Beyond chronology and profession

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Hidden Histories University College London 17 September 2011

For Michael Sean Mahoney (1939-2008) and Louis Milic (1922-2003)

1. The project

There are many provocations to take an interest in history or in the history of something in particular, such as the digital humanities. One of them is accumulation of memories, which tug at the sleeve of us older ones and whisper stories to us, and infuse feelings both less and more than stories, about how things once were. Another is an impasse or predicament that defies solution in the present and so prompts us to seek explanation in the past. There, if we keep our eyes open, we run into anomalies and so are forced to rethink what happened. In both cases we are on shaky and peripheral ground: memory is unreliable, anomalies uncertain. My argument here is that for the digital humanities we need them both if we are to get beyond the chronological record to the genuine history that we need. What a genuine history is, and why we need it at all, are good questions, indeed *the* questions, but I must put them aside for the moment.

I divide the history of the digital humanities into two periods, before and after the introduction of the Web in 1991. I focus on the first or incunabular period because it seems likely that like many other social institutions our discipline was imprinted by the historically specific context of its origins. Writings of that time also seem likely to yield the most helpful results because computing was new then, less was assumed, practitioners were looking around for ideas and the need to justify and explain its relevance to the humanities was commonly felt.

In the time I have I'll first ponder memory, drawing on a few from my own generation. Next I will nominate a current predicament that, I think, is driving us to seek a history for ourselves. Then I will draw out a series of related articles from the professional literature that answer to this predicament, consider a few and highlight anomalies in them. Finally I will indicate how I think the beginnings of a history for

¹ This is known in the social sciences as the "organizational imprinting hypothesis", for which see Stinchcombe 1965; Lounsbury and Ventresca 2002; and cf. Tillyard 1958: 11-12.

the digital humanities might start from the questions these anomalies raise. Getting beyond the abundance of facts we have to these questions is the essential move.

2. Memory

In his memoir, *The Statue Within*, the French biologist François Jacob, puzzling over the memories of a lifetime, describes soliciting his past from among the chaotic flashes of imagined and experienced realities, picking his way "among the memories that court me and those that run away" (1989: 14). Like his ours is a quest for coherence, and like his ours extends over a period within living memory. Our project isn't biographical though it spans the period of a single lifetime, but it shares with Jacob's the passion to find a shape in the transience of mental life. Unlike his ours has a written record, but our problems are not all that different: neither a child nor a new discipline, in process of constructing its identity, is prepared to do anything other than absorb and later try to handle in some useful way the most formative influences.

Allow me to give you some idea of what's involved. In his evocatively titled article, "Memories are made of this", neurobiologist Steven Rose reviews more than a century of scientific research into memory, concluding that little more has come of it than to deepen our puzzlement (2009: 54). But before we get very far into his argument, that title has already begun to work on us: the memories it evokes play beguilingly against the science. Those of the right age are unlikely to need reminding that "Memories are made of this" was a popular song of mid 1950s America [SLIDE 2] – Dean Martin's biggest hit (1955), then also recorded by the Everly Brothers (1960), Paul Anka (1963), Little Richard (1964) and last by Johnny Cash (1996). In Germany it was the most successful song of 1956, and in Hungary after the Revolution of that year it became the unofficial anthem for refugees around the world. Long after the words and particular circumstances of life in which it was heard are forgotten, it remains powerfully evocative. But of what? In the original version of 1955,

Take one fresh and tender kiss Add one stolen night of bliss One girl, one boy Some grief, some joy Memories are made of this....

Listening to this you may well sympathize with those who argue that no history can be written of any period within living memory. Too messy, too overrun with detail, too befogged with emotion, too entangled with life. That this is a widely held view is demonstrated by the paucity of studies in the history of recent science, for example, or by the defence that oral historians routinely mount (cf Thompson 2000). The first such historian was Thucydides, almost 2500 years ago, in the foundational text of the European historical tradition, the *History of the Peloponnesian War*. There, facing the unreliability of memory, he argued that by subjecting his own and others' accounts of what they saw to "the most careful and particular enquiry", he had been able to

produce a guide of permanent value to anyone interested in what "may be expected to happen hereafter in the order of human things" (I.22, trans Jowett). Note in passing his aim: like ours, not just accurately to depict the past but in doing so to figure out the way things are likely to go – as we might say, their trajectory. I will get back to that.

But Thucydides' outward focus on military and political events necessarily downplays the more private kind of memory we must take an interest in. As a result the two historiographical problems of scope and interrelation come to us in particularly tricky forms. Once we open our attention out beyond the narrow professional focus and into the periphery from which multiple influences came and did their work, we are faced with determining how far we must go in identifying and accounting for what could have been relevant to individuals at the time, how we determine this relevance and finally how we say those relevant things are related.

Chronology does not explain why choices were made (which is the big historical question), but it is hardly irrelevant. For example, in 1955 Dean Martin (born 1917) was middle-aged, as were the songwriters of "Memories are made of this". They and a significant part of their audience would have been teenagers just before or in the early years of World War II, when to his American audience, safely isolated by oceans, war was a distant rumble. In 1954, the year before Americans first heard this song, many if not most of them, almost decade into the Cold War, would have been listening to the Army-McCarthy hearings on the radio or watching them on television and so been assaulted by a particularly virulent form of the paranoia of that time. [SLIDE 3] As an historical hypothesis, think of this assault – here is my point – as the inverse and quite possibly compelling provocation of "Memories are made of this". Ask: is it possible that this hugely popular song provided sheltering reverie against the nightmare, fulsome sentimentality against the intense fear? As a nine year-old boy I can recall standing in the kitchen, barely able to see the radio over the counter-top, listening to Senator Joseph McCarthy and his henchmen, somehow knowing, with a physical chill, that it was the season of the witch-hunter. [SLIDE 4] It was also the time of immanent nuclear warfare, whose fearfulness was instilled in us, for example, by the routine exercise of "duck-and-cover" that I remember doing in elementary school regularly. On one occasion we were made to watch what we were told was a portion of a top-secret film released to the public to show what an atomic blast actually would do. This film was taken from Operation Upshot-Knothole, in which replica houses, stocked with life-size dummies, canned food and all the furniture of ordinary middle-class life, were subjected to an atomic blast, as shown here. How did we reckon "duck and cover" would help? Did we as children simply accept the lies we were being told? And, yes, at the same time as I recall "duck and cover", I am teased by the recollection of "Memories are made of this" at a dance with a Methodist preacher's daughter, five or six years later, not long before I grew up to the war in Vietnam and, as Donovan evoked in one of the early psychedelic songs, "The Season of the Witch", turned radically inward against - not to put too fine a point on it – rampant evil everywhere I looked.

But that's an end of personal recollections. I have subjected you to Dean Martin's cloying murk and some of the scarier ghosts it summons to suggest that our subject was enacted in a world very much larger and more complex and more personally connected than the articles in *Computers and the Humanities, Literary and Linguistic Computing* and the other professional venues might appear to suggest. Of course there is the question of how all these things are connected, but that is exactly the historiographical problem I am putting to you.

3. Provocation

Perhaps the greatest challenge we face is to remember that what we study is greater than any construct we may devise to study it. This is why when you look from the humanities to computing, rather than the other way around, you find yourself asking the question Roberto Busa asked in 1976: "why a computer [can] do so little" for the humanities, "why the use of the computer is... detained at some primitive and laborious stage... while its services in other fields are... monumental" (1976: 1). Yes, he wrote those words 35 years ago, and much has happened since then, but in essential respects his words remain true. When knowledge is the goal of work, classicist Don Fowler once wrote, the point is to make problems worse, not to solve them (1999: 442). And that's what keeps happening in the humanities as long as those disciplines remain more than knowledge engineering.

Hence my optimistic dissatisfaction with progress to date. In particular, to illustrate how I think the writing of our history might proceed, I want to focus my dissatisfaction on a predicament that I think we are in. I am not asking you to agree with me about this predicament, rather I am asking you just for a time to assume its truth.

The truth I want you to assume is that in respect of literary computing (and I would say any centrally interpretative kind of scholarship) we remain stuck at an impasse first anticipated in 1962 and then publically sighted in 1966, as I will explain later. In its present form this impasse is manifested by our dominant activity de facto, which I characterise as building and promoting information vending machines, or "knowledge jukeboxes", as I call them. [SLIDE 5] These are clever to be sure; they are of immense value to scholarship, as well-made reference works always are. I am dissatisfied, however, because I see us working almost exclusively for scholarship that happens elsewhere by other means. This suits some disciplines very well, in particular those (such as epigraphy) whose primary function is to witness cultural artefacts. Literary studies is a prime example of the other kind: well served in a number of peripheral ways but not helped in what it centrally does. We seem largely to ignore the challenge dynamically to model critical literary interpretation, in real time, at something which approaches the speed of reading. I think that what we want (in the sense both of lack and, if we can wake up, of desire) is to realise in software something like the analogies that operations researcher Michael Thompson proposed in the journal Leonardo in 1974: the computer as musical instrument or conversational partner. Jerome McGann and Johanna Drucker tried their hands at

this some time back, with the *IVANHOE GAME*, but in the end stopped in the forecourts of interpretation, uncertain of how to go any further.

Why cannot we get further? Why haven't we? There are of course technical challenges to be overcome, but I want to focus on the problem as it comes from literary studies in concert with the cognitive sciences and beyond. McGann has proposed a fascinating amalgam of theoretical ideas (2004), but I don't think we know what to do with them because we don't know how they fit, and we don't know that because we don't know what they have to fit to. Hence the crying need for a history.

Perhaps, you say, computing is simply not for interpretation but for serving it. I am suspicious of this response for a number of reasons: it provides an easy out; it hugs the imitative impulse; it locks us in to the old, crippling master/servant dialectic; and it seems bolted to the computing we know in the way concordance-production for print was bound to the mainframe. But we are getting somewhere: all these all point to historical questions.

4. Symptoms

One historical pattern that is no hallucination of mine is the long series of laments, first about fundamental misconceptions, then about the failure to enter the scholarly mainstream. This pattern confirms my sense and McGann's that literary computing – other than statistical research in computational stylometry and in literary history – is stuck, endlessly running up against a wall, with no idea of how to get around that wall. Let me touch briefly on a very few of the writings.

The first is Margaret Masterman's "The Intellect's New Eye", published in the 1962 *Times Literary Supplement* series "Freeing the Mind", on progress toward handling the proliferation and fragmentation of knowledge by technical means. Masterman juxtaposes two views of the computer: on the one hand, the majority view that the computer is "a purely menial tool" which can "assist a human scholar... by performing for him a series of irksome repetitive tasks"; on the other hand, "its potential use not as a tool but as a telescope... of the mind". The former, she notes, provokes "no new theoretic vision, intuitive or mathematical"; the latter, if realised, would enlarge "the whole range of what its possessors could see and do" (1962: 38f).

Four years later, literary critic Louis Milic made much the same contrast as Masterman between exhilarating possibilities and disappointing actualities. Reviewing progress in the field, he argued that practitioners had not lived up to these possibilities but were stricken by "a real shortage of imagination". Although they had successfully begun to produce "all the good things we have been lacking for so long" – i.e., resources for scholarship – these demonstrated, he said, both limited and limiting objectives (1966: 4). "We are still not thinking of the computer as anything but a myriad of clerks or assistants in one convenient console", Milic wrote. He thought that "fear of mechanization" had blocked any attempt to understand the rich possibilities of a device neither like the human brain nor like a

mechanical clerk but with a new kind of intelligence. Echoing Masterman and anticipating Busa a decade later (1976), Milic argued that success in using the machine to alleviate "the brute labour of scholarship" had begun to shift scholars' interests toward that kind of work. Their thinking had already begun to be affected, he said, by the need to oversimplify problems and to render them as explicit, modular and pragmatic statements. He was in other words calling for critical attention to the epistemic practices of our fledgling discipline as well as for visionary explorations.

From then until the present day many such assessments have been published. No one said it more succinctly than Rosanne Potter in 1989 and Thomas Corns in 1991: literary computing had "not been rejected, but rather neglected" (Potter 1989: xvi) and so remained out of sight, in "the ghetto of specialist periodicals" (Corns 1991: 127). When Potter reviewed the subject in 1991 for *Computers and the Humanities* she identified 9 articles reflecting on the state of the art, all of which, she said, pointed to theoretical poverty. For example Susan Wittig's "The Computer and the Concept of Text" cited Masterman's visionary "telescope of the mind" only to find that the dominant and highly positivistic "idea of text" taken from ageing New Criticism had confined the field, much as Milic had said, to limited, incremental gains and so to obscurity (Wittig 1978).

Nevertheless blame tended to fall on poor hardware and lack of infrastructure. In fact "the... basic requirements... for eventually putting literary computing on the map of mainstream scholarship [had] been met since the early 1960s and 1970s", Thomas Rommel has noted (2004). So what was holding the field back? In his 1992 British Library lecture Anthony Kenny suggested an answer by asking why "computers came just at the wrong time... when scholars' interests were moving from textual studies to critical theory" (1992: 9-10). Was the move in literary studies to the theoretical high ground a reaction to the juggernaut of quantification fuelled by the spectacular early successes of computing, as Kenny speculates? Remember, this juggernaut arose in the Anglophone world with the triumphalism of victory in World War II, in which superior technology played a spectacular role [SLIDE 6] and the utopian if authoritarian promise of computing seemed limitless. But then, as I have variously suggested, with the Cold War the computer (a mainframe, whose humane potential was difficult to see) began to take on sinister baggage through the uses to which it was put, for example in workplace automation, nuclear defense systems and in the "electronic battlefield" of Vietnam.² [SLIDE 7]

We must wonder, then, what were the motivations of those who despite everything, including the scorn of their colleagues, put their reputations on the line by computing literature? And why did they ignore those hints of damaging theoretical poverty? What were they about?

Stephen Parrish, an English professor noted for his concordances, provides one

 $^{^2}$ On workplace automation, see Zuboff 1984; on computing in the Cold War, Edwards 1996; on the Cold War more generally, Whitfield 1996/1991.

example (and raises the historical question of how representative he was). In 1964, two years after Thomas Kuhn's The Structure of Scientific Revolutions had begun forever to push aside the view of science Parrish promoted, he used his summary of the first conference on Literary Data Processing to endorse C. P. Snow's indictment of humanistic culture for isolating itself from the sciences, vigorous and full of promise (Parrish thought) for achieving "criteria of objective judgement" and reduction or suppression of "subjective, purely emotional responses" in the study of literature (1964: 4). "[I]n a revolution of this sort", Parrish declared, "there is no holding back, and no turning back. The movement of events becomes compelling – inevitable" (5) – if, that is, you caricature then dismiss the "good gray dons and a few visitors", as he said of Snow's audience, with their "cool, if not hostile" turning of backs (3). Parrish's reaction if common – I certainly witnessed it repeatedly – suggests that mainstream scholars were as much deserted as deserting. But this is far more complex than a divorce of empirics from theoreticians, as is so often characterized. Also beginning in 1964, the rise of cultural studies from Richard Hoggart's founding of the Birmingham Centre is just one of many complicating factors. The tectonic plates, we might say, were grinding against each other and moving away in diverse directions. The historical question adapts Erving Goffman's: "what is it that was going on?" (1986/1974: 8).

5. Clues

Our way into this question, I've suggested and begun to explore, is to go after the curiosities in the professional record. For example, in the small selection of writings I have mentioned there are at least five of these: the very common relegation of computing to menial work or drudgery, with the objective of saving human labour; the equally common fear of mechanisation; the claim to a new kind of intelligence, which is to say, artificial intelligence; the troubled relation of work in the digital humanities to literary theory; and last, the startling lack of adventurousness among specialists during a time of intensely adventurous work elsewhere.

I begin with the last. In his 1966 critique Milic laid great emphasis on exploring "the mystery of the creative act". He noted that attempts such as the automatic poetry writing championed by Masterman had met with considerable odium. Four years later, for example, poetry-writing by computer figured prominently in F. R. Levis' vigorous condemnation of corruption and decline in British intellectual culture (1970). [SLIDE 8] As one anonymous reviewer of computer-generated concordances also said that year, "the more sensational attempts to use the computer" for interpretative purposes were wrongheaded (1970). But was the sober practicality of practitioners doing what was possible and of known value characteristic of work in computing generally?

As you may suspect, the answer is no, not at all. Let me illustrate with two

mainstream historical contexts: cybernetics and the creative arts.3

Cybernetics (from the Greek word for "steersman" of a boat) was a hugely influential scientific research programme and intellectual movement that arose out of wartime efforts to integrate humans and machines, chiefly anti-aircraft guns [SLIDE 9]; it eventually developed into cognitive science. It drew upon earlier analogue devices but also closely overlapped the development of digital computing. Together these activities give us a vivid picture of the intellectual energy and at times ebullient excitement of the early explorers, such as John von Neumann. It seemed to many then as if the cyberneticians, who had played a crucial role in the victory over Fascism, had stumbled upon a universal principle, as the father of cybernetics, Norbert Wiener, proclaimed. It seemed possible to at least some that the terrible war had produced something that would play a key role in repairing the world. We know that on both sides of the Atlantic - the conferences on cybernetics in America sponsored by the Josiah Macy, Jr. Foundation from 1946-1953 (in which Wiener and von Neumann participated) and the British meetings of the Ratio Club from 1949-1958 - that researchers from across the physical, medical and social sciences were involved. (Literary critic I. A. Richards was the only humanist to attend any of the American events. Why did he? Why didn't others?) The Macy Conferences were chaired by the philosophical neurophysiologist Warren McCulloch, [SLIDE 10] who later taught Marvin Minsky among others. In 1943 he and the mathematical logician Walter Pitts had published their model of the brain inspired by Alan Turing's 1936 paper. We know from McCulloch and from the neurophysiological vocabulary in The First Draft of a Report on the EDVAC (1945) that von Neumann based his design of digital computing architecture on the McCulloch-Pitts model. There can be no doubt that to them human and machine were resonant, progressively interrelated entities: models of reasoning and models of computing in convergent cycles of development.

Cybernetics in turn inspired an exuberant flowering of experimental art in part because, as the British cybernetic artist Roy Ascott said in 1968, it represented "a development in science which [held] out the promise of taking art seriously" (1968: 257) and so giving it new scope for action. The action it inspired was interactive and participatory, [SLIDE 11] constituting in the words of the 21st-century digital artist Jeffrey Shaw "a new relationship between the producer and the consumer of artefacts, one where the builder of the interactive system and its users participate in a situation of cocreative formulation, discovery and experience" (Shaw, Kenderdine and Coover 2011: 223). In Paris in the 1950s artist Nicholas Schöffer, inspired by Norbert Wiener and British cyberneticist Ross Ashby, "formulated his idea of a kinetic art that was not only active and reactive, like the work of his contemporaries, but also autonomous and proactive" (Brown 2008: 265). In 1968 – the year Stanley Kubrick released 2001: A Space Odyssey – artist and critic Jasia Reichardt held the Cybernetic Serendipity exhibition in London [SLIDE 12] to explore the artistic potential of bringing together "complex electronic machines like computers and the

³ There are several other contexts potentially of interest, and each of those I have just discussed opens up into further detail. See for example Hayles XXXX). Less over-determined, much closer to the history we need, is Kenner (XXXX).

human nervous system" (Reichardt 1968: 1). It was "a defining moment in the history of computational arts" (Brown 2008: 269), attracted 40,000 visitors and was written up in the *Times of London* (2 and 9 August), the *New York Times* (18 August), *Time Magazine* (4 October) and later went on tour in the U.S. One of the exhibitors was Gordon Pask, who inspired by Wiener had joined forces with physicist Robin McKinnon Wood (one of Margaret Masterman's collaborators at Cambridge) to build "maverick machines", as he called them – some of them so advanced in their conception as to remain ahead of our time (Bird and Di Paolo 2008). There are many more names and relations in this largely forgotten history of artists "burning with the white heat of technology", as British Prime Minister Harold Wilson famously said. But my point is the whirlwind of excitement and creative activity which broke out not only in London but also in New York, Zagreb, Berlin and elsewhere during this period.

The puzzle for us is that humanists involved with computing seem not to have noticed. Again, in 1966 Milic wrote,

Unless we try to understand [the computer] in the way in which as scholars we try to comprehend any of our tools, we shall not only be incapable of exploiting its resources properly, but we shall be in danger of becoming its victims. Control comes from understanding, from a fusion of the user and the instrument, like the arm and the saber, the rider and his mount.

– or, Michael Thompson suggested, the musician and his instrument. This is one of the things that the exhibitors at *Cybernetic Serendipity* were exploring.

Like Milic in 1966, Roberto Busa in 1976 and again in 1980 argued against computing as labour-saving. Yet repeatedly during the incunabular period the computer was linked with alleviation of "drudgery". It was what to many the computer was for. The burden of calculation prior to machinery was a very real problem: it required mathematical abilities but made their exercise unworthy of those caught up in it (Pratt 1987: 20-44; Goldstine 1972: 8ff). Drudgery in the humanities is much rarer, but as Milic noted early computing humanists gravitated to work whose drudgery it could save, and so put themselves "in danger of becoming [the machine's] victims" or mere attendants, as he said (1966: 3-4). What he does not say (he *was* an American professor) is that by conceiving the machine as a drudge, those employed to attend it or whose lives were defined by it became *de facto* servants.

The social history of servitude thus comes into play as well as the history, just beginning to be written, of the machine as servant. Master-servant relations in turn lead us into the history of industrialised labour from the time of Taylorian principles and Fordist practices [SLIDE 13] to Shoshana Zuboff's "age of the smart machine" (1988). There are several worlds here to explore, including the curious history of leisure. But in any case relegation of human or machine to the role of server ensures separation, reinforces inequality and attenuates the potentialities of their collaboration. In an anonymous but traceable review in *The Times Literary Supplement* for 21 May 1971, Sir Charles Geoffrey Vickers warned that by yielding to the

seductive temptation of (morally neutral) "slave labour" – his term – exponents of computing would bury its intellectual potential (Vickers 1971). Is this what we in the humanities have been doing with the machine?

My own experience in talking with academics and programmers during those years makes me question the motivations of those who subordinated one side of the relationship to the other. Character flaws aside, the rampant practice of subordinating the techie suggests fear to me – as Milic said and I think meant, the fear of mechanization and (he did not quite say) the fear of the new kind of intelligence he wanted to explore. That sort of reaction to artificial intelligence is of course well known and exceedingly unhelpful though abundantly provoked. But what concerns me is something much larger and older of which computing forms a recent chapter: the threat to human self-identity from techno-scientific progress. In his review of that first conference on Literary Data Processing, historian Franklin Pegues noted "the often mentioned hostility of the humanist toward the computer" but argued with the optimists that "The purpose of the machine is not to dehumanize the humanities but to free the humanist for the important work of literary criticism by providing him with large and accurate masses of data that may be used by him in the work which only he can accomplish" (1965: 107, my emph.). I think what we are getting here is a quiet but still remarkable struggle to redefine what the scholar is for in the age of computing: no longer Wissenschaft-scholarship as Northrop Frye called it, in which hard graft was proof of value and a badge of honour, but critical interpretation. Might we be witnessing another, perhaps more serious force that pushed Pegues' colleagues away from computing and onto the theoretical high-ground? And what I suspect this hides is the beginning of computing's role in the long process Sigmund Freud famously identified in his catalogue of the "great outrages against [humankind's] self-love", listing Copernicus in the 16th Century, Darwin in the 19th and then himself, for "the third and most irritating insult... flung at the human mania of greatness" – the psychoanalytic discovery that we are not masters of our own house (1920: 246-7). But, as the molecular biologist Jacques Monod explains (1972/1970: 47-8), the Galilean moral imperative to defeat human self-deception – resulting in what Francis Bacon called "the sciences as one would" 4 – is by its very nature set against humankind's anthropocentric illusion. Hence Freud's list can only be the beginning of an indefinitely extensible catalogue that has in recent years seemed to grow by the hour and which computing has powered and continues to power.

Hence the clues of a profound disquiet about digital machinery we find in both highand low-brow journalism, advertising and other forms of popular literature, including cartoons and comics, especially but not exclusively during the incunabular period. Indeed, the popular media to which scholars were (as we are) subjected communicated a very mixed message, mixing excitement with alarm.

6. History

⁴ "id quod generat ad quod vult scientias", (*Novum Organum*, I.xlix), i.e. fanciful, capricious or arbitrary knowledge.

In one of the crucial passages of modern historiography, Leopold von Ranke, reacting to the moralising tendencies of an earlier time, declared that the aim should be to write *was eigentlich gewesen ist*, "what actually happened" (1874: vii). In Nikos Kazanzakis' novel *The Last Temptation of Christ* Jesus spots the gospel Matthew is writing, picks it up and becomes infuriated at the fiction he reads, only to find out that an angel has been dictating it. Historians don't have angels to help them as far as I know, but getting to what actually happened requires more than facts. History, Northrop Frye says in his Polemical Introduction to the *Anatomy of Criticism* (1957),

began as chronicle; but the difference between the old chronicler and the modern historian is that to the chronicler the events he recorded were also the structure of his history, whereas the historian sees these events as historical phenomena, to be connected within a conceptual framework not only broader but different in shape from them.

All disciplines, Frye continues, begin in the way history did, by taking "what Bacon calls (though in another context) an inductive leap, occupying a new vantage ground from which it can see its former data as new things to be explained. (1957: 15)

I've argued here that we get to that new vantage ground by looking for anomalies or puzzles in the professional record, curious remarks and odd emphases, by asking what others were doing at the time, where ideas came from, what motivated the choices that were made. That is, by questioning everything, looking everywhere we can. As a result we wander far afield. But as we go wide we begin to go up, each step offering an inductive leap. Memories, for such a recent history, play an essential part, since even if unreliable a guide to what actually happened, they prompt further questioning. Thinking back to the 1950s with the help of "Memories are made of this", it's hard not to wonder if in that post-war Cold War time safety rather than adventurousness was the order of the day.

I end with two images that suggest two ways of conceiving our project, both German as it happens. [SLIDE 14] The first is Caspar David Friedrich's *Wanderer above the Sea of Fog*, suggesting the view of what's actually there. (Those of us who have both climbed and spent years in research know how emotionally apt this Romantic painting is.) But I prefer a very different image for history-writing, [SLIDE 15] Max Klinger's Penelope (1895), depicting the long suffering wife of Odysseus sitting at her great loom, putting off importunate suitors by weaving Laertes' shroud during the day, promising to marry one of them when it is complete, then unweaving it by night. The truth in this for our historian is, I think, in the reweaving of threads previously woven by others – same threads but (here I change the story) different scene. What I'd like you to keep in mind is the possibility that one day coherent depictions might arise from all the thread-gathering we are beginning to do.

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