeed, in reinforcing the point, Baron notes in reference to *Call of Duty:*

World at War (Activision, 2008), that the "barrage of sounds and images" set to the "rhythm of war" more generally, gives the players of these games "little or no time to think, connect, or question" (2014, p.168).

As I reach the other side of the camp, the proximity meter which marks my location in relation to Zussman, rapidly declines as I begin to approach a pile of corpses. It reaches 1.4m before disappearing off the screen, which is deliberately misleading as I assume Zussman is amongst the dead. This is an example of when the "the line between what is diegetic and what is nondiegetic becomes indistinct" (Galloway, 2006, p. 28) as the "machine act" now has narrative value. Researching the reception of the game using online walk-through tutorials proves that experienced players in the gaming community express concern for Zussman at this point. Online gamer, TmarTn2, for example, (who at the time of writing has 4.82 million subscribers) raises his hands to his head and shouts "I thought he was about to say he [Zussman] was one of those bodies" (Youtube, 2017, [online]). To the player's relief, Zussman is not amongst the corpses and Pierson points to the forest to indicate that he has been led on a march out of the camp.

Returning momentarily to the player-avatar identity, then, I argue that in the camp landscape my "corporeal connection" (Nørgård, 2011) to Daniels becomes strained as the haptic feedback loop between my physical actions (with the controller) and the game world no longer corresponds. If "the avatarian connection is meaningful because of what players are capable of *doing* because of it", then in this instance, the *dis*connection becomes meaningful because of what players are *no longer capable* of doing in spite of it. Not only does this sharp decline in playability draw attention to the digital interface, but it also makes me acutely aware of my own self-location at home and thus, reminds me of my spatio-temporal remove in a contemporary

context. As established in the first half of this thesis, remaining conscious of the framing apparatus (and hence the entanglements of the human and machine) can expand our capacities to perform witnessing in digital contexts.

5.3.2 Procedural rhetoric

In prompting the player to recognise the special nature of the epilogue, I posit that the game represents the camp landscape as a liminal quasi-sacred space. Recalling my discussion in chapters two and four on "site-specific performances" within Holocaust landscapes, it is possible to see how the game fosters the "strong restrictions" laid out by Des Pres as "Holocaust etiquette" (1988, p.231), only now reflected in the rules of the game itself. As Schramm reminds us "declaring something sacred means to remove it from the everyday realm, giving it special attention and symbolic value" (2011, p.7) in the same way the game separates the camp from all other levels and forms of play.

Age of Empires (Microsoft Studios) designer, Bruce Shelley, argues realism is a tool that can be used in video games but is not fundamental. He asserts, "realism and historic fact are resources or props we use to add interest, story, and character to the problems we are posing to the player" (Galloway, 2006, p.30). While *COD:WWII* employs various iconic historical narratives as backdrops for gameplay, it is important to stress that on this particular level (for want of a better word), the game does not "pose a problem" to the player. Gameplay is in effect suspended and the player is forced to walk through the landscape without the option to skip. To overcome problems, players have to understand the rules of the digital space, learn the controls and essentially break the code. Manovich articulates this point; games "demand that a player can execute an algorithm in order to win. As the player

proceeds through the game, she gradually discovers the rules that operate within the universe constructed by the game". He continues, "she learns its hidden logic – in short, its algorithm" (Manovich, 2001, p.222).

Galloway and Meier agree with Manovich, acknowledging that video games are unique media not only due to the participatory function but to the mastering of algorithms in the "informatic age" (Galloway, 2006, p.91). To ensure the player learns to master the algorithm, the campaign presents the same kind of problems repeatedly (increasing in difficulty), which involves shooting down the enemy and advancing across various terrain. The decline in combat then, serves to highlight the special quality of the epilogue, because now the player is forced to operate differently (both physically and cognitively speaking). The player is back to basics, the aforementioned form of "player character motion" (Galloway, 2006, p.22), where no mementoes or achievements are to be obtained. Mastery is reduced to amateur gameplay where all that is asked of the player is to push the analog stick, moving the avatar forward. Indeed, the skill set she has nurtured throughout is rendered obsolete within the Holocaust landscape and suddenly the logic of gamic functions are turned upside-down. While it may seem appropriate that 'Holocaust gameplay' would avoid a combative spectacle, we are left wondering what productive work is left to do and why the camp is not presented as a traditional cinematic cut-scene?

Advancing upon Ian Bogost's theory of "procedural rhetoric" (2006), I argue that it is precisely the gameplay mechanics which issues symbolic arguments about engaging with Holocaust memory. The processes, structures and rules of the game communicate to the player that she cannot *play* within the camp landscape and the rules of engagement have changed. As Bogost proposes, games can issue persuasive

arguments through the rules of experience, and in this case, the decline in the possibility space can be physically experienced or *felt* by the player. On the one hand, this paradoxically reinforces the Holocaust gaming taboo, but on the other, it also deliberately undermines the player's expectations that were to play in some capacity. In essence, the game breaks "from its supposedly primary role as entertainment software and becomes social commentary" (Bogost, 2006, p.127). Bogost continues, "our experiences construct mental models of the simulation that converge on an interpretation based on what the simulation *includes* and what it *excludes*" (2006, p.104) (italics in the original). The mechanical organisation of the text here breaks with the traditional procedural and structural rules of FPS gameplay prompting the player to question what ideological assumptions are embedded within the underlying model? To be clear, "all simulations are subjective representations that communicate ideology" (Bogost, 2006, p.103).

Advancing on reader-response theory and post-structuralist approaches to texts, I place emphasis on the player's ability to interpret the video game as an invitation to engage in critical Holocaust memory practice outside of the game itself. I underscore the importance of their embodied responses to the (re)configurations and structural rules of the epilogue and in forming their own readings and thus, experience of witness. However, such conclusions are not derived purely on a phenomenological level but are informed by representation and the player's own "cultural repertoire" (Storey, 2006) of the Holocaust in the popular imagination. Devoting particular attention to cinematic intertextuality, the following section follows Errl's observation that "film seems to have become the leading medium of popular cultural memory' (2008, p.395). Tracing the surge in popularity of World War II gaming back to the early 2000s (with the advent of the FPS), Pfister concurs

with Errl, and highlights some prominent examples including *Medal of Honour* (with 13 sequels) and *Brothers in Arms* suggesting, after Facchini (2016), that the success of these games were in part due to a "ongoing remediated 'synergic chain' of novels, movies, TV series and digital games, all referencing each other" (Pfister, 2020, p.273).

5.4 While America watches: intertextuality in *Call of Duty: WWII*

In order to unpack the epilogue further, then, we need to consider how both the game and the player are informed by important cultural texts that shape our understanding of the Holocaust in (American) memory. Working backwards, I want to spend time considering the cut-scene which marks the beginning of the epilogue before 'play' resumes in the camp setting.

Clearly alluding to the archival footage and atrocity photographs captured by the Allies upon liberation, monochrome (fictional) photographs begin falling onto an animated map as Daniel's voiceover states "we searched camps along the way. I thought I knew what cruelty was. I didn't know anything". As discussed at length in the preceding chapter, these ubiquitous images not only dominant the visual canon of the Holocaust but have become so ingrained in the popular imagination that they shape our expectations about visiting former sites of Nazi persecution (which I will return to below). More specifically, I wish to draw the reader's attention to two milestones in popular culture; *Saving Private Ryan* (Spielberg, 1998) and *Band of Brothers*, specifically, episode 9, *Why We Fight* (Frankel, 2001) (taken from Capra's 1945 series of the same name).

It is useful to remind the reader that Steven Spielberg is a key figure for directing *Schindler's List* and subsequently creating the USC Shoah Foundation Institute for

Visual History and Education that has been prioritised within the first half of this thesis. Significantly, Spielberg also directed *Saving Private Ryan*, acted as executive producer for *Band of Brothers* and created the storyline for World War Two video game, *Medal of Honor* (1999, DreamWorks). Shandler goes so far as to state that Spielberg is "the most prominent public figure in America associated with Holocaust memory" (1999, p.212). In his book *War Cinema: Hollywood on the Front Line*, Westwell demonstrates how *Band of Brothers* "forms an aesthetically-and-thematically-linked intertext to *Saving Private Ryan*" (2006, p.98). To be sure, these are important texts not only because "Hollywood had given up on war films when Spielberg's came along" but also because they stabilized "the cultural imagination of war", understood to be "progressive, necessary and ennobling" (Ryan, 2009, pp.96-104). Moreover, these texts are responsible for creating the "victory in defeat paradigm" (Westwell, 2006, p.94), whereby the violence directed at the Americans and their bravery in facing that violence, creates an acceptance and moral justification for war. This also cements the Platoon's makeup with mixed membership of men from Brooklyn who "fought alongside country boys from the South, and Jews and Italians [who] fought alongside mid Westerners" (Ryan, 2009, p.97). This is important for our purposes, because I argue that *COD:WWII* relies upon the cine-literate spectator to familiarise themselves with the platoon and adopt a "ludic attitude", that is the "will- to-play" (Genvo, 2009, p.133). This cultural exercise, then, transgresses the boundaries of cinema and entices the players to now perform as the heroic liberator or in this case, the first-hand witness (more on this below).

Sledgehammer Games' Michael Condrey confirms, while designing the camp for *COD:WWII*, the designers considered "how other media set in World War II

handled depictions of the Holocaust" and thus, they were in conversation with "the military advisor for *Band of Brothers*" (Kuchera, 2018, [online]). Indeed, it's episodic structure of the War is a useful format for the video game as it condenses (and contains) the Holocaust into one section, *Why We Fight*. Employing this structure, then, the campaign works to reconnect the liberation to its War-time context whilst at the same, separates the labour camp from gameplay. In fact, the photographs introduced in the epilogue cut-scene mirror Frankel's episode, displaying in order, the discovery of watchtowers, barbed wire fencing and emaciated survivors in striped uniforms (*Fig 26 and 27*).

Figure 26 – *Call of Duty: WWII*, the cut-scene photographs mirrors Band of Brothers

Figure 27 – Band of Brothers, Why We Fight

The camp actually depicted in *Band of Brothers* is one of the Kaufering Concentration Camps which were a network of subsidiary camps of Dachau. The cut-scene in the game alludes to Dachau when Daniel's voiceover states that they searched camps along the way and "were informed of a labour camp three hours East" (Berga is geographically situated three hours East from Dachau). In fact, the epilogue displays a photograph of the survivor pointing and sharing this information with the platoon which visually echoes the survivor in *Band of Brothers* who does the same (*figs 28 and 29*). Once again, the game gestures to the Holocaust by alluding to the liberation of European Jewish victims within well-known concentration camps.

Figure 28 – Call of Duty: WWII, a prisoner points to Berga (visually echoing a prisoner in Band of Brothers)

Figure 29 – Band of Brothers, a prisoner points to another camp

Before the platoon stumble across the camp in *Band of Brothers*, a soldier questions why the Americans are in the War and as Ramsay identifies, “the episode offers itself as an answer by rearticulating the cultural memory of the US citizen soldier”

as “liberator of the oppressed and defender of democracy” (2015, p.143). As many scholars have persuasively argued the Holocaust in the American imagination is the “last good war, the last moment in our collective memory as a nation that we were rescuers, heroes, unreservedly good” (Schweber and Findling, 2007, p.2). It follows that if the designers of *COD:WWII* model the epilogue on *Why We Fight*, then the game also plays a role in perpetuating such rhetoric.

Crucially, however, there is a key difference in the nature of the liberation in the game. The Allied soldiers in *Band of Brothers* liberate Jewish survivors who meet them with overwhelming relief and adoration, whereas, in contrast, the platoon in *COD:WWII* arrive too late, to find only corpses, empty barracks and burning debris. I suggest, then, that the player’s “cultural repertoire” (Storey, 2006) acts as a weight on their shoulders as they embody the national stance through playing Daniels. Irrespective of whether they have a sophisticated understanding of history, they enter the camp expecting to perform the role of saviour or at the very least *do* something. Instead, the player is not the hero but witness to absence. As discovered earlier, she is not only visually witnessing an empty landscape, but she also embodies this absence through her actions in relation to the game world. Again, the player feels a decline in agency, she may attempt to run, draw a gun, or even skip the epilogue entirely, but the game disallows these actions.

As Cole observes in relation to the USHMM, the ‘story of America as liberator and refuge is tempered with critical self-reflection on American inaction and indifference’. He continues, ‘the failed Evian Conference in 1938, the turning back of the SS *St. Louis* from US shores and the vexed question of the Allied failure to bomb Auschwitz’ are not overlooked (2014, p.141). I go on to argue below that this ‘critical historiography’ (Cole, 2014, p.136) also finds voice within the game’s

epilogue which positions the player as the contemporary national witness who is encouraged to judge former inaction to recognise their "response-ability" (Tait, 2011) for memory in the future.

5.4.1 Photographing the Liberation (again?)

These (fictional) black-and-white photographs of liberation are not only included in the cut-scene but prominently feature within the walk-through of the camp. Recall that upon entering Berga, Daniel is forced to follow Stiles into the barracks. Peering around the corner to discover bunks laden with dead bodies, Stiles states, "these were our guys", to which Daniel's replies, "take out your camera, the world's gotta know". The shutter sounds aloud as the monochrome image fills the screen (*fig 30*). Upon leaving the barracks the squad discover two dead prisoners tied to wooden poles and further on, the gallows. Stiles takes two more photographs and (still behind him), Daniel's exclaims, "the Nazis have murdered our boys in cold blood. And no fire in hell could burn away the stain".

Figure 30 – Call of Duty: WWII, black-and-white photograph captured within the barracks

Not dissimilar to *The Liberaiton* AR experience, then, the epilogue asks the player to follow in the footsteps of the liberation photographer. I argue that this is primarily why walking is the only pace (and action) permitted within this space and why these photographs become a narrative device within the game itself (outside of the cut-scenes). Without the opportunity to physically click the shutter function themselves, the visitor/player is instead invited to rewalk and reframe the images, remaining at a critical distance. Indeed, "the image is an act and not a thing" (J.P Sartre, 1936).

By extension, this scenario could be compared to the experience of visitors to the USHMM who first encounter the photograph of liberating forces staring at a pile of corpses found within Ohrdurf Concentration Camp. As Cole observes, upon confronting this photograph, visitors "join the servicemen caught by the camera on the other half of the pyre, staring with disbelief" (2014, p.140). The witnessing apparatus parallels that of the USHMM, as the player too, is momentarily positioned as first-hand witness amongst the liberating forces.

Inside of the digital camp, then, the player, like the visitor at Dachau, is also "obligated" to "reread" and "recode" (albeit fictional) images of the liberation (Didi-Huberman, 2011, p.94), which have been historically overlooked and cast aside in cultural American memory. Highlighted explicitly through the characters' dialogue, the epilogue incessantly draws attention to the specificity of American suffering and the marginalised story of the American GIs sent to Berga. To be sure, the amplification of the black and white photographs expands this motif beyond the use of Holocaust iconography generally and frames this as the "American history of liberation *and* as the most un-American of crimes" (Cole, 2104, p. 139).

5.5 (Re)Writing the Hollywood happy ending

The closing frame of Berga sees Pierson pointing toward the forest as he realises the remaining prisoners have been led on a march out of the camp. Daniels, still in pursuit of Zussman, runs through the forest. I must now "respond quickly to on-screen button prompts in order to make the scene unfold in a certain way" (Klevjer, 2014, p.6). Termed a "quick-time event", this is a form of interactive cut-scene that Klevjer describes as "playable real-time cinematics" (2014, p.106). Upon finding Metz holding Zussman at gunpoint, I am instructed to shoot (click R1) which kills Metz (in slow motion) and enables the final cut-scene of the game that sees Zussman recovering in a hospital bed and Daniel back at base revealing in victory.

Beyond the generic Hollywood happy ending (for which *Schindler's List* is heavily criticised), this scene has even greater significance if we consider the representation of Jewish American GI's in cinema more generally. Eberwien identifies three key moments in *Saving Private Ryan* where the Holocaust is invoked through the Jewish character, Mellish. After battle, as he encounters "German prisoners of war, he takes a knife from one and says he'll use it to cut Challah. Later, he grasps the Star of David he wears around his neck and flaunts it at the German POWS, saying, 'Juden! Juden!'" (2007, p.132), (notably connected to his dog tag) and finally his death. Taublin reads Mellish's death as a "horribly disturbing scene in which a German solider disembowels a Jewish American solider while an all-American boy cowers in fear". She maintains that this scene "is forced to carry the entire weight of the Holocaust" (Taublin, 1998, p.113). Erenhaus goes further and states that Mellish is "the vehicle through which viewers can engage the Holocaust and participate in the construction of its memory as an American phenomenon". He contrasts Mellish with fellow solider, Corporeal Upham, whom Erenhaus describes as "emblematic of a

national weakness: an American Christian incapable of acting despite hearing the cries of a Jew" (2001, p.325). By extension, Upham's inability to act, sparks America's devotion to the memorialisation of the Holocaust: "guilt for not having acted, for not having acted soon enough, for not having done enough" (Erenhaus, 2001, p.328).

Mellish resembles Zussman's character in the game in various ways, as both are secularized Jews and are assimilated American soldiers. However, the crucial difference is that in *COD:WWII*, the Americans' *are* able to act and rescue the Jewish victim from Nazi nefariousness by killing the leading officer in the depths of the forest. Almost written as an alternative scene, Upham who clutches his gun paralyzed, is now reimagined as Private Daniels (the player) who, at the crucial moment, the life-and-death struggle between Jew and Nazi, does intervene and saves Zussman's life. The frustration and shock the American spectator of *Saving Private Ryan* is forced to endure is partly relieved through their own *imagination*, believing that they have the ability to right the American's wrong. This explains why the death of Metz has to be presented as an "in-game cut-scene" which includes "player-controlled marionettes" (Klevjer, 2014, p.13) rather than a standard cinematic cut-scene. To be clear, while the game provocatively evokes films such as *Saving Private Ryan* (and comments on American inaction more widely), it needs to allow the player the gratification of changing the narrative and actively 'pulling the trigger' themselves. Employing Gee's term "projective beings" (Gee, 2008, p.260), one can understand Daniels as a device through which the player *virtually* (recall chapter one and two) performs their desire to rewrite the narrative and rectify a nation's mistakes. Indeed, the shot in the forest (aside from running) is the only action permitted and unfolds in slow motion, which on the one hand, emphasises the

artificiality of the moment – even the dream-like quality - but also indicates the overall symbolic significance of defeating Metz and saving Zussman.

Inevitably, however, shooting Metz is the only way the game continues, it is an "illusion of choice", a kind of "closed interactivity" (Cheng, 2007, p.18) where the player's choice (seemingly autonomous) match those of Daniel's motivations (to save Zussman) which brings about narrative progression. In this way, the epilogue encourages interactivity, but it does not grant player agency within the gameworld itself. To remind the reader of the distinction, Grodal and Murray stress that actions (such as pushing buttons) does not constitute agency, which by contrast, "goes beyond both participation and activity and into the realm of narrative and player experience" (Murray, 1997, p.128). In other words, "our actions must make a difference" (Grodal, 2009, p.174). Cheng, however, contends, that the paradox of "the narrative framework is that at the same time it constrains true agency, it still creates the conditions for the actions of the player to be meaningful within a mythical fictional universe" (2007, p.18). Indeed, as this thesis has sought to prove, agency emerges in my own ability to pay attention and to imagine. As we will see below, the forest setting itself adds another dimension to the mythical universe Cheng describes.

5.5.1 Final justice in the Forest

The epilogue can clearly be broken down spatially into two Holocaust landscapes; the (labour) camp and the forest. Historians have articulated how forests, "particularly of central and eastern Europe, have long been sites of both real and mythical evasion' (Cole, 2014, p.666). As Cole highlights, historiography shows that like ghettos, forests are Holocaust landscapes that hold stories of resistance

about the "estimated fifty to eighty thousand Jews who hid" within them (2014, p.667). They were an "important socio-spatial arena for agency and power relations between various agents including partisans (both non-Jewish and Jewish), peasants, small Jewish groups-in-hiding, and Nazis" (Weber, 2008, p.35). Indeed, the forest locale features in several cinematic representations of resistance including *Defiance* (Zwick, 2008) which follows the well-known story of the Bielski partisans. In his reading of *Defiance*, Lipkin understands "action in the film as a product of setting" (2011, p.84). Following his observations, I suggest that killing Metz in *COD:WWII* must also be understood within the context of the woods. Shaping my interpretation around both testimony and scholarship concerned with the forest specifically, in this final section, I hope to tie together my observations of prohibited playing within the quasi-sacred camp landscape and the necessity of player action in the final scenes of the forest.

Advancing upon Weber's understanding of the forest as a "liminal space" in which "pre-war values, belief and cultural norms no longer applied" (2008, p.37), I extend his ideas to suggest in the game too, the forest functions as a liminal space of play. Within this setting, the newly established rules are upheld and encouraged through "player-controlled marionettes" (Klevjer, 2014, p.13). Indeed, the liminal quality of the forest is echoed in Sonia Orbuch's testimony as upon joining a large partisan group in the Lubieshov forest, or what she terms the "forest republic", she "discovered a 'third space' in the Forest between Nazi-occupied and Soviet-occupied territory, where she and her family experienced their first – and more significant – liberation" (Cole, 2016, p.45). The game, then, presents the forest as another liminal Holocaust landscape existing both inside and outside of the gameworld, a kind of in-between play (rendered through the form of interactive cut-

scene), through which the player performs acts of resistance against the Nazis. Just as forests became "the stage for the fugitives survival practices – the material, philosophical and spiritual platform for their agency" (Weber, 2008, p.37), it now becomes the player's stage to bring about final justice.

A "'story-game', as Aareth calls it, offers complete cultural configuration of a world – as much as it offers a specific ludic challenge" (Klevjer, 2002, p.197). This make-believe redemptive scene in *COD:WWII* which ultimately sees a Nazi get his comeuppance, is also a form of revenge fantasy, echoing films like *Inglourious Bastards* (Tarantino, 2009) in which Hitler burns in a cinema and Hans Landa (the central Nazi villain) receives a swastika carved into his forehead. In fact, the epilogue echoes the final scene in *Inglourious Bastards* both thematically and through its mise en scène, as the all-American protagonists (both from the state of Texas) are found standing in the depths of the forest holding the central Nazi villain at gunpoint (*fig 31*).

Figure 31 – Call of Duty: WWII, FPS Shot as final action in the game

Figure 32 – Inglourious Bastards, holding the central Nazi villain at gunpoint in the forest

Just as Lipkin acknowledges the particular significance of the trees within *Defiance* for (among other functions) providing cover for attacks, a tree branch also enables cover for Daniels as he ducks down, pulls back the branch and fires his weapon. In taking the single fatal shot, the player performs "the propriety of corrective action" within the forest (Lipkin, 2011, p.84). A happy ending and/or revenge fantasy, that perhaps functions as an inverse to the well-known adage within the Talmud – subsequently recited during the final scenes in Schindler's List (and engrained into the archway of the former synagogue at The National Holocaust Centre and Museum) – "whoever saves one life, saves the world entire". In the liminal, upside down, third space within the forest, it seems that whoever shoots one Nazi, brings about final justice or as Orbuch found, the most significant liberation.

5.6 After Berga: historical context

In light of my analysis, the choice of Erwin Metz as representee of Nazism cannot be overlooked. Historically, Metz deserted his post and the remaining Berga prisoners, hoping to escape. To no avail, Metz was captured by the Allies and sentenced to death. However, due to the changing attitudes of government and defense at his trial, Metz was sentenced to twenty years imprisonment instead. After further review, his sentence was reduced to fifteen years and after "only serving six", Metz was released and able to return to Germany (Whitlock, 2005, p.216). Throughout his trial, Metz protested his innocence, claiming "he did his utmost to be kind and generous" to the prisoners. He went so far as to place blame on the U.S medics for the soldiers' ill health, suggesting they stole food from the sick - particularly poignant as Zussman's character is also the medic in the game. However, evidence proved that Metz was guilty of presiding over "the death of almost fifty American soldiers" on the march, "adding to the two -dozen dead at the Berga camp" (Cohen, 2005, p.200). Yet, the only evidence on the record "connecting him with the killing of an American [Morton Goldstein] involved an escape incident" and thus, a prison sentence was deemed appropriate punishment (Whitlock, 2005, p.218).

During this time, an attorney from Manhattan, Chris Vogel, tirelessly contacted survivors and collected signatures for a "petition he sent to President Truman, secretary of state George Marshall and Defence Secretary James Forrestal" (Drash, 2010, [online]). Vogel was uncle to one of the victims, and was outraged survivors were not permitted to attend the trials which effectively enabled the sentence of these perpetrators to be commuted. Yet justice never came and as Whitlock states

"the victims of Berga never got their day in court" (Whitlock, 2005, p.220). The significance of this can be framed within reference to the discussion on Nazi war trials (in chapter one), which not only had a huge impact on the visibility of survivors but enabled them to feel heard and seen on a world stage.

As Cole (2014) observes upon entering the USHMM from the Raoul Wallenberg Place entrance (closest to the Jefferson and Lincoln memorials), the visitor is invited to read the Declaration of Independence as well as the words of George Washington to the Hebrew congregation in Newport, which states that "the government of the United States…gives to bigotry no sanction, to persecution no assistance". Prefacing the visitors' encounter with the Holocaust, which is "nothing less than the very anthesis of the values enshrined in these documents penned by the founding fathers celebrated a short walk away" from the museum (Cole, 2014, p.139). Framed in similar opposition is the introduction of Erwin Metz when he is stood facing the U.S soldiers and calls to "separate the Jews" (recall *fig 24*). Zussman's response and declaration "We're American's. Period" carries the weight of – and signals to, the values enshrined within the Deceleration of Independence. Thus, national antipathy to the Holocaust is framed not only in the positioning of the men (as they stand in a direct faceoff) but is also reinforced in the dialogue itself. To stress the point, we can recall that notice of Metz's case was given to several political officials including President Truman, and yet the government of the United States stood idly by as Metz regained his "life" and "liberty" and caused "American values to be turned on their head" (Cole, 2014. p.139).

More troubling still, the U.S military forced the surviving Berga soldiers (approx. 160) to sign an affidavit denying their experience. As Anthony Acevedo states, this

document was saying “we never went through what we went through. We weren’t supposed to say a word” (Drash, 2010, [online]). As Finkelstein makes plain, bigger political undercurrents were stopping America from acknowledging the events of the Shoah, primarily, The Cold War, “which meant people ‘forgot’ the Nazi Holocaust because Germany – West Germany by 1949 – became a crucial post-war American ally in the US confrontation with the Soviet Union” (Finkelstein, 2003, p.14). Thus, the government feared that if the American population found out what had happened to their own soldiers at the hands of the Germans it would cause ill feeling toward their new ally. One only needs to consider the literature on this topic to get a general sense of negligence, with titles including, *American P.O.Ws of World War II: Forgotten Men Tell Their Stories* (Bird, 1992), *Forgotten Victims: The Abandonment of Americans in Hitler’s Camps* (Bard, 1994), and *Given Up For Dead: American G.I’s in The Nazi Concentration Camp in Berga* (Whitlock, 2005).

Fifty years later, in September 1995 “the governments of the United States and the Federal Republic of Germany reached an historic agreement on the payment of reparations” for U.S survivors (Ridgeway, 2001, p. 796). Germany allowed a two-year time period for the U.S to identify potential cases that adhered to three criteria: that the survivor was a “U.S citizen at the time of their Nazi persecution”, secondly, that they “were interned in a recognizable concentration camp”, and finally, that “they have received no prior compensation from the German government” (Ridgeway, 2001, p.772).

After much publicity and aid from major Jewish organisations, 250 claims had been filed by 1996. The Holocaust Claims Program conveniently coincided with the NBC’s broadcast of *Schindler’s List* and after further outreach initiatives, “approximately 1,500 cases were filed” (Ridgeway, 2001, p.774). Ridgeway’s

seminal essay titled *Justice for the forgotten Victims: U.S Survivors of the Holocaust* (2001), details how the FCSC commission went to great lengths to ensure these survivors received help throughout the legal process and dealt with these cases with unprecedented care and empathy. Nonetheless, what one can determine from this research is that the majority of the Berga soldiers saw no such compensation under this act, because Germany agreed to "only compensate those who were interned in facilities officially designed as concentration camps" (Ridgeway, 2001, p.778). These proceedings, then, serve to prove the proximity this particular labour camp has to the events of the Holocaust but also attests to its remove. Ultimately, the judicial system at least, positions camp Berga within the wider context of the War.

In light of this post-War story, it can be interpreted that shooting Metz is not only about rectifying America's mistakes of inaction during the War itself, but also points the fingers at the governments mistakes during the post-War years to bring about justice. At the same time, however, it cannot be overlooked that the game also subscribes to a 'Hollywood happy ending' which not only reinforces a sense of American "military-romanticism" (Westwell, 2006, p.115), but also undermines the reality of the Holocaust by privileging a story of survival and redemption. Just as Cole observes with the USHMM museum, by the end of the game, the self-critical reflection on past American inaction and indifference "is joined with a less self-critical nationalist discourse which might even be seen to be celebratory" (2014, p. 143). So where does this leave the player?

5.7 Simulation fever

Central to video game theory is Huizinga's ideas of "the magic circle", a safe place of play "where one can perform an action without the fear of real consequences"

(Bogost, 2006, p.134). While is it debatable what constitutes “real consequences” in this context of shooting down Nazis, it has long been established through effects theory that digital texts can influence and affect us in profoundly subjective ways. As has been made clear, *COD:WWII* presents a narrative of World War Two which is in proximity to the Holocaust and closes down the possibility space or rather, the safe place of play. Indeed, the epilogue suggests World War Two memoryscapes, such as labour camps, cannot be played with at all. Bogost challenges Huizinga’s magic circle when he introduces “the simulation gap”. He argues, “games provide a two-way street through which players and their ideas can enter and exit the game, taking and leaving their residue in both directions” (2006, p.135). This gap creates “simulation fever” which is the discomfort from the game world and the real-world spilling into one another. The epilogue, then, appears as a virtual manifestation of “the simulation gap”, the Holocaust landscapes exist as liminal spaces not quite that of the gameworld or the material world but somewhere in-between. Inevitably the epilogue has such pontential as Bogost states, “the crux of this experience takes place where unit operations meet subjectivity, in the crisis of simulation fever” (2006, p.129).

Upon release, *COD:WWII* was rendered by fans and critics as a “gutless view of the Holocaust which trivialises history” (Rosenberg, 2017). In light of the textual analysis above, it is understandable that some players thought the game completely overlooked the Holocaust as it engages with an unfamiliar narrative pertaining to the American G.I experience rather than presenting the persecution of European Jewry or the liberation of better-known concentration camps. Beyond this, I posit that the players may have felt the decline in gameplay and acknowledged that the epilogue defies traditional video game logic in order to make subjective ideological

arguments about (not) playing with Holocaust memory. As Bogost states "since games are commercial works focused on 'fun' and measured by commercial success more than critical acclaim, criticism in popular media tends to focus on subjectivity's lowest common denominator: player enjoyment" (2006, p.131). Rather, the epilogue invites the player to engage in serious self-critical and self-reflexive witnessing work which is perhaps reflected within the gaming community's overall disregard for the game.

Bogost's work on the reactions to the game *September 11* is an interesting case study by comparison. He observes how a particular player, expressed outrage that in the game the terrorists don't perform any actual terrorism (2006, p.131). Noting that the game instead wants to discuss the responses to terrorism, Bogost shows how the player "wears simulation fever on his sleeve" as his expectations of the game are not met, leading him to conclude that the game's failure to "render acts of terrorism" is a "kind of revisionism: terrorism never really happened" (2006, p.132). Similarly, players of *COD: WWII* express their outrage that the game presents an "antiseptic presentation" (Kuchen, 2017) in which the Holocaust is "barley mentioned" (2017, Forward [online]). Mirroring the player's assumptions, much of the gaming community were led to conclude that this game too, is a kind of revisionism that trivialises the Holocaust on several fronts. Of course, as this research has sought to prove, and as Bogost makes clear of *September 11*, the games are more concerned with the responses to trauma rather than the events themselves. If "simulation fever is the struggle between the omissions and inclusions of a source system and the player's subjective responses to those decisions", then it is fair to say that *COD:WWII* players have also shown "how very ill [they] are with the condition" (Bogost, 2006, p.132).

6. Conclusion

> What is really important is that memory is not a passive depository of facts, but an active process of creations of meaning (Portelli, 1991, p.52)

In the 1990s Lawrence Langer outlined a "second stage of Holocaust response" in which a transition occurs, "moving from what we know of the event (the province of historians), to how to remember it, *which shifts the responsibility to our imaginations* and what we are prepared to admit there" (1991, p.13) (italics added). As Popescu has highlighted, however, scholarly discourse of the 1990s and the early 2000s considered "imagination as an assault on both the history and memory of the Holocaust" (2015, p.1). In fact, memory was considered the opposite to imagination by those most cautious about the ethics of representation and growing concerns around Holocaust denial. Others dismissed imaginative discourses on the basis of Theodor W. Adrono's apparent prohibition of artistic license, garnered from his much cited (and misunderstood) 'dictum': "To write poetry after Auschwitz is barbaric" (1963). In fact, Klaus Hofmann's detailed investigation into Adorno's writing on this matter, argues Adorno considered art as "indispensable" (2005, p.186) and that entangled within his philosophy is an "urgent plea for the persistence of poetry". Hofmann summarises; "poetry will, according to Adorno, have to persevere in order to resist the forces to which it has succumbed" (2005, p.194). This sentiment around the perseverance of expression *in spite of* the unfathomable nature of the event brings us full circle to Georges Didi-Huberman's work which opened this thesis. To remind the reader, he urges us to "not to invoke the unimaginable" but rather to "imagine it until the very end" (2003, p.3).

Inspiring much of the research form which this thesis advances (Popescu and Schult, 2015; Walden, 2019), Didi-Huberman's writing is most instructive when it places Holocaust memory work within a moral horizon. Indeed, he argues that imagination is a "response we must offer as a debt" (2003, p.3) to those prisoners who tried to document and photograph the events of the Holocaust as they unfolded. Fundamentally, this sentiment can be extended to include all those who have attempted to communicate their experiences to post-Holocaust generations for more than seven decades. Principally, those survivors, who, to recall Primo Levi (from chapter one), have a duty to speak on behalf of those who perished (1989, p.83). As the case studies (particularly in chapters two and four) demonstrate, we are called upon to actively take part in a chain of memory, a chain of witnessing relations. Launching from this understanding, this thesis has investigated how digital Holocaust memory practices might offer possibilities for discovering this moral horizon anew. Primarily focused on the notion of digital Holocaust witnessing, this work foregrounds the imagination as a central conduit for *doing* memory practice and thus, taking greater responsibility for Holocaust memory as we prepare to enter the post-survivor age.

Starting with four principal research questions, this thesis set out to investigate: what is both new and not new about digital Holocaust memory practice? How might existing projects allow us to develop a concept of digital Holocaust witnessing? What role do (new media) technologies play in Holocaust memory? What are the affordances for moral response? Tracing the shift from the "The Era of the Witness" (Wieviorka, 2006) to "The Era of the User" (Hogervorst, 2020; Ebbrecht-Hartman and Henig, 2021) the opening chapter located the digital turn in Holocaust studies

within the wider shifts in museology and memory practice. Namely, the experiential and participatory turns which seek to reconfigure our relation to the past through intense interactive experiences. Proposing an understanding of the first generation of digital Holocaust memory projects as both "evolutionary and revolutionary" (Nash, 2022, p.2) then, I have argued that new media technologies offer possibilities for witnessing while remaining firmly rooted within discourses of Holocaust education, commemoration and memorialization.

Through an investigation into the positionality of the user within four different case studies, this research has discovered radically inclusive viewing positions which invite us to enact, to examine, and to explore to "act" in various ways. Indeed, I have argued that *The Last Goodbye* VR experience invites the user to imaginatively occupy the perspective of the second generation, and to virtually enter into the experience through an 'as-if' orientation, as if they are taking part in a familial return visit to Majdanek. In chapter three, it has been suggested that *Dimensions in Testimony* invites the user to perform the role of oral history interviewer in order to engage in a dialogue with Pinchas-as-database. Markedly different form the projects within the USC Shoah Foundation's digital portfolio, chapter four suggests that *The Liberation* AR application offers the perspective of the liberator, as first-hand witness to the events through a form of rephotography as reenactment. Finally, in the last section of this thesis, I moved away from the institutional focus to consider videogames. Not dissimilar to the AR app, *COD:WWII* also positions the player in the role of the liberator (albeit more problematic for its attempt to simulate the historical event as it unfolded). While this chapter has paradoxically highlighted the ways in which the video game is wedded to (American) institutional rhetoric in

various ways, it is nonetheless distinct from the other projects considered here as it presents a completely simulated world.

Fundamentally, what unites all of these case studies, is moments of disruption in the transmission and translation (Landsberg, 2015) of the experience. Inherent to the nature of digital encounters, these disturbances call attention to the project themselves (often through technological discrepancies), breaking the illusion of nonmediation. To be sure, moments of rupture manifest through the user's own interactions as they navigate their personal expectations and desires in relation to the technical capabilities of the projects themselves. Paradoxically, I have argued that it is by discovering the limitations of interactivity within these experiences, that the user is afforded agency. Indeed, they are confronted with a choice in the moment between "noticing and doing" (Miles, 2014) to continue with the experience (and therefore adhere to the rules that govern the practice) or to stop with the experience altogether (notwithstanding attempts to deliberately 'break' the technology). In these instances, then, such decisions become morally and ethically charged as the user must choose to take responsibility for the development of the experience (which as we have seen can involve intense cognitive and affective labour) or decide to turn away from suffering others (Chouliaraki, 2006).

Furthermore, these disruptions, which are often registered physically– on the user's body – as the system rejects or prohibits certain actions (to touch, to communicate, to photography, to play), encourages an "embodied contemplation" and self-reflexivity around "doing memory itself" (Walden, 2019, p.2). This tension is useful insofar as it fosters "the experience of proximity and the sense of distance that together are conducive to historical thinking and the production of historical

consciousness" (Landsberg, 2015, p.150). Moreover, as Hill reminds us, "when response is frustrated, where it cannot be enacted" emerges "a figure of moral responsibility". While we may fall short in our responsibilities (Hill, 2019, p.42), or in this case fail to comprehend the Holocaust, we nonetheless become conscious of our obligation for the future of Holocaust memory and our duty to continue to try.

In order to proceed, then, the user must call upon their imagination to realign themselves with the experience and to navigate and perform the dual witnessing relations in which these projects offer. Put differently, imagination is imperative for the attitude of witness. Of course, as with all witnessing practice, it is fraught with uncertainty and is inherently fragile. There is no guarantee the user will register or translate the experiential encounters in these terms, nor is there any certainty that they will feel compelled to respond in the ways outlined above. Yet it is precisely within this this framework that I locate digital Holocaust witnessing as an intricately entangled practice between the human (body), machine and subject.

6.1 TACHELES: The Heart of the Matter

To mark Holocaust Memory Day 2022, the Goethe-Institut (London) organised a screening of a new documentary film titled *TACHELES: The Heart of the Matter* (2021) and invited me to chair the subsequent Q&A session with one of the two directors, Jana Matthews, (co-director Andrea Schramm could not be present) and protagonist, Yaar Harell (Goethe-Institut, 2022). What struck me during this discussion is how this project brought together many of the strands of thought throughout this PhD project, particularly with regards to our responsibility for the future of (digital) Holocaust memory practice. Thus, I wish to close this thesis with some preliminary thoughts on this final case study.

The documentary, *TACHELES* (literally meaning “straight talk”), was filmed over a four year period and follows Yaar, a member of the third generation of Holocaust survivors (raised in Israel and now living in Berlin), as he attempts to make a video game about a young Jewish girl in 1940s Germany – based on his grandmother, Rina Kardisch-Zavadsky, and her experiences during the war. Indeed, throughout the film we see Yaar and his two German colleagues, Sarah Heitz and Marcel Nist, prepare storyboards as they begin to flesh out their ideas for the characters of the video game *Shoah: When God was Asleep* (*fig 33*).

Figure 33 - Tacheles: The Heart of the Matter, character designs for Shoah: When God was Asleep

Yaar’s father, Elieser Zavadsky, however, is both shocked and confused by his son’s idea to create, not only a game, but one which enables Jews to defend themselves and Nazis to act humanely. Upon asking Yaar about this, he told me it was specifically the ability to “immerse” players into a gameworld and to offer them choices which upset his father the most. To be clear, then, it is the prospect of the game, and its potential to fictionalise the experience (through the technological

affordances of the media) which triggers his father into opening up about the trauma he has inherited from his own parents' experiences. Crucially, the proposal of creating the game leads the family to travel to Plaszow, the former concentration camp (situated in Kraków, Poland), where they believe Roman, Rina's brother was murdered. Later, in a particularly emotive moment in the film, a local polish family (descendants of heroic poles who sought to shelter Rina and Roman) inform Yaar and his father, that Roman was actually taken by the Gestapo and drowned. Indeed, it is in this moment that the family begin to understand Rina's reluctance to speak on the subject as bound up in feelings of "survivor-guilt" for having not been able to save her brother (and for hiding in the near-by church the day he was taken).

Clearly, we can read this experience through the lens of "postmemory" (Hirsch, 2015) and through the framework of the familial return visitations I have discussed throughout chapter two. Indeed, many of the central ideas around reenactment and performative interactivity also find expression here as the team stay in Rina's old house in Krakow to find inspiration for the game. Most importantly, then, this project brings into focus the very *process* of creating a video game (and the subsequent documentary) which can itself be considered as a form of *doing* digital Holocaust memory practice.

Indeed, there are "subtle ludic undercurrents" (Stephens, 2021) to this process and the idea of play itself functions on multiple levels within the film. Most obviously, on a surface level, the notion of play is brought to the fore through the subject of gaming and the plans to create a Holocaust video game. On a more subliminal level, however, scenes of physical play are peppered throughout the film at important points and open up a space for working through trauma. For example, in a

particularly tense scene early on in the film, we see Yaar and his father sparring in a boxing ring (notably after having just shown his father *Wolfenstein: The New Order*) to later scenes after their journey, where we see them sparring with sticks in a much more light-hearted encounter. In fact, towards the end of the film, we see Yaar roleplaying with a sword and in the final scene of the film see him jumping into a body of water as he playfully swings off of a rope. While there is not space to carry out an in-depth textual analysis here, it is worth stressing that it is the (imagined) digital Holocaust project which leads to an encounter with history and which develops into a complex mosaic of familial return, testimony, landscape, (national) memory politics, representation and technology.

Crucially upon returning from their trip, Yaar has undergone a rite of passage and has changed his mind regarding the fate of the young boy (based on Roman) in the game as he insists he must die otherwise they risk "falsifying history". In an uncomfortable scene, we watch Yaar break the news to his Marcel that he no longer wants to show a Nazi letting Jews go free (it is implied that the figure of the Nazi in the game is loosely based on Marcel's ancestor who he believes wanted to let Jewish prisoners go). To this, Yaar's colleague responds (translated from German):

> Do you really want to play a game where we start here, sink down to an absolute abyss of shit, then find a new level and end up saying… it was all crap. The end. I mean, sorry but I'd feel like a total fool. Give people a little hope. This is not my letter of indulgence to my ancestor. That was never the plan. But you can… make up a few things.

While it cannot go unnoticed that there is an incredibly complex struggle going on over representation bound up in socio-political identities and national Holocaust memory practices, what I wish to point out here is the discussion around the process and design of the game itself. Indeed, there is a self-reflexivity about resisting our desires for narrative closure and about the fundamental tension between representation, agency and the closing down of the possibility space which have been key points of interest throughout the case studies explored above.

The game designers, then, are themselves carrying out important memory work as they are critically and consciously thinking about the positionality of the user in the game and how, through a participatory and performative encounter with history, they may encourage players to take responsibility and to carry on the chain of memory. Indeed, Yaar's forthcoming (re-envisioned) video game is one of many digital Holocaust memory projects in the pipeline, and it is hoped that this research can both inform and evolve alongside them, as we prepare to enter the post-survivor age.

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