Introduction

Memory on the Move

Lucy Bond, Stef Craps, and Pieter Vermeulen

Memory, it is safe to say, is not what it used to be. Previously thought to be anchored in

particular places, to be lodged in particular containers (monuments, texts, geographical

locations), and to belong to the (national, familial, social) communities it helped acquire a

sense of historical continuity, memory has, in the last few years, increasingly been considered

a fluid and flexible affair. In a globalized age, memories travel along and across the

migratory paths of world citizens. In a digital age, they are forwarded from cameras over

smartphones to computers and back in unpredictable loops. In the process, they redefine the

relations between different generations, as geographical and medial transfers affect the uptake

of memories by people who can no longer be said to simply inherit them. Meanwhile, the

study of memory spans and complicates the boundaries between academic disciplines,

generating a multifaceted and evolving field of research.

Memory, then, is presently conceptualized as something that does not stay put but

circulates, migrates, travels; it is more and more perceived as a process, as work that is

continually in progress, rather than as a reified object. In recent years, the transcultural or

transnational circulation of memories has moved to the center of attention. Concomitantly,

there has been a marked increase of interest in how memory travels between different media,

and specifically in the role of digital media in the production, preservation, and transfer of

memories. Moreover, as the Holocaust begins to pass out of living memory, the question of

how memories of survivors of historical traumas are transmitted to, and inherited by,

members of later generations has become another area of intense inquiry. Finally, memory

studies appears to be moving toward greater interdisciplinarity, or, at least, enhanced awareness of the necessity or desirability of cross-fertilization between memory research in the humanities, social sciences, and natural sciences.

Attentive to these shifts, this volume responds to the need to nuance and develop our understanding of the dynamics of memory in theory and in practice. It does so not by focusing on one discrete form of mobility, but by interrogating the relations between what we see as the four most salient dimensions of the mobility of memory: its transcultural, transgenerational, transmedial, and transdisciplinary drift. As the many echoes within and between the different sections of the volume make clear, these four dimensions inevitably intersect with and inflect one another: new social and digital media, for instance, facilitate the transcultural travel of memories, and these transcultural memories in turn change the way the past is transmitted to later generations—who, it goes without saying, constellate media in very different ways than their elders. The upshot of these complex interactions is that the field of memory studies itself needs to find new methods to track that new mnemonic reality: in the terms we propose in this volume, it needs to take on the transdisciplinary challenge of memories on the move.

If we have yet decided to divide the volume into four sections, each naming one particular dimension of mnemonic mobility, this is only to indicate the particular dimension the contributions to that section have chosen to foreground. In actual fact, as all chapters make clear, none of these dimensions can be discussed in isolation from the other three. Together, the four sections suggest that the various modes of memory's unbounded character are best considered comprehensively and in an integrated manner. They develop concepts and vocabularies for mapping the interactions between these dimensions, without—and this is a crucial point to which several of the essays in the book respond—blurring all distinctions between media, objects, and practices, and without abandoning the past to the

indistinctiveness of a frictionless digitized and globalized memoryscape. Memorative activity today, as this volume shows, is considerably more plural and recalcitrant—and therefore more interesting: our title, *Memory Unbound*, does not aim to declare the end of all local and specific attachments; it rather names a commitment to tracking the unpredictable mobility of objects and practices that, now that they are widely considered to be un-bound, refuse to be re-bound. Ultimately, we contend, attention to the manifold ways in which memory moves across cultures, generations, media, and disciplines is indispensable for the study of memory today. In this introductory chapter, we present the four organizing dimensions of mnemonic mobility by locating them in ongoing discussions in the field of memory studies and by situating the different essays in the volume as interventions in these debates.

1. Transcultural Memory

The chapters in the first section examine what is arguably the most familiar mode of mnemonic mobility: the transmission, circulation, mediation, and reception of memory between and beyond ethnic, cultural, or national groups. Analyses of this dimension manifest a significant departure from orthodox models of memorative practice and theory, which have frequently located memory as the geographically and culturally bounded property of particular collectives (Halbwachs) or communities (J. Assmann), typically delineated by the borders of the nation-state as modernity's privileged cultural unit (Nora).

Commemorative practices have long played a significant role in establishing the "imagined community" (Anderson) of the nation. As Katharine Hodgkin and Susannah Radstone assert:

in nationalist movements and in achieved nation states alike, the appeal to memory

articulates the narrative of the nationalist past, and enjoins its subject to recognize and

own it … Memory is thus at the heart of nationalist struggles, transmitted from one

generation to the next as a sacred injunction … it is also one of the major mobilizing

forces in the modern nation state. (169)

Hodgkin and Radstone suggest that the topography of national memory construes a

"geography of belonging" (169), or, as Duncan Bell conceives it, a "mythscape" that

"simplifies, dramatizes and selectively narrates the story of a nation's past and its place in the

world: a story that elucidates contemporary meaning through (re)constructing its past" (75).

Pierre Nora contends that such mythscapes typically comprise a constellation of fixed sites,

such as monuments and memorials, at which "memory crystallizes and secretes itself" (8).

Nora further alleges that, following the "acceleration of history" that accompanied the

"movement towards democratization and mass culture on a global scale" (7), such "lieux de

mémoire" ("sites of memory") have offered an artificial and impoverished substitute for the

"milieux de mémoire" (genuine "environments of memory") that had previously provided a

sense of historical continuity for "societies that had long assured the transmission and

conservation of collectively remembered values, whether through churches or schools, the

family or the state" (7).

   Lamenting the paradoxes of a "historical age that calls out for memory because it has

abandoned it" (12), Nora suggests that the "conquest of memory by history" is the byproduct

of "our hopelessly forgetful modern society, propelled by change" (8). Highlighting the

destabilizing properties of globalizing capitalism, accelerated technological development, and

cultural postmodernism, Andreas Huyssen similarly asserts that "as the territorial and spatial

coordinates of our … lives are blurred or even dissolved by increased mobility around the

globe" (*Twilight Memories* 7), contemporary society has entertained a collective search for a mode of "temporal anchoring" able to lend an illusion of security to a "culture [that] is terminally ill with amnesia" (*Twilight Memories* 2). Both Nora and Huyssen thus implicitly associate the rise of the recent "memory boom" in the academy, and the related cultural "memory industry" (Klein 127), with the decentering of the nation as the locus of historical consciousness in the era of globalization. However, as Huyssen expands, there is no going back to the past we thought we knew; instead, rather than reinscribing the national geographies of belonging alluded to by Hodgkin and Radstone, "the mnemonic convulsions of our culture seem chaotic, fragmentary, and free-floating. They do not seem to have a clear political or territorial focus" (*Twilight Memories* 7). Accordingly, "[t]he form in which we think of the past is increasingly memory without borders rather than national history within borders" (*Present Pasts* 4).

This is not to suggest that national memory cultures have disappeared—nor, indeed, that national memory was ever as stable and self-contained as traditional theories of memory tended to assume. As the highly patriotic commemorative discourses surrounding September 11 in the United States suggest, to name just one recent example, the notion of national belonging continues to exert a significant influence over contemporary memorial practice (Bond; Simpson). The idea of the nation as a fairly homogenous cultural unit retains its traction as a unifying trope in the wake of traumatic events, especially where commemorative endeavors are reliant on federal funding and governmental support for their realization. However, increasingly, even where they advance a national(ist) agenda, memory politics tend to be intrinsically globally-oriented. As a number of scholars have argued, in the post-Cold War period, memorative discourses have emerged as the cornerstone of a new geopolitical community, which has positioned a public commitment to *Vergangenheitsbewältigung,* or coming to terms with the past, as a prerequisite for a nation's membership of international

institutions such as the EU and the UN and thus as the key to participation in the global political arena (Levy and Sznaider; Sierp).

Moreover, a growing critical consensus contends that interpreting memory through the normative framework of the nation obscures the hegemonic and often homogenizing properties of national memory regimes, occluding the ways in which memories may travel across geographical or cultural boundaries, and marginalizing the experiences and histories of particular individuals or collectives. Accordingly, the recent "transcultural turn" (Bond and Rapson) in memory studies has sought to highlight the elisions and biases inherent in national memory by exploring the ways in which diverse media and forms of memory may circulate between and beyond the borders of the nation-state, variously foregrounding the "cosmopolitan" (Levy and Sznaider), "multidirectional" (Rothberg), "travelling" (Erll), "palimpsestic" (Silverman), "transcultural" (Bond and Rapson; Crownshaw), "transnational" (De Cesari and Rigney), "global" (A. Assmann and Conrad), or "globital" (Reading) dynamics of memorative theory and practice. All of these terms will be critically evaluated throughout this volume, as it tries to fine-tune our vocabularies for capturing the multifaceted mobility of memory.

Despite the important methodological and disciplinary differences between these approaches, the exponents of the transcultural turn cumulatively espouse a number of key principles: firstly, they contend that memorative discourses can provide the foundation for global human rights regimes; secondly, they privilege comparative, rather than competitive, interpretations of the past; thirdly, they shift attention from memory's static location in particular sites and objects to the dynamics and technologies by and through which it is articulated. This makes clear that the study of transcultural memory can never be isolated from an understanding of memory's transmedial mobility, as the many echoes between the different sections of this volume make clear.

A number of the ideas associated with the transcultural term have already had a significant impact on cultural memory research. Advocating "a new cosmopolitan memory … that harbours the possibility of transcending ethnic and national boundaries" to provide "the cultural foundation for global human rights dynamics" (4), Daniel Levy and Natan Sznaider assert that "national and ethnic memories are transformed in the age of globalization rather than erased … They begin to develop in accordance with common rhythms and periodizations. But in each case, the common elements combine with pre-existing elements to form something new" (3). Arguing that the histories of "the Holocaust, slavery, and colonial domination are in fact interconnected, and by refusing to think them together (except in a competitive manner) we deprive ourselves of an opportunity to gain a greater insight into each of these different strands of history" (Craps and Rothberg 518), Michael Rothberg similarly rejects a "zero-sum" model of memory as a "struggle over scarce resources," positioning memorative activity as fundamentally *multidirectional*: as subject to ongoing negotiation, cross-referencing, and borrowing" (Rothberg 3). Foregrounding the "incessant wandering of carriers, media, contents, forms, and practices of memory, their continual 'travels' and ongoing transformations through time and space, across social, linguistic and political borders" (11), Astrid Erll examines the ongoing pre- and remediation of memorative discourses in the global age, whilst—working across memory and media studies—Joanne Garde-Hansen, Andrew Hoskins, and Anna Reading propose that technological advancements have engendered a "connective turn," "shaping an ongoing re-calibration of time, space (and place) and memory by people and machines as they inhabit and connect with both dense and diffuse social networks" (Hoskins, "Media, Memory, Metaphor" 29).

Collectively, these critics construe a model of memory as a fluid, inclusive, and open-ended process, rather than a fixed and exclusionary narrative, embracing the possibility that the intersection of disparate commemorative discourses might offer an opportunity to forge

empathic communities of remembrance across national, cultural, or ethnic boundaries. Such ideas, it seems to us, are of paramount importance in an era in which contemporary geopolitics are dominated by manifold transnational concerns, ranging from terrorism to the global financial crisis, the threat of climate change, and the increasing numbers of migrants, stateless persons, and refugees occasioned by social, political, economic, or environmental precarity.

However, as Wulf Kansteiner reminds us, despite the recent tendency to celebrate the "dialectical, conflicted interplay between global and local memories and identities" as a "very positive development" (331), it is important not to lose sight of the hegemonic dynamics of certain memory regimes and the power differentials between different memories and memory agents in the laudable move to embrace the ethical potential of transcultural paradigms of remembrance; memory, like all cultural and social practices, operates within the closed horizons of global capital, and it cannot but be affected and animated by the constraints and the compulsions this closure imposes. Accordingly, a number of recent critiques (Bond; Craps; Moses; Tomsky) have sought to highlight the (implicit and explicit) roles that memorative practice and theory have played in buttressing a global "trauma economy," in which disparate memories are mediated by "economic, cultural, discursive, and political structures that guide, enable and ultimately institutionalize the representation, travel and attention to certain traumas" (Tomsky 53). As Judith Butler has argued, such structures perpetuate inequitable hierarchies of life, which ensure that "certain lives will be highly protected, and the abrogation of their claims to sanctity will be sufficient to mobilize the forces of war. Other lives will … not even qualify as 'grievable'" (32).

These considerations underscore the fact that the transcultural frames of memory that shape our understanding of the past are—as memorative discourses have always been—contested, contingent, and both politically and ethically ambiguous. Bearing this in mind, the

chapters in this section seek to question what is at stake in negotiating the shifting scales of contemporary memory, and what role memory studies might play in the ongoing mediation between the private and the public, the past and the present, the local, the national, and the global.

In "Staging Shared Memory: *Je Veux voir* and *L'Empreinte de l'ange,*" Max Silverman builds on his notion of "palimpsestic memory"—one of the most illuminating perspectives from which transcultural memory has begun to be viewed in recent years— to explore the ways in which our stories of the past may be vulnerable to interaction with otherness; remaining attentive to this tenuous possibility, Silverman argues, involves an ethics of shared memory that eschews self-sufficiency and autonomy. The chapter foregrounds the *performative* dimensions of memory, underscoring the fact that the conjunction of different pasts is an (ethically charged and aesthetically attuned) act of construction in the present, not a pre-formulated narrative that is automatically transmitted to the next generation. Silverman explores two recent works that each stage the transcultural dimension of the encounter with otherness: the film *Je Veux voir* (2008) by the Lebanese film-makers Joana Hadjithomas and Khalil Joreige, and the novel *L'Empreinte de l'ange* (1998) by the Canadian writer Nancy Huston, to argue that the encounters that take place in the present of these texts (of filming, of writing) are constitutive of the creative act of remembrance itself. These works stage an ethics of shared memory, which is neither voyeuristic nor solipsistic, but open-ended and ambivalent for self and other.

Few recent works of art perform the encounter with a troubled past as self-consciously and impressively as Joshua Oppenheimer's much-discussed 2012 documentary *The Art of Killing*. Rosanne Kennedy's essay "Remembering the Indonesian Killings: *The Act of Killing* and the Global Memory Imperative" contributes to debates about the relationship between genocide, national and transnational memory, and history in a global media age by analyzing

the production, circulation, and reception of the film. The film, Kennedy shows, draws on explicitly transcultural models in generating a memory of the Indonesian genocide: one explicit model is the Holocaust paradigm, and especially Claude Lanzmann's *Shoah*; the second is provided by Hollywood films. Kennedy argues that the particular constellation of these models that the film "performs" (in Silverman's sense) provides an example of cosmopolitan memory, in which global icons and models are localized in specific national or local contexts. Yet still, and anticipating an issue that Aleida Assmann will elaborate in her contribution to this section, Kennedy contends that the most significant audience for the film remains a national one (even if it also implicates Western audiences, particularly Americans, since the CIA supported the regime that carried out the Indonesian genocide as part of the United States' own interest in ending the spread of communism). In so doing, *The Act of Killing* shows the relevance of both national and transcultural frames for remembering genocide in the present.

These overlapping and differently-scaled frames are further explored in Aleida Assmann's chapter "Transnational Memory and the Construction of History through Mass Media." Assmann foregrounds the changing role of mass media, which often address national audiences, in the drift of memory within and across national and cultural borders—borders that, she argues, are more stubborn and less permeable than celebrations of transnational and transcultural mobility tend to assume. She offers a general assessment of the "transnational turn" announced by historians and theorists in various subfields of cultural studies, which aims to go beyond national identifications, investments, and interests and to explore new forms of belonging, participation, and cultural identification in a world characterized by dispersed and displaced populations with different historical experiences and trajectories. In practice, Assmann argues, the term "transnational" often covers up rather than uncovers important problems that we encounter in this new area of research. Given the growing impact

of national history constructed through the mass media, the chapter focuses on the 2013 German television miniseries *Unsere Mütter, unsere Väter* (*Generation War*) and its reception, asking whether it stimulates nationalistic narcissism or has the potential to reimage the national past in a more comprehensive European perspective. Only by taking seriously the national frame, Assmann concludes, can a genuinely transnational method accurately describe actual memorial processes.

2. Transgenerational Memory

The chapters in the second section foreground the dynamics that inform the intergenerational transmission of memory. The emergence of memory studies as an interdisciplinary field of inquiry in the 1980s was driven in part by growing interest in the ways the experience of violence affects subsequent generations. Children of Holocaust survivors began to publicly explore what it means to grow up with the memory of a painful history which one did not experience first-hand, yet by whose legacy one feels profoundly stamped. The relationship between descendants of survivors and the traumatic past of which they have no direct personal experience has been described in terms of "postmemory" (Hirsch), "mémoire trouée" ("memory shot through with holes"; Raczymow), "absent memory" (Fine), and "prosthetic memory" (Landsberg).

Arguably the most influential conceptualization of transgenerational memory can be found in the work of Marianne Hirsch. In 1992 Hirsch coined the term "postmemory" to make an argument about the role of family photographs in the graphic novel *Maus*, Art Spiegelman's famous account of his father's experience of the Holocaust. The concept refers to the relationship of the children of Holocaust survivors to their parents' traumatic experiences, which were transmitted to them during childhood through stories, images, and

behaviors in such a powerful way as to seem to constitute memories in their own right ("Family Picture"). Hirsch explored postmemory in greater depth in her seminal 1997 study *Family Frames: Photography, Narrative, and Postmemory*. Distinguished from memory by "generational distance" and from history by "deep personal connection," she argues, postmemory is "a powerful and very particular form of memory precisely because its connection to its object or source is mediated not through recollection but through an imaginative investment and creation" (*Family Frames* 22). "It is a question," she writes elsewhere, "of adopting the traumatic experiences—and thus also the memories—of others as experiences one might oneself have had, and of inscribing them into one's own life story" ("Projected Memory" 9; "Surviving Images" 10).

A prominent line of critique of theories of transgenerational memory objects to their perceived tendency to conflate the suffering of survivors with that of their offspring. In his article "Second-Generation Testimony, Transmission of Trauma, and Postmemory," Ernst van Alphen challenges the assumption that there is a "fundamental continuity" (474) between the experiences of Holocaust survivors and those of their children, arguing that they are of a different nature altogether. In his view, "it makes little sense to speak of the *transmission* of trauma. Children of survivors can be traumatized, but their trauma does not consist of the Holocaust experience, not even in indirect or mitigated form. Their trauma is caused by being raised by a traumatized Holocaust survivor" (482; emphasis in original). He goes on to dismiss the concept of postmemory as a form of "wishful thinking" (486). As the relationship between memory and the past is an indexical one, and as postmemory can claim no such relationship, postmemory is "not relatively but fundamentally different from memory" (486). According to van Alphen, it is important to recognize that "the deep personal connection" of which Hirsch speaks can only refer to the connection between children of survivors and their parents, and emphatically not to the connection between the children's experience and the

parental past (486-87). Using a term that implies connection to describe a situation that is really one of disconnection, he argues, obscures the specificity of the challenges faced by children of survivors and of the dynamics between survivor parents and their children (487-88). In his book *Fantasies of Witnessing*, Gary Weissman similarly criticizes Hirsch for blurring the distinctions between survivors and those who witness their trauma second-hand by allegedly suggesting that "the difference between memory and postmemory is primarily one of distance rather than substance" (17). In her 2012 book *The Generation of Postmemory*, Hirsch responds to van Alphen's and Weissman's objections to her use of the word "memory" in her formulation of postmemory (31; 254-55n3). While granting that "[p]ostmemory is not identical to memory: it is 'post,'" she sees no reason to stop using the term, as postmemory "approximates memory in its affective force and its psychic effects" (31).

In the same vein as van Alphen and Weissman, Amy Hungerford has questioned the notion of trauma transmission, taking particular aim at the work of Shoshana Felman and Cathy Caruth, two key figures in the field of trauma theory. In *The Holocaust of Texts* Hungerford takes Felman to task for suggesting that "the experience of listening to Holocaust testimony produces symptoms of trauma equivalent to the traumatic symptoms produced by actually experiencing the Holocaust" (104). Hungerford also criticizes what she sees as Caruth's attempt to "cut [the experience of trauma] free of the person to whom the trauma happens" (114) and thereby make it into a generic experience that can be transferred from one person to another: "By cutting experience free from the subject of experience, Caruth allows trauma not only to be abstract in the extreme but also, by virtue of that abstraction, to be transmissible" (115). In Hungerford's view, Caruth's notion of transmissible trauma risks violating or obscuring the very specificity of history that she is officially so anxious to preserve. Hungerford goes on to question the wisdom of emphasizing the need to *remember*

traumatic events that one has not lived oneself rather than to *learn* about them: "Memory (the knowledge of what we have experienced)," she decries, "is privileged over learning; in much public discourse on the subject of the Holocaust, for example, it has become more important to 'remember' the Holocaust than simply to learn about it" (155). Gabriele Schwab, however, has taken issue with Hungerford's summary dismissal of "emotionally engaged and personally inflected engagements" with the Holocaust, calling it a "politically questionable" attitude that amounts to an "emotional silencing" of the event (117).

Despite critical questions about the pertinence of transgenerational memory, research into this mnemonic dynamic has steadily grown and lately begun to diversify. Even if it was initially developed in relation to children of Holocaust survivors, postmemory is not limited to "the intimate embodied space of the family" but, as Hirsch explains, can be extended to "more distant, adoptive witnesses or affiliative contemporaries" (*The Generation of Postmemory* 6). Drawing on Geoffrey Hartman's concept of "witnesses by adoption" ("Surviving Images" 8), she describes her theory of postmemory as "*retrospective witnessing by adoption*" ("Surviving Images" 10). What she retains from Hartman's concept is "the connection to and enlargement of family that this term implies" ("Surviving Images" 10). Hirsch notes that the expansion of the postmemorial community beyond family boundaries is enabled by the conventionality of the familial tropes prevalent in postmemorial writing and art, which provides a space for identification that can, in theory at least, be occupied by any reader or viewer. If theories of traumatic transfer originally focused on the Holocaust, attention has shifted in recent years to the intergenerational transmission of memories of a wide range of histories, including also "African slavery; the Vietnam War; the Dirty War in Argentina and other dictatorships in Latin America; South African apartheid; Soviet, East European, and Chinese communist terror; the Armenian, the Cambodian, and the Rwandan genocides; the Japanese internment camps in the United States; the stolen generations in

aboriginal Australia; the Indian partition; and others" (Hirsch, *Generation of Postmemory* 19). Critics such as Schwab and Erin McGlothlin have further extended the inquiry into transgenerational memory by focusing on descendants of perpetrators as well as victims, whilst other scholars have approached these dynamics from a transcultural angle. Moreover, while visual media—and photography in particular—have traditionally been seen to play an important role in transgenerational memory alongside verbal storytelling, in recent years such processes have increasingly acquired a transmedial dimension as the impact of digital media technologies on modes of memory transmission has become a focus of inquiry. The three chapters in this section reflect on these new dynamic contexts of transgenerational memory from transdisciplinary perspectives.

In "Small Acts of Repair: The Unclaimed Legacy of the Romanian Holocaust," Marianne Hirsch and Leo Spitzer raise the question of transgenerational memory by focusing on a very specific topic: the work and the reception of a number of writers and artists who were deported to Transnistria, an area that was annexed by Romania during World War II and became what they call a "forgotten cemetery" in which hundreds of thousands of Jews, Roma, and political prisoners perished. Whilst Transnistria's history fails to fit common conceptions of Holocaust persecution and murder, much of the vibrant intellectual and artistic activity that took place in its ghettos and camps also largely fails to fit the paradigms of Holocaust art or literature. Accordingly, this chapter not only aims to illuminate and restore this little-known chapter of Holocaust history, thus activating the performative dimension of transcultural and transgenerational remembrance that Max Silverman foregrounds in his contribution to this volume, but, through its attention to both visual and literary media, it also asks larger questions about possibilities of repair and redress in the aftermath of atrocity, and about the needs of audiences that inherit these painful histories through different media.

In "Fictions of Generational Memory: Caryl Phillips's *In the Falling Snow* and Black British Writing in Times of Mnemonic Transition," Astrid Erll defines "fictions of generational memory" as a type of literature that addresses the problem of "generation" in both its synchronic and diachronic dimensions, as it deals with generationality (that is, generational identity) as well as with genealogy (as a mode of vertical transmission). The essay combines memory theory with different strands of generation studies (in the fields of sociology, social history, and cultural studies) in order to develop tools for the analysis of fictions of generational memory. It analyzes these fictions as a truly global phenomenon and as a specific literary way to cope with generational, and hence also mnemonic, transitions— from witnesses to their children and grandchildren, from memory to postmemory, and from communicative to cultural memory (to use Jan and Aleida Assmann's terms). Drawing on Caryl Phillips's novel *In the Falling Snow* (2009) as its main example, the essay shows how contemporary black writing in Britain addresses the mnemonic transitions that can currently be observed in Britain's immigrant generations. As the members of the Empire Windrush generation are aging, the second and third generations of black Britons are looking for new ways to relate to the legacy of British immigration history. Locating themselves as distinct generations (in the sense of generationality) in this history, they seek to reassemble diasporic family memories and to unearth genealogies which reach across what Paul Gilroy has influentially called the "Black Atlantic."

In "The Uses of Facebook for Examining Collective Memory: The Emergence of Nasser Facebook Pages in Egypt," Joyce van de Bildt adds a transmedial twist to the transcultural and transnational nature of transgenerational memory underlined by Erll. Anticipating the focus on digital and social media in (especially) the third section of this volume, the chapter demonstrates how Facebook pages function as a platform on which people express their different views of a shared past, evoking competition, comparison, and conversation. As a

case study, the chapter explores the emergence of Facebook pages dedicated to Gamal Abdel Nasser. The pages' historical themes stand for larger, more complex interpretations of the Egyptian national past, which are closely related to current social and political agendas. Since the Nasser forums are predominantly founded by a younger generation of Egyptians whose members have not experienced his period of rule, van de Bildt argues that these "historical" Facebook pages should be examined as forms of transgenerational memory and as instances of nostalgia. The chapter explicitly raises disciplinary questions, considering, like Jessica K. Young's chapter in the volume, whether social media are an appropriate tool for examining cultural memory practices, and how it can be complemented by other medial and disciplinary approaches to vernacular, as opposed to official, memory.

3. Transmedial Memory

It is one of the central insights of memory studies that memories, whether individual or shared, are always mediated. In his first, foundational, study of memory, *Les Cadres sociaux de la mémoire* (1925), Maurice Halbwachs underlines that even our most intimate and personal memories are inflected by social structures: memory is inseparable from the social and linguistic frameworks that co-constitute it. More recently, memory studies has extensively researched the role of the technologies and apparatuses that make possible the storage and transmission of memory, underscoring the fact that even childhood memories, which might strike us as the most private and authentic forms of recollection we have, are triggered and shaped by mediating objects such as photographs, home videos, souvenirs, oral stories, and written documents. Moreover, as a number of critical interventions have argued, what goes for individual memories also goes for shared memories: the remarkable rise (and the particular shape) of the Holocaust in American historical consciousness, for instance,

cannot be explained without referring to the broad appeal of the 1978 TV miniseries *Holocaust*, the efforts of the Fortunoff Video Archive for Holocaust Testimonies to videotape the accounts of survivors since the 1980s, and the establishment of the United States Holocaust Memorial Museum in the 1990s. In turn, this insight into the mediated nature of *all* memory problematizes any attempt to unreflexively deny transgenerational (post)memory the status of memory on account of its alleged lack of authenticity and indexicality: after all, if memory is inevitably mediated, such indexicality and authenticity are always an effect—or indeed, an affect—never an achieved ontological certainty.

This key insight has entailed a double shift in memory studies: toward a focus on processes and dynamics of memory rather than on static sites of remembrance, and toward a closer scrutiny of the media of memory, which are never neutral carriers of historical understanding, but actively co-constitute the meanings and dynamics of commemorative culture. Ann Rigney has described the first shift as a move from "monumentality" to "morphing" (345), from the assumption of media carriers' stabilizing and naturalizing force to a more variegated account of the different ways in which media allow memory to circulate—as "relay stations," as "stabilizers," or as "catalysts" of memory (350-52). From such a dynamic perspective, memory objects are not discrete phenomena but elements in chains and networks of transmedial interactions; with Astrid Erll, Rigney has deployed the notion of "remediation" to capture these processes. Borrowing the concept from Jay David Bolter and Richard Grusin's book *Remediation: Understanding New Media*, Erll and Rigney see remediation as "the ongoing transcription of a 'memory matter' into different media"— memory matter, that is, is essentially "a transmedial phenomenon; it is not tied to one specific medium" (Erll, *Memory in Culture* 141). What emerges from this understanding is a fluid and flexible account of mnemonic processes, in which "media are always 'emergent' rather than stable," and in which media figure "as complex and dynamic systems rather than as a line-up

of discrete and stable technologies" (Erll and Rigney 3). Memory, in other words, is regarded as fundamentally implicated in "pluri-medial networks" (Erll, "Literature, Film" 395).

The differences and overlaps between the media that make up such networks have increasingly become a focus of attention in memory studies. Different media have different constraints and different affordances: we now know that the advent of writing in early civilization radically altered the constitution of memory cultures, allowing them to develop new connective structures less reliant on imitation and ritual for their reproduction (J. Assmann, *Cultural Memory* 3-4); later, the invention of the printing press spelled the decline of certain ancient mnemotechnics as broader audiences gained access to print material to which they could outsource their memory work (Erll, *Memory in Culture* 116-18). Different media, in other words, command different forms of attention and uptake (think also of the aura of authenticity surrounding photography), which in turn generates different media cultures and communities. Today, media culture is essentially marked by the spread of digital and so-called social media, which plug contemporary memory work into what Andrew Hoskins has called a "new memory ecology." According to Hoskins, new media saturate contemporary memory work to the point that we can speak of a veritable "new memory," a term that covers "both the media-affected formation and reformation of shared or social memory in the contemporary age and the consequential reassessment of the nature and the very value of remembering (and forgetting) subject to the technologies of and the discourses disseminated by the mass and other media" ("The Mediatisation of Memory" 27-28). This "new memory," for Hoskins, radically recalibrates the once mutually exclusive relation between public and private technologies of remembrance: "Whereas the personal writing and production of memory (scrapbooks, diaries, photographic albums, etc.) of the past were intended for limited consumption, mediatisation has delivered a new self-centred (and immediate) public or semi-public and semi-private, documentation and correspondence, in

other words a social network memory" (30). Accordingly, "everyday life," for Hoskins, "is increasingly embedded in the mediascape"; media not only mediate our *consumption* of events, but they actively shape their *production* (31).

Hoskins's influential account of the full-scale mediatization of memory appears to move from Erll's "pluri-medial networks" to a disabling "omnimedial" network that fully absorbs human agency. However, there are good reasons to resist this shift, if only because it threatens to erase a number of tensions and distinctions in a way that impoverishes our account of the mobility of memory. As Aleida Assmann notes in this volume, the networked distribution of memory dispenses with the principle of scarcity that is yet an essential aspect of all memory—without selection, there is no memory, just data. And, as Amanda Lagerkvist underlines in her chapter, human life continues to resist its saturation by media, as its relation to media remains marred by all too human forms of anxiety and insecurity. Most importantly, perhaps, the celebration of the digitization of memory forgets that mediascapes are animated by tensions and overlaps between emergent, residual, and dominant media; indeed, opposing "the strategic amnesia of digital culture" by retrieving obliterated genealogies of media cultures is the explicit aim of the budding field of media archeology (Parikka 13). Thus, a proper account of transmedial memory, we contend, must start from the realization that our lives have become increasingly digitized, but that they remain, like all forms of life, marked by regressions, hesitations, tensions, and other hiccups that media memory studies must attend to.

Let us briefly mention three notions that, we believe, manage to factor in the medial constitution of memory while remaining sensitively attuned to differences and difficulties— to what the editors of the important volume *On Media Memory* call media memory's "multichannel outlets, its multiple approaches and research designs, and the various challenges it poses" (Neiger, Meyers, and Zandberg 1). We are thinking, first, of Anna

Reading's concept of the "globital memory field," which connects the deterritorializing forces of the global and the digital. For Reading, the concept of the globital makes it possible to study transmedial transfer—between digital and non-digital media, but also between different digital media such as smartphones, computers, cameras, and so on—as "a memory assemblage that is dynamic and involves transmedial, globalized, mobile connectivities and mobilizations" (241-42). Secondly, there is Marita Sturken's notion of "tangled memories," which she coined in the nineties, in a study that underlines the formative role of media in shaping a sense of US national identity—the very sense of identity, that is, that traditional memory theories take for granted. Focusing on the cultural memories of the AIDS epidemic and the Vietnam war, Sturken foregrounds what she calls "technologies of memory … objects through which memories are shared, produced, and given meaning" (9). These technologies "embody and generate memory" (10), and, as Amanda Lagerkvist emphasizes in her contribution to the current volume, this materialist perspective makes it possible to read even the body itself as a memory medium. The third notion we want to touch on, Alison Landsberg's aforementioned "prosthetic memory," also routes contemporary memory processes through the mass media and through embodied experience. For Landsberg, the mass media define the context for contemporary practices of remembrance; more specifically, media afford contemporary subjects experiences "through which the person sutures himself or herself into a larger history" (2). Now that memory has entered "the age of technological reproducibility" (14), it is transmitted and disseminated in a fluid and flexible way, in which media act as cognitive and affective relays between parents and children and between individuals and communities. Even if Landsberg does not extensively discuss digital memory, her emphasis on the experiential and subjectivity-constituting dimension of memorial transmission makes her work a vital resource for the analysis of memory in a digital age.

The three chapters in this section of the book contribute to our understanding of the medial infrastructures of contemporary memory—of memoryscapes that are undeniably dominated by the digital, yet in which power struggles and medial differences continue to matter. José van Dijck's "Algorithmic Memory: How Facebook Takes Charge of Your Past" foregrounds the role that social media have come to play in the ways we remember and see ourselves—both in individual and collective terms. While the Timeline architecture Facebook introduced in 2011 and 2012 invites users to organize their web identities through acts of memorization, van Dijck reveals how the mobility of memory is in fact directed and shaped by the algorithms that power these platforms, which are primarily concerned with monetizing users' data. In an age of social media, van Dijck writes, we have moved from a situation of increased connectedness to almost compulsive *connectivity*, in which memory is "transmediated" into a byproduct of algorithms that serve as connectivity engines. If the notion of connectedness refers to horizontal, networked, peer-to-peer communication facilitated by digital platforms, the notion of connectivity, by contrast, underlines that these platforms now *construct* and *exploit* rather than merely *enable* connections between users. Not only have technological developments made it possible for social interactions and cultural production to be thoroughly mediated by digital platforms (what is sometimes called "radical connectivity"), but as these developments have also enabled the transformation of the social value of connectedness into monetary profit, such platforms work to actively *promote* connections through coding technologies (what van Dijck calls "automated connectivity"; van Dijck 13). This means that "connectedness is often invoked as the pretense for generating connectivity, even now that data generation has become a primary objective rather than a by-product of online socialibility" (van Dijck 12). This shift toward a "platformed" sociality has altered the very ways in which individuals connect: pressured by invisible algorithms that aim to maximize connections and the data they generate, users are

motivated to concern themselves with performances of self-branding and the accumulation of social capital, rather than with self-expression and communication per se.

This condition of almost total absorption by algorithms raises questions about human agency and embodied experience. Amanda Lagerkvist's "Embodiments of Memory: Toward an Existential Approach to the Culture of Connectivity" is an ambitious effort to extend the vocabulary and the conceptual framework for studying the digital memory ecology. Lagerkvist highlights a conspicuous gap in many theories of digital memory, as they fail to account for the seemingly paradoxical fact that we inhabit these ecologies as both fully embodied and totally mediated: what is needed, Lagerkvist argues, is new terms to map the frictions between these two modes of saturation. How, Lagerkvist asks, do media of memory produce performances of memory across the realms of the body, digital media, physical artifacts, and space? By coining the notion of "mediatized performativity," the essay understands embodiment and ubiquitous mediation as co-constitutive. Focusing on four modalities of media embodiment—the performative body, the device body, the implied and the implicated body—the chapter offers conceptual tools to account for the discontents, the malfunctions, and other generally overlooked existential dimensions of media memory.

The last contribution to this section of the book testifies to the persistence of tensions between digital and non-digital media in the contemporary media ecology. Brian Johnsrud's "Metaphorical Memories of the Medieval Crusades after 9/11" explores the transmedial circulation—as well as the resistance to such circulation—of crusader analogies in the post-9/11 media ecology. Focusing on the movement of key crusader analogies across academic and popular historiography through different venues, media, and platforms to describe the wars in Iraq and Afghanistan, Johnsrud analyzes how the widespread academic condemnation of such comparisons has had the effect of marginalizing them. Eventually, digital media allowed popular voices to establish an alternative historical authority, which, in a surprising

twist, created opportunities for conspiratorial claims to migrate to traditional realms of

historical authority, such as academic historiography. Johnsrud's chapter responds to the need

for a fine-grained and flexible study of media assemblages as theorized in the other chapters

in this section. By touching on the question of (challenges to) disciplinary authority, it at the

same time anticipates the question of mnemonic mobility and disciplinary identity that takes

center stage in the last section of the book.

4. Transdisciplinary Memory

As the previous sections of this introduction have amply demonstrated, it is by now a

commonplace that memory can be regarded as not just a property of individual minds and

brains but as taking place in social interaction, shaped by political circumstances, informed

by different cultural traditions, and enabled by evolving media technologies. Hence, an

integrative understanding of memory drawing on various disciplines and areas of expertise

seems called for. As Astrid Erll points out, over the last three decades, memory has emerged

as "a genuinely transdisciplinary phenomenon whose functioning cannot really be understood

through examination from one single perspective" (*Memory in Culture* 38). Memory studies

is an area of inquiry that spans the humanities, social sciences, and natural sciences,

involving such diverse disciplines as history, sociology, psychology, philosophy, literary

studies, media studies, the arts, anthropology, architecture, museology, and neuroscience. The

contributions to the last section of the book explore to what extent the recent emphasis on the

mobility of memory enables a recalibration of the relations between several of these fields

and disciplines.

Seeing signs of growing convergence, Erll observes that "the disciplines of memory

studies are steadily moving towards one another, and scholars are increasingly interested in

the possibilities offered by interdisciplinary exchange" (*Memory in Culture* 38). Landmark moments in this evolution were the launch in 2008 of the journal *Memory Studies*, which offers a platform for cross-disciplinary dialogue and whose contributors invoke a wide variety of traditions and frameworks, and the publication of field-defining collections and surveys such as Jeffrey K. Olick, Vered Vinitzky-Seroussi, and Daniel Levy's *The Collective Memory Reader*; Erll and Ansgar Nünning's *Cultural Memory Studies: An International and Interdisciplinary Handbook*; and Erll's *Memory in Culture*. Other indications of the manifestation of memory studies as a fundamentally interdisciplinary field are the establishment of research initiatives such as the Center for Interdisciplinary Memory Research at the University of Flensburg, Germany, directed by Harald Welzer, and the Interdisciplinary Memory Group at the New School for Social Research, as well as the creation of academic programs such as the Luce Program in Individual and Collective Memory at Washington University in St. Louis, which offers students the opportunity to study with faculty from a wide range of disciplines.

The institutionalization of these multifaceted approaches reflects Andreas Huyssen's contention that "memory is one of those elusive topics we all think we have a handle on. But as soon as we try to define it, it starts slipping and sliding, eluding attempts to grasp it either culturally, sociologically, or scientifically" (*Present Pasts* 3). Accepting that such hermeneutic slipperiness demands the development of adaptive and innovative methodologies, the aforementioned initiatives embrace memory studies' emergence as "a non-paradigmatic, transdisciplinary, centerless enterprise" (Olick and Robbins 105). However, some critics remain more skeptical of the variegated nature of the field. According to Olick, for example, the "interdisciplinary integration of memory studies" envisaged by Erll (*Memory in Culture* 175) largely remains at the level of aspiration rather than reality:

interdisciplinarity is a concept that has never really fulfilled its promise, even in this

most "trans-disciplinary" field. We all write a lot about how we need to take the work of

other disciplines seriously, but rarely does this go beyond reading and citation … Actual

cross-disciplinary research, however, has been much rarer than affirmations about its

necessity and desirability … We need to think more about genuine interdisciplinary

cooperation, cooperation that is beyond the level of mutual referencing. (23-24)

A similar concern is expressed by Adam D. Brown and his colleagues, who question whether

scholarly meetings promising interdisciplinary approaches to memory and other such

attempts at collaboration across disciplinary lines do not "more often result in

multidisciplinarity, rather than interdisciplinarity, in which scholars are exposed to other

disciplines' perspectives, but little is transferred from one academic discipline to the next"

(118). While these are important caveats, the three chapters in this section go some way, we

believe, toward redeeming the unfulfilled promise of genuine interdisciplinarity in memory

research. Conceiving of memory studies as a site of both conversation and contestation

between disciplines, they show how actor-network theory, ecocritical, and digital humanities

approaches and methodologies can inform and enrich memory research.

Frauke Wiegand's essay "The Agency of Memory Objects: Tracing Memories of Soweto

at Regina Mundi Church" enriches our conceptual repertoire for thinking contemporary

constellations of memory. It does so in an explicitly transcultural and transmedial context, as

it analyzes the acts of memory taking place in the small, almost hidden exhibition space of

the Regina Mundi Church in Soweto, South Africa, home to the photographic exhibition

"The Story of Soweto." Alongside iconic photographs by well-known apartheid and post-

apartheid photographers, the exhibition walls are full of personal inscriptions—written

messages, tags, and small poems in a range of South African and other languages, signed and

dated, overwriting or supplementing each other, and, importantly, constituting a popular motif for visitors' snapshots. The essay maps this complex and ever-changing media assemblage by introducing actor-network theory (ANT) to the field of memory studies. Developing the idea that objects and images that leave a trace can act as mediators of memory, the chapter sheds light on the different life cycles of memory objects and their multiple mediations.

In "Cultural Memory Studies in the Epoch of the Anthropocene," Richard Crownshaw engages the small but growing body of research on the relationship between oil and culture that has emerged together with the increased attention to the notion of the Anthropocene. The chapter demonstrates that petrofiction studies, in particular, has drawn on postcolonialism, ecocriticism, and the transnational turn in literary studies to map the global and environmental implications of oil production, transit, and consumption, and of energy (in)securities and dependencies. By considering the often surprising ways in which oil can prompt acts of cultural remembrance and forgetting, Crownshaw's chapter aims to draw the field of memory studies into the orbit of these concerns. It explores "petromemory" in the post-oil science fiction of James Howard Kunstler. Kunstler's *World Made by Hand* remembers (from the future) oil in its absence, emphasizing the role it played in the ecological catastrophes it projects, and constructing a post-oil imaginary to explore the possibilities of thinking beyond a melancholic attachment to oil. This case study finds that national or humanist frameworks of memory cannot contain the global or indeed planetary (geopolitical as well as ecological) implications of oil supply and exhaustion. Transdisciplinary engagement thus emerges as one way to begin the daunting task of mapping the novel planetary reality in which an ecologically attuned memory operates.

The globalizing force of the Anthropocene is only one of the developments that have recently expanded the scale of memory; the datafication of human life, which inscribes

human behavior in databases that the human mind cannot begin to apprehend, is another one. Jessica K. Young's "'Filled with Words': Modeling the September 11 Digital Archive and the Utility of Digital Methods in the Study of Memory" confronts the possibilities and liabilities digital media pose for the collection, preservation, and dissemination of individual and collective memories. Given the perceived limitations of traditional humanistic methodologies for studying the massive amounts of information collected across digital media, this chapter asks what the tools engineered by the emergent interdisciplinary field of digital humanities can offer the study of a large corpus of testimonies collected in online user-generated archives, and specifically what these tools can add to the methodological analysis of a cultural memory of trauma. As a case study, it uses a form of "distant reading" called Latent Dirichlet Allocation (LDA) topic modeling to examine the 12,500 personal stories collected and shared by the September 11 Digital Archive. LDA topic modeling allows memory scholars to examine how certain topics, such as media dissemination, patriotism, and the historicization of the events, capture the imagination of responders at certain points in time, turning the mass of data into a meaningful engagement with cultural memory, and decisively enriching the repertoire of memory studies of the future.

Foregrounding the transcultural, transgenerational, transmedial, and transdisciplinary dynamics of memory, and tracing numerous intersections and divergences between these vectors of mobility, this volume seeks to provoke closer attention to memory's unbounded properties. At stake in this endeavor, we believe, is the challenge to conceive of memory outside of normative cultural, generational, medial, and disciplinary frameworks without losing sight of the important particularities that attend local and generational articulations of memory, and continue to do so even in a globalized and digitized world. Cumulatively, the

essays in this volume argue for an acknowledgment of the complexity and plurality of mnemonic movement, and they warn against the temptation to elide the role that hegemonic institutions, such as the nation-state, continue to play in contemporary memorative practice, to occlude the ways in which the changing media and technologies of memory shape our understanding of the past, or to neglect the elisions and biases that can arise from over-subscription to particular disciplinary epistemologies. In so doing, *Memory Unbound* argues that memory studies must adapt its methodologies to interrogate and accommodate the changing political, economic, technological, and environmental climate of the global age, and the manifold social, political, and ecological challenges that accompany these developments. Moreover, as many of the contributors to this collection propose, this work must remain sensitive to the inequitable distribution of power and resources, and the role that memorative discourses may play in ongoing struggles for justice, equality, and varying forms of (political, cultural, or juridical) representation.

This volume has its roots in a series of events on new directions in memory studies that were held in Ghent, Stockholm, London, and Maastricht in recent years: a lecture series for Ghent University's Internationalization@Home program titled "Memory Unbound" in 2012; the second edition of the summer school organized by the Mnemonics network—an international collaborative initiative for graduate education in the field of memory studies—on the same topic in Ghent in 2013; the third edition of the Mnemonics summer school, which was titled "Media of Memory" and took place in Stockholm the following year; and three linked workshops on "The Natural History of Memory" that were held in London, Ghent, and Maastricht in 2014 and 2015. As the collection has evolved, it has remained important to us to recognize these origins, bringing together many of the leading scholars of memory with emerging voices in the field, and exposing established methodologies and models of memory to new perspectives and approaches. Consisting of twelve specially

commissioned essays, *Memory Unbound* transforms our current knowledge of the movements of memory across cultures, generations, media, and disciplines and sets an ambitious agenda for the future of memory studies.

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Introduction. The human brain is made of millions of neurons placed in an organized manner to ensure the working of the organ. These neurons communicated with each other using specialized chemicals called neuron transmitters. These chemicals are of several types, and the release varies and depends on several different factors. Brain's ability to retain episodic memory depends on the number of sensory stimuli involved and emotions. Semantic: These memories are the general facts and knowledge of things around us. It helps make new memories and move on. Otherwise, we will never progress into the future and cling on everything traumatic we remember. Sometimes we even forget the memories we cherish because this is how the brain works. Introduction to Memory Management Figure 1-1 Memory organization with several applications open. Application 1 partition. Application 2 partition. Heap fragmentation is generally not a problem as long as the blocks of memory you allocate are free to move during heap compaction. There are, however, two situations in which a block is not free to move: when it is a nonrelocatable block, and when it is a locked, relocatable block. To minimize heap fragmentation, you should use nonrelocatable blocks sparingly, and you should lock relocatable blocks only when absolutely necessary. Assessment | Biopsychology | Comparative | Cognitive | Developmental | Language | Individual differences | Personality | Philosophy | Social | Methods | Statistics | Clinical | Educational | Industrial | Professional items | World psychology |. Cognitive Psychology: Attention · Decision making · Learning · Judgement · Memory · Motivation · Perception · Reasoning · Thinking - Cognitive processes Cognition - Outline Index. For the journal of the same name, see Memory (journal). Read-Only Memory (ROM). Memory with moving parts: "Drives". What year was the 250 Megabyte hard drive announced? 1998. Memory with moving parts: "Drives". Chapter 15 - Digital Storage (Memory). PDF Version. Following on the heels of the music industry, the video entertainment industry has leveraged the technology of optical storage with the introduction of the Digital Video Disc, or DVD. Using a similar-sized plastic disc as the music CD, a DVD employs closer spacing of pits to achieve much greater storage density. This increased density allows feature-length movies to be encoded on DVD media, complete with trivia information about the movie, director's notes, and so on. Much effort is being directed toward the development of a practical read/write optical disc (CD-W).