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Glimpses of World War II in Denmark: Memory and History in Frayn's Copenhagen and Sibbern's Resistance Scrapbook

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Glimpses of World War II in Denmark: Memory and History in

Frayn’s *Copenhagen* and Sibbern’s

Resistance Scrapbook

Adriana Pinegar

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

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ABSTRACT

Glimpses of World War II in Denmark: Memory and History in Frayn’s *Copenhagen* and Sibbern’s Resistance Scrapbook

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The relationship between history and memory is long and complex. While some theorists argue that they are at odds with one another, this thesis explores the necessary relationship between the two. Using Michael Frayn’s 1998 play, *Copenhagen*, and the scrapbook of a Danish police officer and resistance fighter during World War II, the author posits the central role of uncertainty in the negotiation of individual memory and history. The position of the observer or witness to history affects the way the past is remembered and recorded. Individual witnesses, even and perhaps especially where they stray from the accepted historical narrative, testify to something that would otherwise be lost: the nature of the event. The observer therefore plays an important role in interpreting the testimony according to its place in the flow of time.

Keywords: memory, uncertainty, World War II, Denmark, Michael Frayn, Copenhagen
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Introduction

On April 9, 1940, German Nazis invaded their northern neighbor, Denmark. The attack was precisely what Danish officials had been working to avoid. Up to this point, Danish officials had been careful not to incite the aggression of the growing Nazi power; as a small country with a small military, they knew that an attack from a powerful army would be nearly impossible to defend. The Danish government therefore cooperated when, after the initial attack, German forces offered to treat Denmark as a sovereign state as long as they presented no resistance to occupation. Nils Arne Sørensen, a history professor at the University of Southern Denmark, explains that this agreement “meant that, technically speaking, Denmark was not at war with Germany and the Danish government could go on functioning. As a consequence, the Danish experience of occupation differed dramatically from those of other occupied countries in western Europe” (Sørensen 296). This policy helped to keep the death toll of Danes relatively low (less than 4,000 recorded deaths, roughly 0.08 percent of the total population in 1939).¹

However, as the end of the war approached and Allied forces toppled the enemy, this cooperative relationship with the Nazis would no longer serve as a benefit. In 1943 Danish officials angered the Nazis by punishing arsonists who attempted to burn down the Great Synagogue in Copenhagen. When the Danish government refused to comply with an ultimatum from the Germans, they were forced to give up sovereignty and the Germans issued a deportation order that would send all Danish Jews to concentration camps. The underground Danish resistance movement enlisted the help of regular citizens to organize a mass rescue effort in

¹ In comparison, the death toll in the Netherlands was over 300,000 people, or roughly 3.45 percent of the population. These figures are according to the National World War II Museum in New Orleans, Louisiana.
which 7,220 of Denmark’s 7,800 Jews were smuggled across the Øresund strait to asylum in Sweden. This effort resulted in the survival of ninety nine percent of the country’s Jewish population. It also put Denmark on the winning side at the end of the war. As a result, various explanations began to make their way into the official history to account for Denmark’s earlier cooperation with the Nazis. This cooperation was quickly framed as a different kind of resistance, which protected Danish citizens (including Jews) by keeping the enemy at bay. Uffe Østergård suggests that the presentation of the Danish government acting as a “shield” and the resistance movement acting as a “sword” allowed Denmark to assume an honorable place in the history of the war. He writes:

The predominant narrative about Danish politics during the occupation, “the war of the entire people” against Germany and Nazism during the Second World War, was established very rapidly even before the war ended…This effort saved the Danish position at the last minute, placing Denmark on the side of the victorious Allies as co-founder of the United Nations in the summer of 1945. How this move was possible for a country which in real terms had been allied with Nazi Germany until the summer of 1943 at least, almost beats imagination. Much of the success of the maneuver depended on the fact that the majority of the Jews in Denmark, by good luck, were saved from Nazi persecution in October 1943. (35)

By stressing the survival of the Jews and Denmark’s relative peace throughout the war, Denmark found itself listed among the Allied countries in the history books around the world, this despite their cooperation with Germany in the early years of the war.

In contemporary Denmark, however, the history of the occupation and Denmark’s role in World War II has been adapted, appropriated, revised, nuanced and ultimately debated since the
war ended. Similar to Østergård, Nils Sørensen explains that the version of history that depicts the cooperation of the government as “indirect or legal” resistance developed before the end of the war (299). He documents, however, the development of competing narratives of the war, including a version submitted by the resistance fighters that does not view the government cooperation as subtle resistance. Sørensen writes, “After the liberation in 1945, two conflicting narratives of the war experience were formulated. A consensus narrative presented the Danish nation as being united in resistance while a competing narrative, which also stressed the resistance of most Danes, depicted the collaborating Danish establishment as an enemy alongside the Germans” (295). In the years since the end of the war, the “official” narrative in Denmark has been disputed, often by politicians and historians, as well as by survivors and their descendants.

These debates started before World War II was over and they continue into the present. The fiftieth anniversary of the end of the war spurred historian Henning Poulsen’s rather blunt and bleak summary of Denmark’s involvement: “We collaborated politically with the occupation power and achieved conditions that, in comparison with other occupied countries were good and relatively free. We then got a resistance movement at half price, and, finally, we became an allied power without entering the war” (qtd. in Sørensen 295). Such interpretations of the war have been disputed in order to establish positions on foreign policy. In a speech given in 2003, then Prime Minister Anders Fogh Rasmussen painted a picture of Danish World War II activity in order to “justify Danish participation in the wars in Afghanistan and Iraq” (Sørensen 46). And there are other practical reasons for the ongoing debate. In April of 2013, the Danish Resistance Museum (Frihedsmuseet) in Copenhagen was destroyed by a fire. The museum began as a temporary exhibition in the Masonic Lodge in Copenhagen in the summer of 1945 and favored
the narrative that portrayed the Danish resistance movement working against not only the
Germans but also the Danish government. In a press release about the damage caused by the fire
and planned rebuilding of the museum, a description of the earliest museum reads:

Det allerførste, midlertidige « Friheds museum » i Frimurerlogen var en
sejrsudstilling med et klart og populært budskab: Vi var også med i kampen mod
nazismen, så vi har også vores andel i sejren. « Vi » omfattede i den sammenhæng
strengt taget kun modstandsbevægelsen. Men det store flertal af befolkningen,
som for langt de flestes vedkommende havde været pro-britisk og antinazistisk
indstillet gennem hele besættelsen, kunne også føle sig inkluderet. Udelukket var
kun det mindretal, som havde været på den « forkerte » side og—diskret
antydet—politikerne som repræsentanter for det Danmark, som ikke havde
kæmpet. (National Museum of Denmark)

The very first temporary “Freedom Museum” in the Masonic Lodge was a victory exhibition
with a clear and popular message: We were also in the fight against Nazism, so we also share
in the victory. “We” included in the context strictly speaking only the resistance movement.
But the vast majority of the population, which for the most part had been pro-British and
anti-Nazi throughout the occupation, could also feel included. Excluded were only the
minority who had been on the “wrong” side and—discreetly hinted at—politicians as
representatives of Denmark, who had not fought.²

As the museum developed, it managed to maintain this narrative. However, the directors of the
National Museum (of which the Resistance Museum is a part) viewed the fire as an opportunity

² All translations from the Danish press release are mine.
to expand the scope of the museum in order to provide context that would account for all the
“complexity and contradictions” of the time. In the press release, they suggest:

Vi skal fortsat fremlægge historien med de forskelle i vægtningen…og vi skal
som hidtil lade det være op til publikum selv at tænke og drage egne
konklusioner. Det er godt, hvis en udstilling som Frihedsmuseets rejser spørgsmål
hos den besøgende. Det er betænkeligt, hvis den også forsøger at levere entydige
svar, for virkeligheden er sjældent entydig; det var den heller ikke for dem, som i
sin tid valgte at tilslutte sig modstanden. Det er ved at forstå, at valget hverken var
let eller enkelt, men nødvendigt for den enkelte, at vi andre kan lære noget ved at
gå på Frihedsmuseet. (National Museum of Denmark)

We must continue to make history with the differences in the balance…and we
must continue to leave it up to the audience to think and draw their own
conclusions. It is good if an exhibition like the Resistance Museum raises
questions for the visitors. It is questionable if it also tries to provide unequivocal
answers, reality is rarely unequivocal; it was not for those who, in their time,
chose to join the resistance. It is by understanding that the choice was neither easy
nor simple, but necessary for the individual, that we can learn something by going
to the Resistance Museum.

The National Museum is attempting to keep the story of the resistance relevant to modern
audiences by presenting multiple narratives and asking them to engage in an interpretive process
in order to understand the nature of the events being recalled. Opposition to this proposed
revision of the museum argues that the museum began as a museum honoring the freedom
fighters, and that it should be rebuilt in that spirit. Those who oppose the newly proposed
changes feel that by expanding the scope and recognizing other possible versions of the history, the bravery of the resistance fighters is discredited.
Two Accounts of World War II

The example of the Danish Resistance Museum highlights why accounts of World War II provide an interesting example by which to examine issues of memory and history. As the event recedes further into the past, the number of living people who have personal memories of the war is dwindling. Archiving efforts and anniversary commemorations attempt to preserve and honor those memories before they are lost forever. The “facts” of World War II have long since been recorded, but the testimony of eyewitnesses offers something outside of those facts, which bears witness to the nature of the event itself. What is said and how it is communicated is at the heart of a different kind of understanding that reveals how memory has shaped and been shaped through time. Every person, organization and nation remembers the war differently. All of these disparate accounts should not frustrate but rather contribute to a better understanding of the Second World War. They bear witness to the traumatic nature of the event in a way that no collection of data, however harrowing, could ever accomplish.

The remainder of this thesis will analyze two very different accounts. These accounts reveal the nature of the event as they testify to the “breakage of a framework” of history (Felman and Laub 60). Their treatment of history sometimes departs from a historical narrative, witnessing to the aftershocks of war that have shaken and shaped the present. Both texts deal with the geographically and chronologically particular topic of the Danish experience of World War II, though a discussion of both texts will prove their refusal to remain isolated according to location and time. By analyzing these two texts together, I hope to illustrate the important role of uncertainty in understanding the past. Uncertainty does not discount the possibility of knowing, but underscores the position of the audience in interpreting what we know. The first text I will discuss is Michael Frayn’s 1998 play, Copenhagen, which recounts an elusive yet crucial
incident between Niels Bohr and Werner Heisenberg during the early years of World War II. The second text is a multi-volume scrapbook made by a former Danish police officer who worked as a double agent for the resistance movement during the Nazi occupation.

*Copenhagen* takes as its subject the clandestine meeting of Niels Bohr and Werner Heisenberg, both Nobel prize-winning physicists. The two enjoyed a friendship and collaborative working relationship for nearly twenty years. In the early twenties, Heisenberg, the younger of the two scientists, moved from his native Germany to Denmark in order to work with Bohr. During that period, the duo made several important advancements in the world of quantum physics, though none so revolutionary as the Copenhagen Interpretation, which combines Heisenberg’s uncertainty principle with Bohr’s theory of complementarity. Despite their joint success, Heisenberg moved back to Germany in 1928 to accept a position at the University of Leipzig. Shortly thereafter, Hitler gained power in Germany and eventually the Nazis invaded several European countries, including Denmark. In the early years of World War II, Heisenberg returned to Copenhagen to visit his old mentor. There is no record of their conversation during this meeting, but it is understood that Bohr quickly became upset and sent Heisenberg away. Subsequent attempts by both of the scientists to recall their conversation reveal conflicting accounts. After this meeting, Heisenberg returned to Germany and worked with the Axis powers to build a nuclear bomb. They were unsuccessful. But the Allied forces, with help from Bohr, not only built but dropped atom bombs on Hiroshima and Nagasaki, Japan in 1945. Throughout the rest of their lives, both scientists tried to make sense of their meeting in 1941, with little success.

In *Copenhagen*, Frayn deals with this historic episode in a unique manner. The characters circle around the event of their “famed meeting” in an effort to understand just what was said and what the consequences of that meeting in fact were. Despite repeated efforts to recover this
memory, they never arrive at a conclusion about what took place or how to understand its significance. Michael Frayn is English and has no evident ties to Denmark, except in his interest in Bohr and Heisenberg’s relationship. The action of the play also seems to be only tangentially related to the war in Denmark. However, this is precisely what is at work in Frayn’s drama. While the play seems to be only concerned with the understanding of personal memory, the way each of the scientists remembers the events changes how they view history as a continuum. Furthermore, the questions in Frayn’s play problematize how each of the two scientists have been understood by history, not only as scientists but as citizens of their respective nations. The playwright arrives at no solid conclusions, but he does propose a means whereby each individual takes ownership of their view of the past, which is not a nihilistic or relativist approach to history, but a demand for the responsible creation of a necessarily new interpretation of the past based on the position of the observer.

The resistance scrapbook suggests a similar reading. The text was compiled in the 1960s in Los Angeles, California by a Danish man named Viggo Bjørn Sibbern. A rather unique text, the scrapbook is a set of five volumes that span the years of World War II. The thematic thrust of the text is on the war in Denmark and the Danish resistance movement, in particular. The contents of the scrapbook are items that Sibbern collected and preserved throughout the course of the war and in the several years between the end of the war and the construction of the scrapbook. He includes fliers, posters, drawings, booklets, photographs and tickets, in addition to three-dimensional objects like badges and armbands. Among these artifacts, Sibbern provides explanations about their meaning and significance, but his words and the objects can never convey all the meaning these vehicles of memory hold for him.
Despite the historical subject of the scrapbook and the archival quality of its contents, the scrapbook represents Sibbern’s personal experience. While he makes every effort to remain unbiased, he can only speak from his own perspective and from the present. The fragmented temporality inherent in the scrapbook results in a traumatic text that bears witness to the Danish resistance movement, testifying as much through the silences and gaps in the narrative as through the words and images Sibbern has compiled. As in Frayn’s play, subjectivity is underscored, not as a weakness but as a creative opportunity for memory to fill in the gaps inherent in history. What is witnessed to is the nature of the event and how it has been remembered, not the event itself.

The two texts are linked more by their differences than their similarities. The hyper-fictional treatment of history in Frayn’s play stands in contrast to the tangible historical artifacts collected in Sibbern’s scrapbook. Frayn and Sibbern are separated by myriad differences: time, profession, experience and language. Frayn composed Copenhagen more than fifty years after World War II ended. Born in England in 1933, he was a young child during the war and the subject of his work is not a matter of personal past. Writing late in the twentieth century in England colored his perception of his subject, which he researched through letters, journals and published works. In addition to all of this, Frayn was a celebrated playwright when he debuted Copenhagen. His work demonstrates a control and an awareness, which he utilizes in order to expose the inability to ever know everything. His effort to deliver this message to his audience is very deliberate. Sibbern’s scrapbook exposes the same uncertainty that Frayn carefully crafts in Copenhagen, but Sibbern arrives at it almost on accident. Like Frayn, he is writing from a temporal and geographical distance, but his subject is his own experience, using a collection of documents to illustrate his narrative. Whereas Frayn’s presentation of history is hyper-
fictionalized, Sibbern’s scrapbook appears as a historical archive. Despite all these differences, both texts point to the gaps in representation and the inability to fully capture or relate history.

Sibbern’s layered text with its self-conscious recognition of subjectivity, demands to be read as a postmodern history, which “contest[s] the very possibility of our ever being able to know the ‘ultimate objects’ of the past” (Hutcheon 24). This is not a denial of the ability or the opportunity to learn from the past, but a “recognition of the fact that the social, historical, and existential ‘reality’ of the past is discursive reality when it is used as the referent of art, and so the only ‘genuine historicity’ becomes that which would openly acknowledge its own discursive, contingent identity” (24). The very aesthetic of the scrapbook supports this type of reading, because “[it] involves the transfer of materials from one context to another so that the objects are given a double reading: the fragment as perceived in relation to its context of origin on the one hand, and as incorporated into a new whole on the other” (Katriel and Farrell 10-1). The items in the scrapbook are to be encountered individually and collectively, not because “there is some special dispensation whereby the signs that constitute an historical text have reference to events in the world” (Kermode 108), but because as a collection they bear witness to what is not included in the archive: the trace. The trace reveals through brief glimpses what cannot be known in entirety.

_Copenhagen_ is all about the trace as well. The play circles around an event, but never arrives, because the event is only encountered through its absence. Frayn is careful not to place blame on anyone for this loss. In fact, Frayn’s trace indicates that what is lost is something that is not apparent until (or perhaps _because_) it is gone. As Bohr tells Margrethe at the very beginning of the play: “Some questions have no answers to find” (Frayn 3). These are the questions Frayn builds his drama around. Just like the white spaces in the scrapbook, it is in the gaps of memory...
that the audience is invited to engage with the text. In those gaps, the audience “comes to look for something that is in fact nonexistent; a record that has yet to be made” (Felman and Laub 57). This lack creates an obligation of those in the present to fill in the gaps by creating a new memory, through the event of witnessing. Frayn teaches his audiences how to responsibly engage with the text so that the creative act is not a relativist commandeering of the past for personal purposes. He demands that the audience bear witness to the nature of an event that cannot be relayed fully. This witnessing requires a special engagement and listening to the text that does not allow the reader to advance his or her own personal agenda in the interpretation of the past. Witnessing becomes a new and creative act, belated, but only possible as such.

Rather than provide an account of history, these texts represent the act of witnessing. Just as the proposed modifications to the Resistance Museum would provide a venue for new memories of the resistance movement to be created, Sibbern’s scrapbook becomes an event in itself: the event of witnessing. Furthermore, Frayn’s characters are not shown reenacting the past, but remembering it. The reflective tone of the museum and the selected texts demonstrates what is really at stake. The way things are remembered and how an event takes shape throughout time lies at the heart of these works. How a person chooses to remember determines what is remembered, and the moment of remembering becomes “a historical event in its own right” (Felman and Laub 85). Frayn’s play and Sibbern’s scrapbook do not attempt to dismiss or replace historical truth. Instead, they reveal the ethical and moral implications of remembering, and propose a quantum ethics, which allows for multiple possibilities by revealing the agency of the witness in the act of remembering.
Memory and History

At the heart of each of these examples is the negotiation of memory and history. The rebuilding of the museum and the debates that surround it about what and how to remember provide a fascinating example of complexities at the heart of the relationship between memory and history. In the press release announcing the new vision for the Resistance Museum, among the primary reasons for the proposed changes was the need to adapt to the way visitors receive information and engage with history. The announcement observes that, “Man er ikke blot passiv modtager af en fortælling, men selv med til at præge dens retning” (People are not merely passive recipients of a narrative, rather they help shape its direction; National Museum of Denmark). With the new scope and design of the museum, the directors are anticipating an audience that may not have any knowledge of the resistance and they are attempting to provide a forum for understanding. The museum directors suggest that the one thing the original founders would have wanted is for the museum to remain “relevant” to the public. They express the concern that “jo længere begivenhederne rykker på afstand, jo mere bliver man nødt til at forklare” (the further into the past an event moves, the more we have to explain; National Museum of Denmark). The museum once relied on the collective memory of those who experienced the war and participated in the resistance, but as time moves on, visitors to the museum require context and backstory in order to understand the exhibitions and ultimately to pass judgment on the past. Collective memory gives way to a seemingly more objective sense of history. In another paragraph of the museum press release, the directors express a desire to create an exhibition where “den besøgende kan forstå den tid, begivenhederne udspillede sig i. En tid, hvor eksempelvis respekten for autoriteter var langt større, end vi er vant til i dag” (the visitor can understand the time that the events took place. A time when, for example, respect for
authority was far greater than we are accustomed to today; National Museum of Denmark).

Visitors to the museum are being asked to witness to the events of the resistance. In redesigning the museum, the museum directors are attempting to provide the context and perspective necessary to convey not simply historical fact, but the nature of those events being witnessed to.

The proposed updates to the Danish Resistance Museum are just another example of modern museums’ constant effort to negotiate between objective and factual documents and artifacts (classified as history) and the more tenuous, flexible and conflicted ideas referred to as memory. Memory and history are constantly in flux. Similarly, the terms themselves are far from stable. For the purposes of this thesis, the distinctions between the two are outlined below. My understanding of memory is based on the concept of active memory as articulated by Marie Louise Seeberg, Irene Levin and Claudia Lenz in *The Holocaust as Active Memory*. According to this model, memory takes place in the present and implies an individual experience. Seeberg, Levin and Lenz describe memory “not only as a conscious or subconscious element in the minds of people as they go about their lives, but as intrinsic to dynamic processes that make a difference to the social contexts in which people take part: as continuously relevant information” (4). Memory remains relevant in the sense that it informs the present, while circumstances in the present weigh heavily on the way memories are represented. Human memory (both individual and collective) is not like computer memory that stores an original file, which can be accessed at anytime. There is no raw file to be retrieved or recovered. Instead, memory is constantly being reformed according to the moment of remembrance. Seeberg, Levin and Lenz write:

Our experiences belong to the past, but they are continually reconstructed in the present. In the present, both the past and the future are represented so that the past becomes a reconstruction. We use the concept of memory as a linkage between
the past as it happened and the present time when the story is told, with perspectives of the future embedded within it…The past is nothing in itself. It changes as our experiences change…we see our new experiences in light of earlier ones. In this sense, too, we can never go back to any previous point in time and the past may only be viewed from the position of the present. (5)

Memory, then, is steeped in the present and its demands. As opposed to history, which places a distance between the past and the present, memory joins the two together while also taking into account the future as it is anticipated in the present. With these different temporalities being negotiated in one instant, it becomes easier to understand why memory is ever changing.

While memory is grounded in the present and therefore changes over time, history is also always under construction, though for different reasons and in different ways. Whereas the fluidity of memory is an organic natural occurrence, history is always being reworked in search of an elusive objectivity. Paul Ricoeur suggests that history is so often rewritten because:

Nous attendons de l’histoire une certaine objectivité, l’objectivité qui lui convient; la façon dont l’histoire naît et renaît nous l’atteste; elle procède toujours de la rectification de l’arrangement official et pragmatique de leur passé par les societies traditionnelles. Cette rectification n’est pas d’un autre esprit que la rectification que représente la science physique par rapport au premier arrangement des apparences dans la perception et dans les cosmologies qui lui ressent tributaires. (Ricoeur 24-5)

We expect from history a certain objectivity, the objectivity that is suite to it; the way in which history is born and reborn attests to it; it always proceeds from traditional societies’ rectification of the official, pragmatic arrangement of their
past. This rectification is not different in spirit from that of physical science in relation to the first arrangement of appearances in perception and in the cosmologies that remain dependent on it. (Le Goff 115)

From Ricoeur’s explanation, history takes on a scientific air: as new information and new knowledge is discovered, the historical record is corrected to reflect these findings. This revision process often replaces rather than builds off of previous versions of the event, so that in the quest for objectivity, the nature of the event is lost and history becomes an abstraction of what once lived in personal and collective memory.

This abstraction of the past that results from constant editing becomes disorienting, according to French historian Pierre Nora. He suggests that “When we try to puzzle out our relation to the past by studying significant historical works, we discover that our historical knowledge is not at all like memory: instead of placing us in a continuous relation with the past, it creates a sense of discontinuity” (11). Indeed, adjusting a historical record to contain all that is understood in the present tends to erase rather than to explain a connection to the past. However, this scientific insistence on being current is in part due to the aim of history—as well as its “most flagrant contradiction” (Le Goff 115)—which demands that “its object is singular (an event or series of events, or figures who appear only once), [while] its goal, like that of all sciences, is the universal, general, and regular” (115). In this thesis, the important distinction between history and memory is that history attempts to understand the past generally and universally, while memory places the individual at the heart of a negotiation between past and present.

Some of the tension that arises between memory and history is due to the different ways that each navigates the relationship between the past and the present. As new discoveries are made, history is rewritten to reflect the knowledge of the present. Time presses forward, bringing
with it a supposedly superior understanding of the past, and it is up to those in the present to correct the misunderstandings of those who came before. History places a distance between the audience (the student, the historian, the civilian) and the event. It takes as a given the notion that with the passage of time comes greater understanding, and therefore, a greater ability to judge; those in the present can more objectively interpret the past precisely because they did not live it.

A simple explanation would perhaps suggest that history is based on facts, but French historian Jacques Le Goff insists that “historical objectivity cannot be reduced to pure subservience to facts” (113). Interpretation is always required in light of established facts. Léopold Génicot, himself a historian, makes an important distinction about the role of the historian in this interpretive process. He writes:

The historian does not have the right to pursue a demonstration despite contrary evidence, to defend a cause no matter what it is. He must establish and show the truth or what he believes to be the truth. But it is impossible for him to be objective, to abstract from his ideas about man, and notably when it is a question of gauging the importance of events and their causal relations. (qtd. in Le Goff 111-2)

Génicot makes it clear that while the historian has an obligation to known facts, there is no chance of objectivity. One may believe that he or she has achieved a satisfactory distance from the past that allows for objectivity and perfect understanding, but “ein Chaos von Existenzialurteilen über unzählige einzelne Wahrnehmungen wäre das einzige, was der Versuch eines ernstlich voraussetzungslosen erkennens der Wirklichkeit erzielen würde” (“any attempt to understand (historical) reality without subjective hypotheses will end in nothing but a jumble of existential judgments on countless isolated events”; Weber 177; Le Goff 113-4). In other words,
Objectivity is unattainable and the presumption to be objective will only lead to misinterpretation. Objectivity is so elusive because the historian can never fully remove himself from time.

This temporal distance can never be achieved because any knowledge in the present is contingent on all that preceded it. Le Goff explains that “there are…at least two histories: that of collective memory and that of historians. The first appears as essentially mythic, deformed, and anachronistic. But it constitutes the lived reality of the never-completed relation between present and past” (111). While a history that relies on memory is messy and incomplete, it is also able to account for the paradoxically simultaneous distance and proximity between the past and the present. The two are distinctly separate, and yet one is always imperceptibly blending into the other. Nora articulates this ceaseless blur of time as “the eternal present” (3).

Nora has contributed significantly to the discussion of memory and history. His influential work, *Lieux de Mémoire* is an exploration of the relationship between the two phenomena and their changing nature. Nora sees memory as starkly contrasted to history, which he condemns as stagnant and cold. He explains:

Memory and history, far from being synonymous, are thus in many respects opposed. Memory is life, always embodied in living societies and as such in permanent evolution, subject to the dialectic of remembering and forgetting, unconscious of the distortions to which it is subject, vulnerable in various ways to appropriation and manipulation, and capable of lying dormant for long periods only to be suddenly reawakened. History, on the other hand, is the reconstruction, always problematic and incomplete, of what is no longer. Memory is always a phenomenon of the present, a bond tying us to the eternal present; history is a representation of the past. (3)
For Nora, it is memory that embraces the past in the present. In his construct, memory is an active and dynamic process: flexible, malleable, adaptive. History, as Nora paints it, is the opposite: a stagnant representation of the past that attempts to look back without any engagement. Nora laments that history is accelerating in such a way that it has begun to eclipse what he calls “true” memory, which he describes as “all-powerful, sweeping, un-self-conscious, and inherently present-minded—a memory without a past that eternally recycles a heritage, relegating ancestral yesterdays to the undifferentiated time of heroes, inceptions, and myth” (2). For Nora, this “true” memory becomes a means by which the events of the past transcend time in order to find significance and meaning in the present. This meaning is threatened by history, which attempts to reconstruct the past and in doing so divorces the remnants of “true” memory from their context in both the past and the present.

Nora’s presentation of memory and history is not without critics. While most scholars acknowledge the important contributions of Nora’s study, there is a fair amount of resistance to the binary he sets up in his configuration of memory and history. Michael Rothberg finds lieux de memoire—these sites of memory that Nora argues have replaced organic, spontaneous, “true” memory—too static. He suggests instead “noeuds de memoire” or “knots of memory” as a way to illustrate the complexity and dynamic nature of memory in relation to history. He writes, “Noeuds de memoire…are not static conglomerations of heterogeneous elements…Sites of memory do not remember by themselves, they require the active agency of individuals and publics. Such agency entails recognizing and revealing the production of memory as an ongoing process involving inscription and reinscription, coding and recoding” (8-9). Rothberg views the interpretation of memory and the ties to the past and present as too complex to be understood in Nora’s model.
Rothberg is not alone in his sense of memory as an ongoing process with historical weight. Australian historian Paula Hamilton argues for “an integral relationship, an essential interdependence between memory and history, despite claims of great tension and conflict…Memory is gradually lost and here the historian steps in to tell the stories that people forget—the ‘gaps’ in the collective remembering. Just as the people do remember what the historians forget” (12). In these nuanced views of Nora’s discussion, the collaborative, cooperative relationship of history and memory is underscored. Each fills a role that the other cannot, enriching understanding on both sides.

Without doubt, there are differences and tension between history and memory. Of particular concern in this thesis is the often-controversial role of individual memory in history. There is great public interest in individual voices, but when those testimonies clash with history, tension arises. Hamilton suggests that the tension comes not only from the differences between memory and history, but from the conflicting narratives of individuals being asked to accept as history a memory that does not match their own. She writes:

Memories are claimed as individual but the greatest conflicts occur when people insist that others should remember as they do…[People] argue over what happened and what interpretation to place on the experience, which is usually negotiated through the collective process of remembering. (15)

Above, Hamilton identifies some of the friction between memory and history. Memory is “claimed as individual,” whereas history requires “a sanctioned narrative” (Sturken 119). History

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3 Volumes have been written debating the accuracy and validity of eyewitnesses in such traumatic events as the Holocaust, 9/11 and various wars. In popular culture, autobiographies and memoirs by individuals with varying levels of notoriety are regularly ranked among the national bestsellers.
“belongs to everyone and to no one” (Nora 2), meaning that it is public and inherited, but also that it cannot be changed at will by a single individual. As Hamilton suggests, there is a required negotiation about how to interpret events in the past. Like with the example of the Resistance Museum, the “sanctioned narrative” can and does change over time, but it remains out of the control of the individual. In fact, once something moves from individual memory to part of an official history, the individual appears to vanish from the narrative.
A Series of Glimpses: Michael Frayn’s *Copenhagen*

On May 28, 1998, a new drama by the English playwright Michael Frayn premiered at the National Theatre in London. The play was called *Copenhagen*, and it took as its subject a single mysterious meeting between German physicist Werner Heisenberg and his mentor, Danish physicist Niels Bohr. Frayn was already a well-known playwright when *Copenhagen* debuted. His behind-the-scenes farce, *Noises Off*, had received a Tony nomination for Best Play in 1983, and multiple reviewers called it “the funniest play written in the twentieth century” (Lathan). *Copenhagen* surprised audiences that were expecting something similar to Frayn’s previous work. With a small cast, simple set, somber tone and disjointed chronology, *Copenhagen* could not be more different from *Noises Off*. Nevertheless, the new play was met with high critical and popular acclaim.

*Copenhagen* has just three characters: the two physicists and Bohr’s wife, Margrethe, make up the entire cast. The set is sparse, consisting of a circle of light cast onto a stage, empty except for three chairs, one for each of the actors. As they deliver their lines, the actors either sit or else roam around the lighted area like electrons orbiting around a nucleus. The three main characters in the play seemingly speak from beyond the grave, attempting to recount the details of the meeting in which their personal and professional lives intersected with world history. Traditional plot development and chronology are brushed aside as the action of the play moves through a hyper-fictionalized realm of space and time. A basic plot summary fails to capture all that happens in the play, for there is little action.

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4 The play is set after “all three of [the characters are] dead and gone” (Frayn 3), in a nondescript afterlife.
The play is based on a clandestine meeting between Heisenberg and Bohr that took place in Copenhagen in the early years of World War II. Heisenberg’s visit to his old mentor was controversial for a number of reasons; the most glaring one being that he was traveling from Germany to Denmark, which was occupied by the Nazis during this time. The motivation behind the visit and the conversation shared during their brief walk in Tivoli Gardens that evening form the inaccessible kernel at the center of Frayn’s play. History shows only what happened: Heisenberg worked for the Nazis to develop a bomb, and the effort was unsuccessful. However, Frayn explores possible reasons why Heisenberg was so desperate to meet with Bohr, and each proposed reason skews the story in a different way. Heisenberg may have been seeking moral advice from Bohr, he may have been asking for help in working out calculations that could unlock the key to the Germans’ atomic bomb project, or he may have been spying on Bohr to assess if the Allied sources were any closer to building a bomb. At stake in the ongoing interpretations of the event is the outcome of World War II. As Heisenberg would have the Bohrs believe, he helped to thwart the Nazis by waylaying Germany’s atomic bomb project, thereby allowing the Allied forces to win the race to create a nuclear weapon. The meeting between Bohr and Heisenberg serves as a turning point in the war, though neither of the acclaimed physicists could have known all of the implications of their meeting at the moment it took place. The three characters recreate the episode again and again, attempting to recover an intention or meaning, but they find the task impossible. Uncertainty becomes the only constant in the multiple “drafts” of the experiment.

Below I will work to explain the distinction Frayn’s play draws between uncertainty and unknowability. A misreading of Frayn’s play may suggest a sort of nihilism in the face of such unknowable events. However, I shall attempt to prove that the message of *Copenhagen* is in fact
quite the opposite. Frayn’s presentation of uncertainty demonstrates not the inability to know anything, but the important role of the observer in understanding what and how things are known. Such a view moves Frayn’s play away from the idea of history as discussed previously and into the realm of memory. I will describe the way Frayn uses the scientific discoveries of his two main characters to illustrate the tension involved in the observation of something that never fully concludes. This tension is a result of the position of the observer as well as the limitations of measurement. As I argue below, an awareness of these limitations allows for meaningful and approximate data to be collected and pave a way for a quantum ethics that helps to navigate the terrain between memory and history.

Frayn weaves the principles of quantum physics seamlessly into the dialogue of his work, paralleling the contributions made by the two physicists with the questions at the heart of the play. Heisenberg, Bohr and Margrethe are attempting to give voice to intentions that cannot be observed in the trace of recorded history. Just like the particles Heisenberg and Bohr observe, the elusive and unrecoverable intentions of the past can only be approximated based on the trace they leave behind as they travel through time. Heisenberg’s uncertainty principle found that it is impossible to know everything about a particle. The more precisely one variable is measured, the less precisely its complementary variable can be determined. This principle does not imply that nothing can be known for certain, but that some level of approximation is always in play when observing a particle because observation and measurement are based on the position of the one observing, just as history is shaped by the position of the historian. Bohr summarizes for the audience, explaining:

*Measurement is not an impersonal event that occurs with impartial universality. It’s a human act, carried out from a specific point of view in time and space, from*
the one particular viewpoint of a possible observer. Then…we discover that there is no precisely determinable objective universe. That the universe exists only as a series of approximations. Only within the limits determined by our relationship with it. Only through the understanding lodged inside the human head. (71-2)

Attempts to understand the behavior of a particle involve disturbing the particle by introducing another element, such as a photon of light, and watching how the particle reacts to the interfering element. This attempt to locate a particle and to anticipate its future behavior affects the way that Heisenberg and Bohr go about treating the particle. Chronology and causality are undermined by the methods used to observe the particle’s behavior. The whole endeavor becomes somewhat cyclical because each decision determines the outcome it is attempting to measure.

In a restatement of Heisenberg’s uncertainty principle, Bohr explains to the audience that “[Particles] are either one thing or the other. They can’t be both. We have to choose one way of seeing them or the other. But as soon as we do we can’t know everything about them” (69).

While Bohr and Heisenberg are concerned with the behavior and movement of particles, the implications of this statement extend beyond the world of quantum physics. Heisenberg’s concise summary of his findings reveals the elusive nature of both particles and the past; and therefore the fateful meeting between Bohr and Heisenberg. He explains that “you have no absolutely determinate situation in the world, which among other things lays waste to the idea of causality, the whole foundation of science—because if you don’t know how things are today you certainly can’t know how they’re going to be tomorrow” (68). The three characters’ ability to understand the past is limited by the way they have chosen to remember and interpret it, as well as their position as observers. They cannot arrive at an absolute understanding because each of their memories includes not only what happened that day, but also their intentions, suspicions
and concerns, as well as their understanding of what resulted from the meeting. Furthermore, they are blind to the intentions, suspicions and concerns of all others involved. What they remember is the significance the event took on in the time after the meeting. Frayn’s characters are a microcosm of the challenges in attempting to recount the past and an exploration of what memory really represents: not the event but the nature of the event as it has evolved through time.

In *Copenhagen*, Frayn delicately unravels Bohr’s certainty by replaying the story again and again with new information (or old memories) each time. Bohr was a Dane with Jewish heritage who eventually escaped occupied Denmark in a boat to Sweden by night and was whisked away to New Mexico to work with the Allied forces trying to beat the Germans at their own game. His natural inclination is to interpret Heisenberg’s participation in the German effort to build an atomic bomb as collaboration with the enemy and a betrayal of a twenty year friendship. However, when he chooses to view Heisenberg’s behavior in this way, he limits himself from “knowing everything about [Heisenberg]” (Frayn 69). Occasionally Bohr becomes wrapped up in reminiscences of happy times making landmark discoveries alongside his young colleague. Other times he becomes frustrated by intelligence he gained after Heisenberg’s visit, such as information regarding Heisenberg’s role in fumbling the calculations to build a reactor for the Germans. With each repetition of the memory, Bohr’s perspective changes. Each iteration causes Bohr to view not only Heisenberg’s actions, but also his own participation in the war using a different measurement. By the end of the play, the characters and audience are no closer to a single conclusion—instead, the possibilities continue to multiply each time they revisit the past. It is not that the event has changed or that memory is being betrayed. Rather, as different
outcomes are focused on, the nature of the event shifts because its meaning in the flow of time is different.

Through the constant repetition of the past, Frayn’s three characters attempt to engage with the traces of both external and internal information. Heisenberg, Bohr and Margrethe are the only people that could be expected to explain exactly what happened during Heisenberg’s fateful visit, as well as its significance. Not only because they were the only people present, but also because they seem to have the advantage of looking at the event in hindsight, having lived through the aftermath of the event. But Frayn carefully picks apart even this thesis, illustrating, “How difficult it is to see even what’s in front of one’s eyes. All we possess is the present, and the present endlessly dissolves into the past” (86). In the timeless realm that Frayn’s characters inhabit, they are able to explore the past without the relentless advancement of time. In the world of these characters, past, present and future blend seamlessly together and they are able to shift events around so that they take on new or different meanings. The suspension of time allows for a probing of the past in which “no one can be hurt…no one can be betrayed” (Frayn 4). As the characters together recount Heisenberg’s visit in 1941, they use the past tense when they refer to the events of their memory. But this memory is “a curious sort of diary…You step through the pages into the months and days themselves. The past becomes the present inside your head” (Frayn 6). As such, Margrethe, Bohr and Heisenberg often transition between the past and present tense, as if re-inhabiting their memories. The staging of the play leaves this rather ambiguous, because the scene does not change to indicate what time they occupy.5

5 This is not true of the 2002 PBS Hollywood Presents: Copenhagen, a film version of the play. Rather than a filmed stage production, the made-for-TV movie is set in modern Copenhagen and presented as a series of flashbacks.
This strategy effectively illustrates the way the individual experiences of each character are tied up in a way that resists isolation. Seeberg, Levin and Lenz explain that “the world [consists] of systems, of open systems that form each others’ environment and interact with and mutually influence each other, so that the process taking place within any one system cannot be understood in isolation” (Seeberg, Levin and Lenz 5). If each character’s memory is viewed as part of a system, an attempt to isolate one of these parts would be to decontextualize memory in such a way that whatever meaning is interpreted or derived will be limited at best. The entire play revolves around the three characters attempting to recover something unrecorded, something that was lost with the passage of time, or that was never there to begin with. All these years later, it is not that the moment cannot be remembered, but that when the event occurred, it did not hold the meaning that the present now assigns to it. They look back on the meeting in Copenhagen as an episode in the continuum of history, but when it occurred, there was no special or inherent meaning being inscribed. It is not until they look back and demand certain answers from this moment that the interpretation of that memory reveals its instability. The event has acquired new meaning for each of the characters based on all that came before and after the meeting, so the memory of the event alone can never again be isolated.

As the play continues, each character offers information intended to explain their decisions or exonerate them of any guilt. But as these details are piled on, they begin to contradict or at least conflict with the narrative up to that point. In order to deflect blame or otherwise justify their behavior, the characters draw from events that take place both before and after Heisenberg’s visit. One moment they are reminiscing about ski trips and joint discoveries and just a few lines later they are arguing about dropping the bomb on Hiroshima, all the while attempting to convince each other to see things from their perspective. When they speak, it is
sometimes unclear whether they are addressing the audience or each other. There is a sense in which all information arrives belatedly, because the characters are outside of time. Whatever the characters are trying to convince each other of, it will not change the past.

Throughout the play, Bohr repeatedly emphasizes to Heisenberg the importance of being able to “make the whole thing clear to Margrethe.” He elaborates on his belief that “we don’t do science for ourselves, that we do it so we can explain it to others…In plain language. Not your view…but for Margrethe’s sake” (38, emphasis added). Bohr places special importance on the ability to abandon personal perspective in order to translate difficult mathematics into something that anyone can understand (Margrethe becomes the stand-in for any conceivable audience). Bohr reduces complex theories to a general, simplified version. This tendency to explain everything is contrasted with Heisenberg’s refusal to do the same. Bohr complains to Heisenberg, “You never cared what got destroyed on the way…As long as the mathematics worked out you were satisfied” (25). The two scientists’ professional habits translate into the way they approach a reworking of the past. While Heisenberg insists on privileging outcomes rather than the methods or choices that lead to them, Bohr repeatedly calls for “another draft” of the memory, attempting to “get it right” (53). Always, Bohr wants the draft in “plain language,” a sterile, easy to understand, innocent memory. His desire to smooth out the past reflects the process of negotiation involved in the recording of history. Bohr’s attempts to remove himself from his work and from his memory are like the misguided attempts of historians to rewrite the past to fit comfortably with the present. Such an attempt can only fail, because just like Bohr

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6 Different productions interpret the addressee of certain lines differently, subtly changing the meaning. For example, some of Margrethe’s lines are interpreted as asides in several productions, but in the 2002 PBS version, these lines are directed to either her husband or Heisenberg.
(and Heisenberg, and Margrethe), any recollection of the past is ultimately “from the one particular viewpoint of a possible observer” (71). With every new draft Bohr demands, Frayn demonstrates the futility of his endeavor to create a general narrative without him at the center.

Heisenberg is also attempting to view history from outside himself. His attitude is akin to those who view history as a string of facts that disregard “However we got there, by whatever combination of high principles and low calculation, of most painfully hard thought and most painfully childish tears” (Frayn 74). When Bohr and Heisenberg revisit their cloud chamber experiment, they argue about what it is that they were able to observe, a revealing passage about the way each of them views history as well. Heisenberg exclaims in frustration, “There isn’t a track! No orbits! No tracks or trajectories! Only external effects!” (65). Margrethe, coming to her husband’s defense, insists, “Only there the track is. I’ve seen it myself, as clear as the wake left by a passing ship” (65). The track to which Margrethe refers is “not a continuous track but a series of glimpses—a series of collisions between the passing electron and various molecules of water vapor” (66-7). The track can only be observed by “introducing some new element into the situation” (66), which will collide with the electrons in the particle. Such a process then requires interpretation of the data, because the newly introduced element will have an energy of its own, thereby changing the behavior of the observed particle, however slightly. Interpretation is required because the trace does not reveal the behavior of the particle as it is (or was). Rather, the data from the trace reveals how the particle interacted with another element. It is necessary to understand what is being measured so as to better interpret it. An account of the past testifies of the nature of an event, rather than the exact details of that event. In a sense, its effect can be approximated, even if the event is irrecoverable.
As Heisenberg and Bohr debate this point, Heisenberg creates an analogy in which he is a photon of light “despatched [sic] into the darkness to find Bohr” (69), an electron. In the scenario, Heisenberg “manage[s] to collide with [Bohr]….But what’s happened? Look—he’s been slowed down, he’s been deflected!” (69). Heisenberg would perhaps be happy to observe just the change in behavior of the particle—those things that can be observed externally—but Bohr points out the complexities involved in observing this experiment. He reminds Heisenberg:

You also have been deflected! If people can see what’s happened to you, to their piece of light, then they can work out what must have happened to me! The trouble is knowing what’s happened to you! Because to understand how people see you we have to treat you not just as a particle, but as a wave. I have to use not only your particle mechanics, I have to use the Schrödinger wave function. (69)

As has already been discussed, this complexity is not limited to physics, nor to the way Frayn’s characters remember their past. While the characters are working through a particularly taxing scientific query, Frayn is using the episode as an illustration of the way human beings approach history.

Because history depends on observable facts, it would seem to enjoy a scientific containability that supposedly provides a readable track through time. However, Frayn reminds his audience that just as the photon affected the way the particle behaved, so any method of recording history will have an effect on the record of the past. Just as the observation of a particle requires human intervention, so the recording of history changes its very nature. This is not a failing of history or science, merely a fact of the reality that “the universe exists only as a series of approximations. Only within the limits determined by our relationship with it. Only through the understanding lodged inside the human head” (Frayn 71-2). This does not have to
have negative implications, so long as it is recognized and accounted for when it comes time to
draw conclusions. This is why it is so vital for those acting as witness to the past to understand
what within a testimony of the past requires interpretation. Seeberg, Levin and Lenz write that:

> The memories of any one individual or collective may only be adequately analyzed by taking into consideration the environment of this particular person or collective. The environment is formed by systems that interact with the individual or collective as well as with each other. This entails that the present environment is crucial in explaining individual and collective memories…Because memories of previous experiences are crucial when we interpret new situations, we act and interact differently according to our memories. As time passes, new events and experiences also shape our interpretations of old memories, thus giving them new life as continuous parts of the ongoing present. (5)

In the act of interpreting memory, it is sometimes easy to forget the cultural lenses through
which history is viewed. Frayn sets the play in a time and space that seems to be in some way above or outside of the narrative. Bohr, Margrethe and Heisenberg have survived beyond their mortal experience and are now looking at the events in question from a distance that suggests privileged understanding. But as the play unrolls, the audience discovers that despite being “dead and gone” (Frayn 3), the characters cannot escape their situation in time, and therefore they remain subject to their relationship with the past and the future.

In Freud’s theory of Nachträglichkeit, or belatedness, “memory is reprinted, so to speak, in accordance with later experience” (Phillips 33). In the case of Freud, this reprinting of memory occurs in the instance of trauma, when a previous experience is only recognized for what it was after an inciting event, which sheds new light on an old memory. In such instances,
the past can only be understood in light of the future. This privileging of the future in understanding the past extends beyond trauma theory into the study and recording of history. Like Bohr and Heisenberg, historians attempt to create a careful and causal narrative based on the knowledge and understanding of past events gained through the passage of time. But the events of the past determine the present, and the present remains open to the determination of the future. All moments in time are contingent on each other for meaning, and therefore everything remains incomplete and open-ended. Frayn’s unique setting does not allow for any sort of advantage based on temporality, because all time exists on the same plane in the play. Just as the characters slip easily between past and present tense, so too they move through time easily, returning again and again to “the beginning” (Frayn 38), only to bounce around to events that occur before and after the infamous visit.

While Frayn’s setting is presented as an otherworldly afterlife, by the end of *Copenhagen*, it seems that this afterlife is not so different from the “real” world—the world that Frayn and his audience inhabit. Even in their state of limbo, Margrethe, Bohr and Heisenberg are no more able to explain their past actions than those of a complete stranger, because meaning is still being determined. Eventually Margrethe explodes with frustration at the two men who continually try—and fail—to remove themselves from their own past. She yells:

> I’m sorry, but you want to make everything seem heroically abstract and logical. And when you tell the story, yes, it all falls into place, it all has a beginning and a middle and an end. But I was there, and when I remember what it was like I’m there still, and I look around me and what I see isn’t a story! It’s confusion and rage and jealousy and tears and no one knowing what things mean or which way they’re going to go. (73)
The construction of history presents a narrative based on a specific moment in time, but time continues to move and change everything in its wake. Frayn’s conclusion suggests a history that acknowledges uncertainty—not unknowability—and therefore a necessarily limited perspective based on the position of the observer. It is not the given right of those in the present to judge the past, for the present has been shaped by the events of the past, to the point that the only means of knowing are based on what has happened in the past and how they will unfold in the future.

Through this odd use of time that paradoxically suspends and emphasizes the effects of real time, Frayn revokes those in the present the right to judgment of the past. This becomes challenging when the task of interpretation is placed in the hands of the audience, allowing for multiple potential versions of history. Such a premise has a tendency to anger people. Frayn was lambasted by several critics (mostly historians and physicists) who accused him of historical relativism and revisionism. Many read *Copenhagen* as a disrespectful tarnishing of Bohr’s legacy. Even more read it as an apologist text, which attempts to clear Heisenberg of any Nazi sympathies or cooperation. Paul Lawrence Rose, a professor of Jewish studies and European history, argues that:

> Frayn perverts the moral significance of the meeting as well as distorting and suppressing its scientific and political agenda. Frayn instead sees it as emblematic of what is for him the central moral paradox of modernity: Was the saintly Bohr, who helped develop the Allies’ nuclear weapons, actually morally inferior to Heisenberg, the acolyte of Nazism, who failed for whatever reason to make a bomb? (B5)

According to Rose, Frayn ignores what historians and scientists know about the meeting between Heisenberg and Bohr in order to advance his dramatic depiction. He suggests that Frayn plays up
the ambiguity of history where there is none, placing Heisenberg and Bohr on the same moral
grounds. Other critics suggest that Frayn applied “quantum ethics” to Heisenberg in order to
excuse his participation in the development of the atomic bomb on the basis of irretrievable
intentions. They saw this as a slippery slope leading to a chaotic view of history in which no
guilt can be assigned so long as intentions remain unrecoverable. With this logic, they argued,
there would be nothing to stop the same benevolent ethics from being extended to Hitler.

Certainly, this type of ethics is problematic. But this is also not what Frayn is advocating
in his play. English professor Reed Way Dasenbrock explains that many of the critics who
complain about Frayn’s depiction of the two famed physicists have misread his parallel of the
uncertainty principle to the lives of his characters. Dasenbrock writes, “The uncertainty principle
is in the first place a description of the interaction of a particle and an observer. What it says is
that the observer has to choose what it is that he or she wishes to know exactly: if one chooses to
focus on the speed of a particle, then its speed can be measured exactly, but its location cannot
be. Or vice-versa” (226). Such a clarification of Heisenberg’s principle helps to then clarify how
to read Frayn’s take on Heisenberg’s visit to Copenhagen, and perhaps, history in general.
Dasenbrock continues, “Nothing here suggests that the knowledge one has is in any sense
uncertain, only that there are temporal limits to what we can know. In other words, our
knowledge of an event as it unfolds is necessarily partial, because our location as an observer
limits what we can observe” (226). In the above quotation, Dasenbrock articulates what is really
at stake in Frayn’s drama. Rather than offering a view of history in which nothing can be known
for certain, Frayn underscores how any historical account is necessarily and unavoidably limited.

With his small cast of three, Frayn demonstrates the triangulation that art makes possible
when approaching history. The witness (the author or artist) must always find a balance between
what Dasenbrock terms externalism (what can be observed) and internalism (intentions, motives, anxiety, trepidation—in short, what cannot be observed or known for certain) in order to fairly judge. Dasenbrock argues that because historians are limited by discipline to what can be observed, the artist offers something that the historian cannot. He writes, “the playwright's imagination can help the historian explain what actually happened…because [he or she] can speculate about unobservables much more freely than a historian can” (232). Historians and scientists, those who depend on hard facts and proven hypotheses, may cringe at the notion of speculation, but Frayn’s play is an attempt to remind audiences that all historical narratives involve and necessitate some degree of speculation. Dasenbrock is quick to note, however, that “this attempt to speculate about the thoughts and intentions of the characters does not move us into a relativist terrain: nothing here suggests that the truth is viewpoint-relative or that all the different versions are equal in truth-value” (229). This speculation that Dasenbrock proposes is akin to memory. Just because memory is personal does not mean that anything interpretation is valid or that everyone is left to choose his or her own version of history. But the personal nature of memory requires the witness of that memory to understand how to interpret the information (both external and internal) available in the testimony.

Frayn’s presentation of quantum ethics provides a system whereby memory is understood based on the perspective of the observer. The careful use of Heisenberg and Bohr’s science as an analogy for interpreting memory suggests a necessary awareness of the role of the observer and the standards of measurement being applied. Like the traces in the cloud chamber, a testimony does not reveal the event itself, but rather the effects of the memory as it moves through time and collides with other events. The observer must read the traces of these collisions in order to understand what they reveal about the original event.
Brief Glimpses: A Resistance Scrapbook

Frayn’s award-winning drama presents a way of looking at history that accepts the uncertainty inherent in memory. Analyzing a second text will help to further illustrate the way that acknowledging uncertainty opens up an understanding of history rather than negating the possibility of historical truth. In Los Angeles, California during the 1960s, Viggo Bjørn Sibbern compiled a five-volume scrapbook that included materials he had saved for over two decades. Sibbern was born in Soro, Denmark in 1916 and was trained as a bookbinder. During World War II, he worked as an inspector for the Danish police force, which was under Nazi control. He used his background in bookbinding to print forged documents and anti-occupation literature for the Danish resistance movement, fighting against the Nazis to help protect Danish Jews and fellow resistance fighters. After the war, Sibbern and his wife, Tove, immigrated to Canada, eventually arriving in the United States in 1955 and settling near Los Angeles, California. He again put his bookbinding skills to use in the compilation of documents, photographs and artifacts in an extensive multi-volume scrapbook about the war. Shortly before his death in 1967, Sibbern turned possession of the scrapbook over to Ruth and Dell Scott, a couple he knew through his involvement with a scholarship foundation called Thanks to Scandinavia. The volumes have since been donated to the United States Holocaust Museum and Memorial in Washington, D.C.

Through its very medium and content, the scrapbook presents a multi-layered text that exposes various tensions in the relationship between history and memory. This section will explore some of these tensions. First, I will introduce the idea of the scrapbook as a text and justify its analysis by situating it as postmodern historical literature, using the writing of Linda Hutcheon as a basis for my conversation. Using this theory, I will explore the content and form of the scrapbook to discover how Sibbern navigates his complex position between history and
memory. I will analyze his use of language as he struggles to accommodate for the splitting of the self across time that occurs in the act of inscribing memory. Sibbern’s writing suggests a frustration with his lack of control over future interpretations of the text, eventually conceding the inevitable impossibility of such totality. The scrapbook as a medium withholds the possibility of control because of the way that it fragments narrative voice and time. Scrapbooks are therefore an excellent illustration of the multi-directional trajectory of the archive, which attempts to preserve the past and anticipate the future in a single moment. In order to highlight these complexities, I will apply Jacques Derrida’s notion of the archive to Sibbern’s text in an attempt to understand the implications of his project. To conclude this section, I will problematize Sibbern’s declared purposes for creating the book, and attempt to address the question of whom this text is for and what they are to make of it.

Scrapbooks are not a common subject in the field of literary studies. They are often viewed as low-culture, kitschy, craft projects rather than counted as a work of art, literature or history. This is because they do not connote any sort of artistic ability or mastery of language, and they often take as their subject a highly personal and/or narrow topic. Sibbern’s scrapbook is hardly an exception to the first two points. The items on each page are not arranged according to any aesthetic design, and his work is stylistically and organizationally awkward in places. However, Sibbern’s scrapbook has a broader scope than his own life during the Second World War. Because Sibbern was involved in the Danish resistance movement, his memory overlaps with historical events. His work points to a larger narrative regarding the resistance and the war, allowing for the same approximation Frayn advocates for in Copenhagen. Through both content and form, Sibbern’s scrapbook testifies to the traumatic nature of the war.
In a discussion of memory and history, Sibbern’s scrapbook presents a fascinating document. In the space of nearly 250 pages that span five volumes, Sibbern collects newspaper clippings, photographs, ticket stubs, rations vouchers, Nazi propaganda, resistance song books, badges, arm bands, falsified passports and a variety of other materials. Each item is explained in a handwritten annotation from Sibbern. Sometimes these annotations are brief, but more often they are several sentences long, providing context and explanations of the object. Within these annotations, Sibbern will also include cross-references, pointing the reader to a related volume and page number for further clarification. The sprawling web of documents begins with a booklet attached to an otherwise blank page. Sibbern has handwritten an English translation of the title “Civil Defense”—‘Information booklet No. 1’ next to the book, and included the caption, “Way back in 1938 the danish government sent out regulations about Black-Outs and what to do in case of Air Attack. People laughed. Nobody believed there could come another war [sic]” (1: 2). From this tragically ironic opening, Sibbern moves through a loose chronology of the events of World War II and the Nazi occupation in Denmark.

The scrapbook is comprised of different voices, narratives and time structures. While Sibbern may not consider himself a self-conscious author, he inevitably becomes aware of the complexities of the very medium he is working in. Flyers, photographs, newspaper headlines and posters sometimes illustrate and at other times interrupt the narrative Sibbern constructs as he moves through history. Often, the items in the collection do not lend themselves well to being sorted according to date. Sibbern struggles to determine “What comes first? Even better: Who comes first? and second?” (Derrida 37). The question of when to introduce certain “characters” or concepts disrupts the chronology he attempts to assert on his collection. For example, it is not until the fourth volume, when his narrative has reached 1943, chronologically, that several
photographs of Hitler appear alongside the caption, “In unbelievable short time (1933-39) [the Nazis] had taken total power in Germany, built one of the largest War-Machines the world ever saw, thrown Thousands upon Thousands of political opponents in Concentration camps and
executed the first million of millions of European Jews [sic]” (4: 4, see Figure 1). Here and elsewhere, Sibbern grapples with the challenge of placing information that is relevant throughout all five volumes, yet does not belong to a specific moment in time that makes it easy to arrange.

Knowing who Hitler is and his significance to the other items is perhaps a given, regardless of the audience. However, other less obvious information (like details about the resistance group Sibbern is part of and the specific role he plays in their efforts) also arrives belatedly or else in fragments throughout. Sibbern’s cross-references are an attempt to combat the complex temporal composition of his work, but they further disrupt a chronological trajectory. He can never make available all the necessary information in sequential order, because his text—like his memories—has no one specific order. As Felman and Laub explain, Sibbern’s experience, “although real, took place outside the parameters of ‘normal’ reality, such as causality, sequence, place and time” (69). It thus conveys Sibbern’s memory not of the past, but of “an event that could not and did not proceed through to its completion, has no ending, attained no closure, and therefore, as far as [Sibbern is] concerned, continues into the present and is current in every respect” (69). Like the arrangement of the scrapbook, other metatextual elements of the medium bear testimony to Sibbern’s experience. These elements include the margins, gutters and other white spaces of the text that surround each artifact and its description. The reader encounters as much that remains unsaid and unrecorded as that which has been written.

There are gaps, not only in the empty spaces, but in the different ways to experience the text. Several pages include a booklet, a pamphlet, a foldout poster or something similar. These texts within Sibbern’s text also ask to be read, but in those moments, Sibbern relinquishes an “individual authorial voice” (Katriel and Farrell 11), which is subverted “as the mode of
detachment and re-adherence, of graft and citation, collage inevitably undermines the authority of the individual self” (Perloff 76). As the reader moves through the multi-layered text, they do so without a prescribed reading strategy. They can choose to flip through the pages of inserted texts, to translate them and read them closely, or to skip them altogether. The reader can also decide to follow Sibbern’s cross-references or to read in a more linear, traditional way. Each encounter with the text will be different, which points towards a multiplicity of interpretive possibilities.

Figure 2 A page from Sibbern’s scrapbook, including an unlabeled booklet.

Figure 3 The same page shown in Figure 2, with the booklet opened.

The collage of historical artifacts assembled in a single text and stitched together with a loosely chronological non-narrative that encourages an unconventional navigation reveals itself as utterly postmodern. As is typical in postmodern literature, Sibbern demonstrates a self-
consciousness of the limitations of his text. He is careful to acknowledge his position as always and inescapably subject to the present. In so doing, he demands that his text be read and interpreted according to the reader. Literary theorist Linda Hutcheon, discussing postmodernism, borrows a quotation from Lionel Gossman to summarize the complex nature of history as it relates to reality and language, suggesting that postmodern history and literature “conceive of their work as exploration, testing, creation of new meanings, rather than as disclosure or revelation of meaning already in some sense ‘there,’ but not immediately perceptible” (Gossman 38-9). Sibbern’s use of historical documents in such a highly personal medium emphasizes that what appears to be undisputed fact must also be interpreted. This is not an effort to deny the significance of the documents and objects, but to question a stable meaning. Hutcheon clarifies that “in arguing that history does not exist except as text, it does not stupidly and ‘gleefully’ deny that the past existed, but only that its accessibility to us now is entirely conditioned by textuality. We cannot know the past except through its texts: its documents, its evidence, even its eyewitness accounts are texts” (16). In this sense, there is not a denial of history so much as a questioning of any final interpretation of it. The reader or the audience of history must continually engage with history and ask questions of it. In works like the scrapbook, this engagement includes an analysis of the form as well as the content of the text. It requires an understanding of the spaces between and the ways the items connect. Sibbern seems anxious to provide an explanation, but also painfully aware of his lack of ability to convey meaning through words and objects. His own memory is much richer and more complex than even his elaborate scrapbook can communicate.

The compulsion to explain everything and his resulting frustration because of his inability to do so is a problem Sibbern wrestles with throughout all five volumes of the scrapbook. In the
process of creating the scrapbook, he unavoidably and inadvertently realizes that despite his best efforts, much of what he experienced “will not stand out in the following pages” (Sibbern 1: 1). He acknowledges his frustrations in the dedication to the scrapbook included at the beginning of the first volume. In the dedication, Sibbern dedicates the volumes to his only daughter, Lisa, and enumerates his reasons for creating the scrapbook. His reasoning suggests an attempt to navigate the complex relationship between the past and the present, private and public narrative, memory and history. He defines the limitations of the collection, describes what he hopes his daughter will gain from reading it, makes a request for the eventual fate of the work, and issues a warning to the reader. Clearly, Sibbern intends for the scrapbook to communicate much of his experience to his daughter and to help her understand her parents’ past. However, the process of compilation and annotation has exposed an inability to convey precisely his experience. Sibbern’s final paragraph includes a plea to Lisa to ask questions about what she reads. This invitation is an attempt to account both for holes in the existing narrative and the relentless march of time which changes and shapes interpretation.

The anxiety of misunderstanding is common in the creation of scrapbooks, where an object acts as a signifier to an undetermined or unshared signified. In a study about the process of scrapbook making, linguistics professor Thomas Farrell and communications professor Tamar Katriel surmised:

At times, the pictures and objects included in the scrapbook are accompanied by some written caption or commentary. But even then the “story” they tell is never complete; it might be meaningful to outsiders in a generic sense as an account of “a possible life,” with the items serving as tokens of culturally shared types of events or experiences…However…there is a kind of private poignance to all these
artifacts that seems to invite and yet defy the onlooker’s gaze. The ways these potentially meaningful occasions were individuated in significance for the particular person cannot be directly discerned from just leafing through the scrapbook. (10)

Sibbern attempts to provide adequate explanations of the materials assembled in the scrapbook, but they can never fully convey his experience. This is because the memories are situated within an entire network of context gained over a lifetime of experiences. This is not to say that the scrapbook holds no value to anyone but Sibbern, but to recognize that despite all that he has saved and assembled to pass on, there are certain things that cannot be captured within the pages. It is as if:

The owner’s active mediation between this skeletal text and its occasional reader is necessary as a bridge. This bridge seems to bring together the onlooker’s general cultural knowledge of the genre and an appreciation of the owner’s subjective experience which [his] presence infuses into each of its tokens. Thus, whereas the scrapbook’s coherence is grounded in general cultural assumptions, the particularized meaning and significance of each scrapbook lies in the privileged eye of its maker and protagonist. (Katriel and Farrell 10)

Sibbern’s daughter and any other reader of the scrapbook can certainly make sense of the included information from a general cultural perspective. In fact, the rare photographs and original documents would likely be a helpful or at least interesting addition to any study of World War II. Sibbern himself is aware of the objective value of these artifacts and even states in his dedication that “People in Denmark wished to buy certain items for a rather large sum of money…as many items are ‘One of a Kind’ [sic]” (1: 1). However, Sibbern is attempting to do
more than supplement his daughter’s text books. There is an underlying personal emphasis, despite the fact that many of the entries in Sibbern’s scrapbook make no mention of him. At the heart of any scrapbook, Katriel and Farrell argue, is a presentation of the self. They explain, “Scrapbooks are…shared with people who did not share with the owner the past times covered in the scrapbook. In such cases, reminiscing is oriented toward self-display through the recounting of stories and anecdotes about the owner’s past life for an interested audience” (13). Sibbern's scrapbook, similarly, testifies to a self, regardless of the fact that his subject is the Danish resistance movement. Inherent to the scrapbook is the subjectivity of its creator.

As has been previously mentioned, Sibbern is obliquely aware of this subjectivity. Whereas Frayn deliberately manipulates the subjectivity of his characters in order to underscore its inevitability, Sibbern’s understanding of his own limited perspective arrives rather unwittingly, and in the end it seems he foregrounds his individual position in an effort to then move past it. In the dedication, he sets some parameters for his collection, explaining what it is and what it is not. He clarifies that “It could as a whole be titled: ‘Denmark during the War and the German Occupation’, but it is not supposed to be a complete history from that period, but rather it will show brief glimpses from the war years in Denmark, as seen with the eyes of average people” (1: 1). This clarification comes early in the dedication, establishing a personal perspective rather than claiming to be an official history. In fact, Sibbern goes on to suggest that in order to understand the contents of the scrapbook, his daughter “will probably have to read up on the history of the Second World War” (1: 1). Despite hundreds of pages of actual artifacts and first hand testimony, Sibbern is faced with the need to provide context because of the limitations of an individual perspective. Each item is steeped in meaning for him, which may not translate easily to the reader. Katriel and Farrell explain that even in a scrapbook like Sibbern’s, where the
collection is assembled in anticipation of future readers, the collection as a whole reflects the life of the scrapbook’s creator. They write:

Despite the future orientation inherent in putting together a scrapbook, the decision to include or exclude an item is based upon the owner’s judgment of significance at the time of compilation. In this respect scrapbooks are a celebration of subjectivity: the cumulative product of a series of decisions by a unique individual, with a unique life-history… What is retained in it are not the items as such, but the items as significant tokens, as concrete indices of meaningful contexts, even if those contexts can be recaptured only in a fragmentary way. (8)

Throughout the first half of the dedication, Sibbern emphasizes the personal nature of the scrapbook and the story it tells. He explains that he gathered most of the collection with help from his wife, as well as his parents. He credits his father for storing the collected documents and artifacts at great personal risk and despite the money the more unique items could have fetched if sold. As it appears in the dedication, it was very important to Sibbern to pass the collection on to his daughter, and for her to “keep [it] intact” (Sibbern 1:1). It is only as a whole that the collection testifies to the message Sibbern is attempting to convey.

To complicate this problem even further, it seems that Sibbern is conflicted as to who his audience is. Up until this point, all stated intentions for the scrapbook are extremely personal. The timeline for the project, however, reveals that Sibbern’s collection was likely intended for a wider audience. Lisa was born in 1956, after Sibbern and Tove immigrated to America. Despite her father’s insistence that “We have saved it for you” (1:1), the gathering and preserving of the various items began well before Lisa was born. Of course, it is possible that Sibbern began
collecting documents for any of his hypothetical progeny,\(^7\) and there is no doubt that Sibbern had his daughter in mind throughout the creation of the scrapbook, regardless of his reasons for beginning the collection. However, a closer look at the dedication and annotations indicates that Sibbern collected, preserved and compiled the scrapbook for an audience outside of (or in addition to) his direct descendants. He tells his daughter, “if you ever want to part with it—offer it to a museum either here [in the United States] or in Denmark” (1: 1). Given that the scrapbook is now in the archives of the United States Holocaust Memorial Museum, this suggestion is neither shocking nor inappropriate, but it does raise questions. His position as a witness is affected by who he is testifying to, making Sibbern’s anticipated audience an important element of the scrapbook. Just paragraphs earlier, Sibbern explicitly stated that the scrapbook is not supposed to be taken as a general account. Yet his request that his daughter donate it to a museum suggests that he has positioned himself in such a way so as to address a multitude of audiences. In this effort, he necessarily fragments the self he is presenting.

He acknowledges this possibility in the annotations throughout the scrapbook. The annotations are a unique blend of biographical and historical summary and they hint towards the Sibbern’s anticipated audiences. While most of the annotations are simply explanatory, they are also often directly addressed to his daughter. If the explanation involves him, he will first refer to himself as “your father.” However, after this initial reference, Sibbern then switches into first person. In one of several examples of this flexible perspective, Sibbern describes recruiting a

\(^7\) Interestingly, it appears that Sibbern did have a son who was alive when he began his collection. On Sibbern’s United States naturalization record from November 9, 1961, he lists two children: Lisa, born in New York in 1956 and Sven, born in Denmark in 1942. He indicates (rather ambiguously) that both Lisa and Sven reside with their mother. Sibbern married Tove Gregersen in Roskilde, Denmark in 1951. Tove’s naturalization record lists Lisa as her only child, suggesting that Sven is the child of a previous relationship and that he remained in Denmark with his mother.
young man named Dres Work to illustrate some literature for the resistance movement. Next to a doodle of a clown, Sibbern explains, “At the very first staff meeting we had, [Dres Work] drew this Beauty...Your Father liked it so well, it was saved, and later I asked Dres to illustrate an ‘underground’ book...we were working on [sic]” (Sibbern 5: 8). This is an inclusive act on Sibbern’s part. As he switches between these different perspectives, he attempts to account for any and all who may read the scrapbook. In another instance, he again uses this shifting point of view to recount his experience of being arrested and questioned. He writes, “Your Father was questioned daily for 6 days. I was under ‘suspicion’, but had my papers (vol. 3 page 7-8) and my answers ready. One day I was being questioned for a little more than 14 Hours. I fell asleep, sitting up, and they gave me up. The next day, I was released [sic]” (5: 17). His narration simultaneously distances the audience and draws them closer. By referring to himself in the third person, he separates himself from the subject, almost as if recounting the story of someone else, who did not survive the war. But then he begins to use first person, focalizing the narrative from his individual perspective.

Through this use of language, Sibbern underscores the complexity not only of his own narrator position but also of his complex relation to the different temporal moments of the scrapbook. In many ways, he is testifying of another man’s life. When he compiles the scrapbook, he is writing in America, from a safe distance, at least twenty years removed from the events, knowing what happens next. But the memory of the past is also very much a part of him, his experiences casting a long shadow on the events of his life. As Katriel and Farrell articulate, “The contexts of narration and of reminiscing underlie the dual temporal orientation of the scrapbook experience; and although they are brought into close contact, they are never collapsed” (8). It is perhaps because these events and objects continue to resonate in his life that
Sibbern’s inability to tell a complete story is revealed. There is no way for him to arrive at either the end or the beginning. Just as he could not determine a satisfactory organization of those items that stand outside chronology, in the act of witnessing, Sibbern is faced with the reality that there is no end to this story. Whereas most scrapbooks attempt to convey “the unity and coherence of life” (Katriel and Farrell 14), Sibbern is quite open about the lack of coherence in his work. He describes it as a series of “glimpses” (1: 1) and encourages his daughter to ask questions, opening up a conversation rather than foreclosing on any definitive meaning.

As a series of glimpses, an attempt to represent the past for the sake of future generations, Sibbern’s text manifests itself as an archive. Pierre Nora suggests that archives are assembled in the anxiety of the present; items and records are gathered together in order to freeze a moment in the past and to prepare for an unknown future. He writes:

The fear that everything is on the verge of disappearing, coupled with anxiety about the precise significance of the present and uncertainty about the future, invests even the humblest testimony, the most modest vestige, with the dignity of being potentially memorable…We have felt called upon to accumulate fragments, reports, documents, images, and speeches—any tangible sign of what was…We cannot know in advance what should be remembered, hence we refrain from destroying anything and put everything in archives instead. (8-9)

Nora identifies the same challenge that Sibbern faces in assembling his collection. Unaware of what will be relevant, Sibbern has saved a wide variety of documents and artifacts. His decision to preserve the items is “both retrospectively and prospectively oriented. It is a gesture towards the past, an attempt to salvage some aspects of one’s ‘lived past’ from the ravages of human
forgetfulness, but with an eye to a future for which this constructed past can be a meaningful antecedent” (Katriel and Farrell 7).

Likewise, Jacques Derrida, in his book, *Archive Fever*, explores the nature and function of the archive, noting the dual function identified by Katriel and Farrell. He suggests that the archive is both “institutive” and “conservative” (Derrida 7). For Derrida, an archive is comprised of externalized memory; the moment something is inscribed, it becomes an archive. This archive becomes a way to preserve a remembered past, fulfilling its “traditional” role (7). But the archive becomes “revolutionary” by “making the law” (7). In other words, on the one hand, the archive shaped by tradition. But it is also critical in shaping the future. The tension between these two functions of the archive is what Derrida explores throughout his book, and also what plays out in Sibbern’s scrapbook. In one sense, Sibbern preserves the past by compiling an archive that is external to himself. He has inscribed the memory through writing and collage so that the memory can survive him. However, in the act of inscription, a violence occurs. He has placed the memory outside of himself and so has necessarily decontextualized it. Each of these items has significance as it relates to him, and the archive attempts to remove the individual from its construction.

Despite this attempted separation, the archive remains the product of the individual it attempts to erase. All that is unsaid or excluded also becomes inscribed, “because repression is an archivization” as well (Derrida 64). The archive merely indicates that which has been lost through archivization and that which has been repressed and therefore preserved in archivization. Similar to Nora’s configuration of the archive, Derrida notes the feverish anxiety of the present to preserve the past in light of an anticipated future. However, when the future arrives (in the present), what has been saved from the past is deemed unable to answer those questions that are
demanded of it. Sibbern tries to anticipate the questions those in the future will have by saving as much as he can and by keeping “the collection intact” (Sibbern 1: 1). By saving certain items throughout his life and then including them in the scrapbook, Sibbern “delivered [them] from their ephemeral existence as transient objects in the world, objects which turn into rubbish with the erosion of their use-value. Instead of such an untimely though routinized demise, [the items] are redeemed as elements within a new text: the life-story recounted in words and objects” (Katriel and Farrell 5). By inscribing these items in the archive, Sibbern destines them to have significance in the future. Derrida explains the way that “the technical structure of the archiving archive also determines the structure of the archivable content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event” (17). In this sense, the items or the events on their own do not hold meaning. But as part of the archive, they hold all the possibilities of meaning that remains to be determined in the future. Like Freud’s principle of belatedness, it is only in the future that the archive can be understood. This also means that nothing is outside of the archive, there is no locatable beginning or end. For Derrida, the future is always being anticipated, the past always being mourned, and the present exists as the moment when all of this takes place.

The scrapbook is not a collection of old documents and objects that cannot convey their intended meaning. It is a collection of old documents and objects that must be read in order to create meaning. The objects do not passively signify. Sibbern speaks from a personal perspective, foregrounding everything he writes in his role as Lisa’s father and as a Dane who resisted the Nazis. His perspective is underscored, not to convince people to adopt his view, but in order to highlight its limitations. He speaks from a particular time, place and bias. He recounts the events of the Danish resistance several years after the fact, as a father and a naturalized
American. His dedication reveals his hesitancy to conclude his narrative. He pleads to keep the conversation open, to contextualize information, to ask questions, and to engage. The medium of a scrapbook allows for such an openness: a new page or volume can always be added. Ultimately, the scrapbook is meant to help Lisa and other readers create their own memory of the resistance. Among the photographs and other documents that indicate objectivity and historical accuracy, Sibbern emphasizes his subjectivity and invites his readers to do the same. The project seems to be an effort to remember in order to move forward, acknowledging that the past is not fully understood, even in hindsight. In his final statement in the dedication, Sibbern suggests that this scrapbook is meant to open a conversation, not to become the final word on the topic of the Danish resistance or the war in Denmark. He reminds Lisa (and other readers) that “we [Sibbern and his wife] will still be around—for a long time, we hope—when you have read and looked through all this. So, just ask questions” (1: 1). This seems to be an invitation that only his daughter and other readers who know him personally would be able to take advantage of. However, the sentiment behind it suggests that the past is relative to the future. Given Sibbern’s prior recognition of a readership outside his own family, this invitation to engage with the past can also be taken as a general suggestion. The resistance, the war, Sibbern’s life—nothing is understood fully by reading the scrapbook. The significance of these events cannot be determined finally because the effects continue to multiply through time. Each new reader will find new meaning through an intentional conversation with the text.
Uncertain Witnessing

As a Derridian archive, Sibbern’s scrapbook points more to the empty spaces than to a cohesive past made from the collected items. Like any account of history that relies on historical “fact” without theorizing the spaces between, the scrapbook cannot deliver the past to the reader in the present. Instead, the past must be understood in terms of the present. The scrapbook, I have argued, reveals the complex relationship between the past and the present. Sibbern writes about his past in light of what he imagines future readers will find relevant or need to know. He can only write from the present, contemplating both the past and the future of that moment. But time refuses to be arrested, and so the relationship to both the past and the future is ever-changing. Therefore, Sibbern’s readers have an obligation to interpret the collection, realizing that the questions being posed to the text are likely questions that are not inherent within the work. To gain access to those answers, the reader must leverage his or her own situation in the “eternal” present and the ways in which he or she has been shaped by the past. This is the human condition, not to be lamented. Andreas Huyssen, an important scholar in the field of memory studies, writes:

Given this selective and permanently shifting dialogue between present and past, we have come to recognize that our present will inevitably have an impact on what and how we remember. The point is to understand that process, not to regret it in the mistaken belief in some ultimately pure, complete, and transcendent memory. It follows that the strongly remembered past will always be inscribed in our present, from feeding our unconscious desires to guiding our most conscious actions. At the same time, the strongly remembered past may turn into mythic
memory. It is not immune to ossification, and may become a stumbling block to
the needs of the present rather than an opening in the continuum of history. (250)

Huyssen’s point is that a focus on recapturing “pure,” uninhibited memory is both impossible
and undesirable. Rather, “As time passes, new events and experiences also shape our
interpretations of old memories, thus giving them new life as continuous parts of the ongoing
present” (Seeberg, Levin and Lenz 5). To hold too tightly to a past interpretation of the past is to
deny the function of memory and therefore to ossify it so that it becomes a stumbling block
rather than a stepping-stone on the way to the future.

*Copenhagen* is an attempt to suspend the tight grasp on the past that history claims
regarding the meeting between Bohr and Heisenberg. Michael Frayn based his depictions of
Werner Heisenberg and Niels and Margrethe Bohr on information found in letters, journals and
other historical documents, but, as he admits, “Even when all the external evidence has been
mastered, the only way into the protagonists’ heads is through the imagination” (97). After
*Copenhagen* was published, the Bohr family released several drafts of unsent letters written from
Bohr to Heisenberg regarding their meeting in 1941. It seems that in reality, both Bohr and
Heisenberg were preoccupied throughout their lives with understanding the meaning of this
meeting. But both physicists (and critics of Frayn’s play) failed to realize that meaning is not to
be found in attempting to discover a narrative that satisfied both of their memories. Frayn
concedes, “It is imaginable that there is some evidence, somewhere, that would put beyond doubt
what occurred at the meeting. But that still would not put beyond doubt what Niels Bohr thought
Heisenberg’s intentions were, and what Heisenberg had thought Niels Bohr understood of the
meeting. That would be just as elusive as ever” (PBS *Hollywood Presents*). Even among the
unimpeachable facts of history, the unknown remains to be navigated through imagination.
The demand for imagination is emphasized in both the scrapbook and *Copenhagen*. If uncertainty always impedes a full understanding, if gaps appear in even the most extensive archive, the value of these and any other text or history may be questioned. Studies of history and even literature often demand a sort of finite understanding, a truth declaration or a conclusive statement. But what these two texts offer in being read together is a refusal to foreclose on the absolute meaning of the past. Both Sibbern and Frayn emphasize subjectivity at the heart of events that history does not want to be subjective. While Sibbern recounts the events of the Danish resistance movement using external evidence, his archive is assembled in the only way he could possibly do so, with himself at the center. And while Heisenberg, Bohr and Margrethe are debating an event that had worldwide implications, they are really attempting to understand their own personal memories.

The attempt to understand history begins with an attempt to see the self and to recognize the role of the self in the creation of history. Both Sibbern and the characters in Frayn’s play attempt to navigate that distance in order for history to even have a hold on their memory. This requires the creation of new memory in the present, memory that foregrounds subjectivity. Bohr remarks, “Throughout history we [mankind] keep finding ourselves displaced. We keep exiling ourselves to the periphery of things” (Frayn 71). The solution he suggests is to “put man back at the centre of the universe” (71). The climax of *Copenhagen* comes when Frayn’s characters realize that “one single soul [is] the emperor of the universe, no less than each of us” (91). They finally accept that each man can only see from his own point of view, and each individual must account for that. With man at the center of the universe, a blindness occurs. Man alone is unable to see his position in history without “introducing some new element” (Frayn 67) with which the self at the center can interface.
At this crucial moment in Frayn’s play, the characters realize not only their position at the center of the universe, but the need to “collide” with others in order to understand how they behave within the system. Heisenberg articulates this dual realization, sensing the gaps in his vision as he interacts with Bohr and Margrethe. He ponders: “Here I am at the centre of the universe, and yet all I can see are two smiles that don’t belong to me…I can feel a third smile in the room, very close to me. Could it be the one I suddenly see for a moment in the mirror there? And is the awkward stranger wearing it in any way connected with this presence that I can feel in the room? This all-enveloping, unobserved presence?” (86-7). All three of the characters experience this blindness that belies their subjectivity, and each of them navigates it through a triangulation with the others. Bohr tells the audience “I glance at Margrethe, and for a moment I see what she can see and I can’t—myself” (87). In order to understand the past, he must understand his role in it, which requires him to search the gazes of Margrethe and Heisenberg to measure how he has been “deflected” (69). Frayn teaches his audience that it is not solid conclusions that are discovered by measuring deflection, but instead what is discovered is “a series of approximations” that exist “only within the limits determined by our relationship with it. Only through the understanding lodged inside the human head” (71-2). The knowledge gained from interacting with the text is contingent on the relationship the reader has with what is (and is not) there. This is why subjectivity is essential to interpretation, and not because the reader can choose to make whatever meaning he or she chooses.

In an epilogue to the 2002 PBS Hollywood Presents production of Copenhagen, Michael Frayn suggests that “This play is about the difficulty of knowing why people do what they do. It is also about the difficulty of knowing why one does what one does oneself. And in the end, it comes to the conclusion that in order to understand ourselves, we have to talk to other people.
We have to see our ideas reflected in other people.” Sibbern comes to the same conclusion when he urges his daughter to “ask questions” (1: 1). Both texts are asking the audience to witness to history from their own perspective.

Shoshana Felman and Dori Laub have one of the best known and exceptionally written studies on testimony and witnessing.\(^8\) Felman is a comparative literature professor and Holocaust scholar, while Laub is coming to the study as a medically trained psychoanalyst. In their study, they explore what it means to witness. One of their key points is that witnessing is a creative act. By bearing witness to the experience of another, “the listener…is party to the creation of knowledge” (Laub 57). The audience is the co-creator of a new memory, that of the testimony.

Marianne Hirsch, another important scholar of memory studies, applies Felman and Laub’s findings to her own study, discovering that witnessing creates a “triangulation of looking…in itself an act of memory” which reveals itself to be “an act in the present on the part of a subject who constitutes herself by means of a series of identifications across temporal, spatial, and cultural divides” (Hirsch 6). The listener must recognize himself in order to be “at the same time a witness to the trauma and a witness to himself” (Laub 58). Understanding the self and the history being witnessed is essential, because the witness is bearing testimony “to an event that has not yet come into existence, in spite of the overwhelming and compelling nature of the reality of its occurrence” (57). Think, for example, of the event being witnessed in *Copenhagen*. The implications of that event did not exist at the time it took place, they came belatedly, when the German bomb project failed and the Manhattan Project succeeded. Those in the present want

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\(^8\) Felman and Laub’s book, *Testimony*, uses survivors of the Holocaust as its subject. My use of Felman and Laub’s work is not an effort to equate the events in *Copenhagen* and Sibbern’s scrapbook to the suffering and trauma of the Jews during the Holocaust. However, I believe that their work has important applications beyond the atrocities suffered by the Jews during World War II.
to understand Heisenberg and Bohr’s involvement in these respective endeavors, a question that cannot be answered simply through remembering what happened.

There is an ethical component that requires an understanding of the past and the present in order to know what is being witnessed. Laub cautions that an awareness of the past can lead a listener to use the testimony as a confirmation of what they already know or believe, but a good listener will be able to use their knowledge in order to “hear the silence” of testimony and to help bring into existence what can otherwise not be witnessed (Laub 58). Katrine Antonsen is a literary scholar who specializes in the study of ethics in Frayn’s works. Speaking of ethics in regards to Copenhagen, she suggests:

The play allows its audiences to recognize the ethical issues actually faced by the three historical characters in 1941. It further invites audiences to imagine to what extent these historical characters might have perceived these moral challenges and how they might have responded to their perceptions. Finally, it puts audiences in a position to consider the ethical adequacy of Frayn’s depiction of such challenges, perceptions, and responses. (122)

Witnessing accounts for uncertainty, because it places the audience outside of the realm of observable external variables and instead studies the deflections of these variables to imagine possible explanations. Witnessing is an approximation based on the behavior of the external variables, but not limited to them.

On a certain level, memory is always subject to history. In Sibbern’s scrapbook, the historical significance of his collection cannot be denied. However, it is in the work of memory that what he bears witness to is revealed. The pictures, documents and artifacts are meaningless if Sibbern has no one to hear his testimony. This is why he asks his daughter to ask questions,
because his archive is inadequate to express his experience, just as the records of bugged conversations at Farm Hall will not help Heisenberg convey his intentions (Frayn 81). These records contain in them the same uncertainty as the trace of an observed particle. They provide only a series of glimpses. However, this does not mean that they should be dismissed, only that the second pillar of the Copenhagen Interpretation must also be established: complementarity. Heisenberg muses that:

> Exactly where you go as you ramble around is of course completely determined by your genes and the various forces acting on you. But it’s also completely determined by your own entirely inscrutable whims from one moment to the next. So we can’t completely understand your behavior without seeing it both ways at once, and that’s impossible. Which means that your extraordinary peregrinations are not fully objective aspects of the universe. They exist only partially, through the efforts of [an observer], as our minds shift endlessly back and forth between the two approaches. (69-70)

Complementarity is the means by which to account for uncertainty through the imagination of multiple possibilities at once. Witnessing is the act of the observer that balances out the behavior of the subject according to what can be seen and that which can only be imagined. Creative memory thus flourishes in the midst of the uncertainty of history.

The coupling of uncertainty and complementarity is precisely the grounds whereupon Frayn can develop a theory of quantum ethics. After several rehearsals of the central event, the characters and the audience are no closer to arriving at a consensus. Finally, Heisenberg suggests that in the face of such uncertainty, “we should need a strange new quantum ethics” (Frayn 92). This quantum ethics “seem[s] to express what we know and do not know about ourselves and

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each other, and the consequences of partial knowledge for moral life” (Velásquez 150). For
Frayn’s characters, possibility is preserved in “the peculiar benefits of knowledge they did not
have” (153). Eduardo Velásquez, a political philosopher, stresses the important way in which
such a model is both personal and shared:

The protagonists discover their own ignorance, appreciate each other’s, and thus
come face to face with collective uncertainty. A new way of looking at the
universe and each other dawns on them. As we shall see, the new vision does not
belong wholly to each protagonist, but neither is the viewpoint wholly another’s.
This new view of things is not strictly objective, a view somehow detached from
the viewer’s perspective, but neither is it strictly subjective, a view impenetrable
by the eye of another. We have the means by which to avoid radical objectivity
and radical subjectivity. Complementarity emerges alongside uncertainty. We can
now imagine the contours of a “quantum ethics.” (152-3)

History is necessary in providing an observable series of glimpses, but it only goes so far.
Through the type of responsible and meaningful engagement demonstrated in the quantum ethics
of Frayn’s Copenhagen and Sibbern’s scrapbook, the audience creates a new memory through
witnessing, thereby giving significance to the otherwise obscure traces of history.

The two disparate texts resonate because of the balance they strike between objectivity
and subjectivity. Those who view Sibbern’s scrapbook as an index of rare artifacts miss the
opportunity to engage with his memory and to create something alongside him. And the readers
and viewers of Frayn’s play who complain about his oversimplification of science or his
inaccurate depiction of Heisenberg and Bohr misinterpret the openness of his text as a nihilistic
dismissal of a history too vast or too uncertain to be of value. These misreadings are also those
that would view a new and inclusive narrative of the Danish Resistance Museum as a denial of history and a dishonor to the memory of those involved. But this is not so. To deny history would be to foreclose on it, to suggest a definitive reading and an absolute conclusion. To dishonor the memory of those who have gone before is to refuse to engage with it—holding the past at a distance and ignoring the place each individual has in the continuous flow of time. To be party to the event of witnessing requires those involved to take accountability for their agency in shaping what it is that is being remembered. The aim of history and memory should be a flexible, imaginative, quantum view of the past that engages with both the external and internal traces.


