A Clear Day and No Memories
On Kerry Tribe's *HM*

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In order to begin I must tell a horror story. I will try to mitigate, not minimize, the horror, through accuracy of telling, through facts, and a degree of humility before them. Yet I will also acknowledge the horror. I mean I already have. I say "yet" because horror is not fact, but subjective response to fact. Maybe philosophy has a tradition of such beginning – the telling of the horror if not the acknowledgement. Some forms of understanding issue only from destruction's revelation. Neurology's grasp of general brain function, of memory, has advanced through episodes of particular catastrophic failures of individual brains. I mean a self-correction of consciousness arose from a fresh understanding of what memory claims as its own. Anyway that is the story's redemptive hope. It seems a small hope to take away from the destruction of a life, or a large part of it. But that hope arrived by accident, as well as from an accident. If a way exists to soften the blows that commence in 1935, when a bicyclist collides with 9-year-old Henry who falls and hits his head in Manchester, Connecticut, that way is unknown to me, unknown and undesirable.

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Manchester is in Hartford County, was part of Hartford from its settlement in 1672 until 1783, when East Hartford separated, including Manchester. In 1823 Manchester became its own municipality. So it was that the town had the name Manchester rather than Hartford in which 9-year-old Henry lay unconscious for five minutes in 1935 after the bicycle collision. The place's significance to the story is less in question than its significance to philosophy. The latter we might call *my* question. Does philosophy have a place? Does locating it make it cease to function as philosophy, and start to function as history? What about neuroscience? *Each science confines itself to a fragment of the evidence and weaves its theories in terms of the notions suggested by that fragment. Such a procedure is necessary by reason of the limitations of human ability. But its dangers should always be kept in mind.* Alfred North Whitehead said that in a lecture in 1938. By danger I think he means danger to philosophy, for which such patchwork procedure, the necessary fragmentation of the sciences, might acclimate us to a kind of delirium. *Philosophy is the product of wonder*, he said to begin that lecture. Maybe wonder includes horror. The subjective response to fact must remain as a precondition, if philosophy is to be its effective product. Therefore, in order to begin, I must tell a horror story, and must keep the horror close in order to arrive at some understanding of what happened to Henry.

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In 1936, at the age of 10, or within one year of the head trauma sustained from the bicycle accident, Henry had his first minor seizure, called an *absence*, an episode described by Suzanne Corkin, a neuroscientist from MIT, as follows: *he would just drop out for a second or two, and then pick up where he left off.* What did he drop out of, exactly? In 1942 on his 16th birthday he experienced his first major seizure, a generalized convulsion. Epilepsy: to seize, a word from medieval Latin: *ad proprium sacire*, to 'claim as one's own.' Epilepsy staked its claim in 16-year-old Henry, and gripped him ever more tightly as the years passed. It delayed his graduating from high school, and when he went to work as a motor winder, the increased frequency of the seizures made him give up that job, made any employment impossible, strained his family relationships. Anticonvulsant medications carried significant side effects. As Dr. Corkin says, his *life prospects were rather dismal*. I offer all of this as setting the stage for the entrance of William Beecher Scoville, the head neurosurgeon at Hartford Hospital, and not to excuse as much as to resist the temptations of judgment, to offer Suzanne Corkin as exemplary of such resistance. What would I have done, I wonder, with the fragments of evidence presented? Where precisely in the story does the horror lie? Dr. Scoville believed he could cure Henry's epilepsy by removing a portion of his brain, specifically, the hippocampus, wherein he thought, correctly it turns out, Henry's seizures originated. One might say the cure removed part of his brain and part of his name, because afterward he would be referred to by initials. Dr. Sue Corkin will narrate now.

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In 1953, when H.M. was 27 years old, Dr. Scoville performed what he called a "frankly experimental operation" in which they removed tissue in an area toward the middle of the brain, right above the ears. This was called a "bilateral medial temporal lobe resection." During the operation, Dr. Scoville made two small holes in H.M.'s skull. Through these holes he inserted retractors which he used to lift up the front part of the brain – the frontal lobes. Aspiration requires inserting a small instrument into the intended target and sucking out brain tissue. So Scoville proceeded to remove the hippocampus on both sides along with the cortex surrounding it …

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The writer Richard Powers, in his 2006 novel *The Echo Maker*, allows a character a less equanimous rendering of the story, as follows: *One summer day half a century ago* […] *an ignorant and overzealous surgeon, trying to cure H.M.'s worsening epilepsy, inserted a narrow silver pipette into H.M.'s hippocampus … and sucked it out, along with most of his parahippocampal gyrus, amygdala, and entorhinal and perirhinal cortexes* […] *The young man* […] *was awake through the entire procedure*.

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I do not mean to take sides in this story, if it offers sides, other than H.M.'s, or that of philosophy, to be taken. As I said at the start, the facts make their own demands of humility, of equal mindedness. What does the taking of the side of philosophy mean after those facts, and their unforgiving consequences? I mean for their understanding, which necessitates some form of their representation? What is in them that the story cannot tell? After we have named what we can name, and announced what we can announce, what remains that must be demonstrated?

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Dr. Corkin continues: *Scoville proceeded to remove the hippocampus on both sides along with the cortex surrounding it – areas that we know today are critical for the establishment of long term memory. We now know that immediate memory lasts about 20 seconds. H.M. could therefore remember information for about 20 seconds before it was gone forever*.

We know those things, she might have added, *because* Dr. Scoville removed those parts from H.M.'s brain. We know because H.M. survived the operation and lived out the next 55 years of his life. As Dr. Corkin says: *The operation resulted in the patient's losing his capacity to make new memories*. Do we make a new memory the way an assembly line makes a new car, the way Apple makes a new iPhone? Or is the phrase *capacity to make new memories* shorthand for a complex set of activities, and if so, does its analogy bring us closer to or farther from an understanding of ourselves?

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By *taking the side of philosophy*, I mean a side of understanding that refuses over-reliance on what Whitehead called fragmentation. Let's say a philosophical act of understanding brings together fragments, attempts what we now call an upgrade, aligning all fields, or modes of thought, to the level of the furthest advancement of any one among them. All must contend with the advances of the others. Another way to say it is, to borrow a phrase from Stanley Cavell, *philosophy has no knowledge of its own*. It has only methods for reconciling the knowledge amassed by other fields. By knowledge I mean aggregates of facts and feelings. I offer this as explanation for the inclusion of two versions of the Scoville procedure. Dr. Corkin's version describes the event in a layperson's language that retains the accuracy of the medical discourse, including an acquiescence to its rationalization. The Powers version gives the floor to a fictional mouthpiece who feels few qualms about voicing the degree of ethical outrage he feels. What they might be said to agree on is the fact that a second force had now claimed a grip on H.M.'s existence, and that this force would never have occurred by accident, like the first force of the bicycle collision, or like the resulting rhythms and pressures of epilepsy. Under no imaginable circumstances could Henry have lost possession of those particular parts of his brain other than the circumstances that he found himself in, as a test subject, of that doctor, at that moment, in that place. The results of this test seem to prove the fact of one neurological agreement on the difference between the present and the past; on when, if not how, the present becomes the past. The proof arrives by way of the observable toll of such a fact on a human subject. In order to contend with that toll, its facts and its feelings, philosophy must demonstrate a precise knowledge of what we now call the present. By demonstration I mean the construction of a sharable experience. In so saying, I will not be the first to point out parallels between this task and that of poets. The necessary first question for an understanding of memory and what its collapse reveals is: What is 20 seconds?

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One enters the installation titled *H.M.* by the artist Kerry Tribe through a bright room on the way to a darkened room. In the bright room one encounters machinery that is as simple as it is strange: two projectors at work, with one film scrolling between them, first through the projector on the left, and then across the space of the room and through the projector on the right. A calculation has apparently been made by the artist that determines the distance between the two projectors as that which will delay the second projection by precisely 20 seconds.

[image 1]

In the darkened room, one sees two screens with the two images projected through a window from the bright room, running in parallel. If one stays for 20 seconds or longer, one may realize that the right screen shows the time-delayed repetition of the image on left screen.

[image 2]

That is, what appeared on the left appears on the right 20 seconds later, with its sound muted but audible. One might have the sense that the image has been traveling for that 20 seconds, silently and invisibly, as the film travels, until it arrives on the right screen, slightly diminished. The image travels like time on a timeline diagram, from left to right, like reading.

[image 3]

As the left screen's image advances, one might try to retain the sense of that advancement in order to predict what will happen in a moment on the right screen. This may prove difficult.

[image 4]

A phenomenon transpires that one might consider interference, or dissonance, which is the aggregation of the two projections into a dialogue that does not seem accidental.

[image 5]

The left screen states its case as it goes. But when that statement returns, it seems to return in the form of both repetition of and comment on the statement now being made, 20 seconds later, by the left screen's projection. The present then is not the left screen alone, but both screens aligning, as well as the perception of the gap between them.

[image 6]

The present becomes a 20 second slice of time, bookended by the advancement of the lead apprehension, shall we call it, and the disappearing echo of that apprehension 20 second later, which is to say the present includes a recognizable margin of the near past, just as it vanishes into the less near past. That experience of vanishing, as well as the experience of the apprehension of what we might call

the present in demonstration, makes a guess at something of the experience of the adult life of H.M.

[image 7]

We know this because that life also constitutes the subject of the film being projected in this doubled format. The offering, in both the bright architectural engineering of a memory theater and that theater's darkened, immersive result, comes to us as an instance of analogy. The effects of the analogy include a disorienting and empathic recalibration of reason – a self-correction of consciousness – constrained by the twenty second measure of the present.

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I have borrowed the phrase *Effects of Analogy* from another Hartford resident, the poet Wallace Stevens, who used it as the title for a lecture he delivered at Yale in 1948. Here is an excerpt.

> When St. Matthew in his Gospel says that Jesus went about all the cities, teaching and preaching, and that
>
> *when he saw the multitudes, he was moved with compassion on them, because they … were scattered abroad, as sheep having no shepherd*
>
> the analogy […] is not emotional [.] On the contrary, it is as if Matthew had poised himself if only for an instant, had invoked his imagination and had made a choice of what it offered to his mind, a choice based on the degree of appositeness of the image. He could do this without being notably deliberate because the imagination does not require for its projections the same amount of time that reason requires.

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Creativity is always found under conditions, and described as conditioned. Maybe creativity, like philosophy, has no knowledge of its own. We can consider creativity as acts that combine or recombine instances of perception. The value of

the combinations lie in the actuality that conditions them. We can understand Kerry Tribe's installation as the result of a creativity that responds to the conditions of the actuality of H.M.'s adult life to the extent that those conditions are transferable. By transfer I mean migration, as from one medium to another, the same sort of upgrade I had in mind as the domain of philosophy, as reconciliatory of the broadest possible spectrum of thought and investigation – an elaborate act of analogy. Two rooms, two projectors, two screens, one film threading through a twenty second delay – like St. Matthew's choice, the structure of the work *does not require for its projections the same amount of time that reason requires*. The shape the work takes is apposite first, to use Stevens' term, and emotional second; it strives for accuracy, or what he calls, later in that same passage of his lecture, rightness. Analogy *is primarily a discipline of rightness*. Stevens then turns, in the passage's conclusion, and as a foundation for his thinking, to Alfred North Whitehead.

> […] the imagination [is] a power within [the poet] to have such insights into reality as will make it possible for him to be sufficient as a poet in the very center of consciousness. This results, or should result, in a central poetry. Dr. Whitehead concluded his *Modes of Thought* by saying:
>
> *… the purpose of philosophy is to rationalize mysticism … Philosophy is akin to poetry, and both of them seek to express that ultimate good sense which we term civilization.*

Is the center of consciousness, or the place of the poet, like the center of the brain, the place of the hippocampus? Elsewhere, Whitehead wrote of philosophy's role in the task of the creation of the future. Philosophy, akin to poetry, centers on a continuum, and *in each case there is reference to form beyond the direct meaning of words*. I see in this kinship an echo of the passage, by Stanley Cavell in his autobiographical work *Little Did I Know*, that produced the phrase I have been leaning on.

> … the task of description, of some so far undefined species, is more fundamental to philosophy, or constant in it, as I care about it most, than the tasks of explanation or argument. Since philosophy has no

> knowledge of its own, its power must lie in uncovering obviousness, in a sense becoming undeniable.

At the moment, the obviousness that I aim to uncover I might call *neighborliness*, or maybe, with a nod to a Cavellian notion derived from Thoreau's *Walden*, *nextness*; that is, to accept the subtle, insistent relation between the closest of neighbors in order to endow proximity with enduring significance.

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On the soundtrack of Kerry Tribe's *H.M.*, Dr. Corkin describes something of her childhood.

> I grew up in West Hartford, CT. One of my best friends lived across the street from me. Our houses had matching floor plans. We used to walk to school together, play hopscotch together. We even made a walkie-talkie with two tin cans connected by a string that spanned the street. My friend told me that her father was a neurosurgeon but I had no idea what that meant.
>
> Years later, I found myself reading about a brain operation my friend's father performed on a young man trying to cure his epilepsy. The operation resulted in the patient's losing his capacity to make new memories. My friend's father was William Beecher Scoville, and the patient was H.M.

The Book of Deuteronomy says that on the children are visited the iniquities of the parents. To the extent that some version of that remains true, and as long as children grow up across from their nearest neighbor, all philosophy will happen someplace. This is my proposal, an attempt at a rationalization of mysticism of a sort. The philosophy that finds its way to us today from Hartford, Connecticut issues from a horror story. The flick of God's finger starts a particular world spinning. Another way to say it might be this sentence from Stevens' *Effects of Analogy*: *For each man, then, certain subjects are congenital.*

> I met H.M. in 1962 [continues Dr. Corkin] when I was a graduate student. Beginning in 1966 H.M. used to travel up to MIT to the Clinical Research Center where my colleagues and I would test him. So I've known him since 1962 and he still doesn't remember who I am.

The film re-enacts the dialogue that leads Dr. Corkin to this conclusion.

SUE CORKIN
Have we met before you and I?

H.M.
Yes, I think we have.

SUE CORKIN
Where?

H.M.
Well, in high school.

SUE CORKIN
In high school!

H.M.
Yes.

SUE CORKIN
Have we ever met any place besides high school?

H.M.
Now I don't… no, I don't think so.

The neurologist Israel Rosenfield, writing in 1992 on the case, departed from previous interpretations of dialogues such as this one.

> … Brenda Milner and W. B. Scoville reported in 1957 that following the surgical removal of an area of the brain called the hippocampus, a patient, H. M., lost recent memories but retained long-term ones. […] this discovery led to a number of suggestions about how the hippocampus was crucial in the brain's converting short-term memories to long-term memories. By the 1970s, however, these ideas were abandoned and replaced with other models of long-term memory. It was argued, for example, that the meanings of words and other verbal symbols are stored separately from memories of personal experiences, and that verbal memories enter long-term storage directly, bypassing the short-term memory mechanisms. Oddly, nobody considered that these different kinds of memory might be interrelated and that the neurological "evidence" that they were independent was based on a presumption that when the patient named an object, the name meant to him what it meant to the examiner. The profound changes in the patient's subjective world were overlooked, especially the deepest clue of all: the patients had lost the sense of time. What did it mean for a patient to "recall" an event from his distant past when he had little or no idea about the present? Even the apparently objective naming of objects was unreliable. What, for example, does a "clock" mean to a patient who has no real sense of time? […] Not only do objects have temporal associations, but "what they are" to a person cannot be separated from a person's notion of time.

That is to say, when H.M. says "high school" how can he possibly mean what Dr. Corkin means when she says "high school"? Here is another paragraph from Dr. Rosenfield.

> What might be a more accurate assessment of the importance of the hippocampus in determining our notions of self? The hippocampus is closely linked anatomically to parts of the brain that regulate the body's internal mechanisms such as heartbeat, digestion, and respiration; one might then quite plausibly argue that injury to the hippocampus, in destroying the relation between external and internal

> stimuli, destroys the ability to create a "memory" that will have a meaningful relation to the self. But long-term memories just as much as short-term ones […] require a sense of self; they, too, are created in reference to the self whose memories they are. In what ways is the "self" with long-term memories different from (or similar to) the "self" of short-term memories? Perhaps more important, can we really describe these "selves" as independent? Surely they must depend on each other. The "self" linked to time past is an abstraction of the self-referential "I" that establishes immediate relations to its surroundings.

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Another way to frame Dr. Rosenfield's reframing of memory might be to ask why eliminating the capacity to make a new memory also eliminates the same brain's capacity to trigger a seizure. What is the relationship between epilepsy and memory? Why does seizing the moment, claiming it on a continuum with the moment just past, share a neurological neighborhood with the seizing up of the body, the dropping out of the mind? Dr. Scoville's cure for dropping out rendered that condition permanent.

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A boat ferries a selected load of precious cargo from the near shore of now across the river of time and deposits it on the far shore of then, and returns for another. The boat is called hippocampus, Latin for sea horse, since that fish is what the anatomist Julius Caesar Aranzi thought the shape of that little piece of the brain resembled when he named it in 1564, a name he adopted from an imaginary creature of Etruscan mythology, the *hippocamp*, with the foreparts of a horse and the hindquarters of a fish, the creatures that pulled the carriage of Poseidon, god of the sea and of horses, across water and land alike. But H.M. has no hippocampus now. Like the famous geese observed by Konrad Lorenz: *The death of one member of the pair leads to a search for the missing partner that can last for days*. So *the brain is searching for a solution to problems that cannot be solved*. Something has simply vanished from the brain's closed system, its ecology, and now this brain's life is defined by a search for the unfindable. How can the brain conceive of that loss? It no longer has seizures, but neither does it connect itself to time. In fact both shores seem equally distant now, equally obscure. The mind stands in the river, and the river is a film that keeps running. It runs on one shore

twenty seconds after it runs on the other shore. Past and present are vague ideas now. The imperative urge is to find the missing pieces. They must be here somewhere. The ferry has simply capsized. It might yet be raised and brought back into working order. Or say it this way. The quality and force of H.M.'s consciousness that Kerry Tribe's installation captures is not precisely the loss of time, but the loss of the capability to place the self in relation to time. To make a new memory means to reconfigure the self as legible to consciousness in relation to surroundings as those surroundings change. The loss of the ability to grasp the elusive near-at-hand as it passes by leaves the impression of a possibility of grasping, of repair, or of finding the missing piece, the missing skill. So the search continues, the search that looks like a loss of short-term memory, and all life becomes searching – for time, for pattern, for self, for twin sea horses. The film keeps running, echoing itself. Who are we in this analogy? In the dark room, we are the patient; in the bright room, the doctor. There is a horror story. We choose to step into it. We choose to step out of it.

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SUE CORKIN
You like to do crossword puzzles, don't you?

H.M.
Yes, I do.

SUE CORKIN
Why's that?

H.M.
Because sometimes I remember words. And sometimes I don't have to look them up. I remember them.

SUE CORKIN
You are terrific at remembering words.

H.M.
Well… I used to do them too, before I was sick and everything.

SUE CORKIN
And what kind of sickness was it?

H.M.
They called it “epilepsy” at the time.

SUE CORKIN
And how did it effect you?

H.M.
Well, I knew that if I had it, it would be cured sooner or later. And that’s just what I had to look forward to, in a way. I knew they would do something to me and I would be cured. And get my – well, parts of my memory back.

After repeated trials on the same crossword puzzle, H.M. would sometimes learn to fill in the right answers. For a time, he would retain factual post-1953 information. Dr. Corkin suggested that this learning involved weak signals from brain tissue around the missing hippocampus that survived the surgery. Can other parts of the brain begin to learn the skills of the hippocampus? Most notable perhaps are H.M.’s repeated attempts, his crossword practice. *Appetition*, wrote Whitehead, *is immediate matter of fact including in itself a principle of unrest, involving realization of what is not and may be*. The search becomes a search for a substitute. But, as Israel Rosenfiled writes, *Consciousness is dynamic, and memory is part of the dynamics of consciousness*. And *…not memories in the sense of stored images, but memory as an ability to understand and sustain complex relations*. With each retrieval of a fact, there is an updating and reshaping of that fact, and a corresponding process of continual reconsolidation of the self. To make a new memory is to make a new self. H.M. remained at the brink of this process, and the post-1953 crossword answers faded. What is lost with the loss of one’s relation to time is process itself, the becoming of experience.

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Today the mind is not part of the weather.

How tenuous is the human grip on each fragile moment. Wallace Steven’s poem *A Clear Day and No Memories* was collected posthumously. It evokes the literal meaning of *posthumous*: after the ground, after leaving the earth.

Today the air is clear of everything.
It has no knowledge except of nothingness
And it flows over us without meanings,
As if none of us had ever been here before

> And are not now: in this shallow spectacle,
> This invisible activity, this sense.

I have often thought about the sense of the things King Lear says at the end, to his daughter Cordelia.

> Methinks I should know you

And

> all the skill I have
> remembers not these garments

And even

> You are a spirit, I know: when did you die?

She will die soon, and then, oddly, as he holds her in his arms, he will say

> And my poor fool is hang'd!

I have not been satisfied yet by any explanation of Lear's calling his daughter his Fool. I am partial to the theory that in the original production, the same actor played both parts. It is true that Cordelia and the Fool never occupy the stage simultaneously, and do not share a single scene. Did Shakespeare fold that doubling into the writing, into Lear's delirium, and his search for sense in the fragments left him, his search for himself? As Dr. Rosenfield writes: *To make a distinction between long- and short-term memory or between abstract and immediate knowledge may be useful clinically, but* […] *we must try to understand that our relation to the world is not sometimes abstract and sometimes immediate but, rather, <u>always both</u>*. With that in mind, I wonder if we might think of the Fool as a repetition of Cordelia at something like a twenty-second delay.

Kerry Tribe's *H.M.* confronts us with the remarkable texts of H.M.'s sleep studies. Tribe wrote me:

> Everything that is said in my film is historically accurate (i.e. H.M. really said all those things). […] I did work very closely with Suzanne Corkin (that *is* her in the voiceover - not an actor) and she generously shared transcripts of these "inconclusive" sleep studies you asked about. They are "inconclusive" because it's not known if he's really reporting dreams, as he

> claims, or memories from before his procedure. I chose to use those particular reports (he dreams he is a doctor, he dreams about an underwater cave, he dreams he's "right next to himself") because they seemed allegorically significant in relation to my project.

How strange it seems to consider these testimonies less conclusive than other gathered fragments, because of this uncertainty. To Tribe's and Corkin's credit, the texts appear prominently in the film. Here is one such dialogue, in which H.M. denies he is either dreaming or remembering. He says he is simply thinking.

> – 20 –
>
> H.M.
> What's the matter?
>
> ROBERT
> Were you dreaming.
>
> H.M.
> No.
> Where is this?
>
> ROBERT
> You're at MIT.
>
> H.M.
> Huh?
>
> ROBERT
> OK. You didn't dream.
>
> H.M.
> No. Thinking.
>
> ROBERT
> What were you thinking then?
>
> H.M.
> The thought I had… well, was I was causing interference? …

ROBERT

Where?

H.M.

Well, in the machine. It would be a combination of one thought being twice. Of course, it was the same thought right next to itself, you might say.

ROBERT

What is it you're talking about now?
Are you talking about the electrodes?

H.M.

Just putting it on, and a double put-on one time. One side was put on but the other wasn't. That's what I mean by the double.

ROBERT

OK. But you weren't dreaming.

H.M.

No.

However irrational the facts, however elusive the feelings, however inchoate the expression, the thought and the thinking we recognize as beginning from the place of the poet or philosopher. That is to say that, if only for a moment, H.M. appears to grasp a sense of self in relation to time, reconfigured through the effects of analogy.

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Notes and Sources

– 2 –

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– 3 –

All Suzanne Corkin quotes and H.M. dialogues are from *H.M.* unpublished screenplay by Kerry Tribe, 2010.

– 5 –

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– 9 –

My college philosophy professor, Dr. Spencer, lingered on the question of how to diagram time's movement, or direction, in his visual aids for Whitehead's speculative process philosophy. Some languages are read from right to left, others from top to bottom, but a line of the major cultural language of the United States, English, is read from left to right. This therefore determined the direction of time on a chalkboard in our classroom in the year 1981, but not without due consideration, which seems relevant to the movement of the film in Kerry Tribe's *H.M.*

– 10 –

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Email from Kerry Tribe, November 20, 2010.

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