The German biologist and psychologist, Richard Semon is comparatively little known today; the only full length work in English on his ideas was written by the Harvard professor Daniel Schacter – author of *The Seven Sins of Memory* – and titled *Forgotten Ideas, Neglected Pioneers*, which is perhaps a fair estimation of his current intellectual stock. Nevertheless, Semon's work on the nature of memory, written in the first decade of the 20th Century, synthesizes many of the competing ideas of turn of the century thought. Educated at Jena, and under the influence of the most prominent proponent of Darwin's ideas in the German-speaking world, Ernst Haeckel (Schacter, 2001, 22), and drawing equally on Hegel's dialectical vision of history, Semon saw the natural sciences and history as necessarily intertwined. His best-known work, both in his lifetime and posthumously, is *The Mneme*, first published in 1904 This work introduced his view of memory as a trace or mark:

When an organism has been temporarily stimulated and has passed, after the cessation of the stimulus, into the condition of 'secondary indifference,' it can be shown that such an organism - be it plant, protist, or animal - has been permanently affected. I call this the <engraphic> action of a stimulus, because a permanent record has been written or engraved on the irritable substance. I use the word <engram> to denote this permanent change wrought by a stimulus; the sum of such engrams in an organism may be called its 'engram store,' among which we must distinguish inherited from acquired engrams. The phenomena resulting from the existence of one of more engrams in an organism I describe as mnemic phenomena. The totality of the mnemic potentialities of an organism is its 'Mneme'. (Semon, 1921, 24)

This view of memory as a physical mark left on an organism is far broader than our usually anthropocentric understanding, and could even suggest that any scratch or trace should be understood as a memorializing record.

The Mneme, in Semon's view, is the sum of potential memories, the encrusted surface of experience: it is a remarkably physical and material view of how memory functions. Viewed today, the scientific basis of his work appears inevitably naive, superseded as it has by contemporary neuroscience, and there is little evidence to suggest that it is any more than an historical curiosity - a few scant references to the Mneme's confusion with Richard Dawkins' Meme is about as far as it goes. Nevertheless, I want to argue, by way of a very different route, that there is the potential to find in his analysis a valuable contribution to a more holistic understanding of memory, through this idea of the engram.

One contemporary of Semon's who found use for his work was the art historian Aby Warburg. However, rather than developing Semon's physiological view of memory, Warburg sought to apply his ideas to the field of cultural memory. Born in 1866, the eldest son a prominent Hamburg banking family, he – according family legend – gave up his birthright on the proviso that his

younger brother would furnish him with any books he required. This agreement proved costly: Warburg is perhaps best known today as the founder of the institute which bears his name, an institute whose scholarly reputation rests on his personal library, which amounted to some 60 000 volumes by the time of his death in 1929. Forced to leave its native Hamburg due to the rising threat of Nazism, it has been under the aegis of the University of London since 1933, becoming the intellectual home of scholars from Ernst Gombrich to Frances Yates, and has had as its intellectual focus the study of the Renaissance and its legacy. This was Warburg's central area of concern too, specifically how Renaissance art sought to engage with the legacy of the art of antiquity. As Warburg most succinctly put it:

To what extent can the stylistic shift in the presentation of human beings in Italian art be regarded as part of an international process of dialectical engagement with the surviving imagery of Eastern Mediterranean pagan culture?

What concerned Warburg most acutely was what he described as the *Nachleben*, or Afterlife, of antiquity. Like Semon, Warburg's early education at the University of Bonn was marked by the intellectual climate of the late nineteenth century; a prevailing Hegelianism augmented with Darwinian influences. Indeed, Darwin would prove to be a continuing source of inspiration; not only his work evolution, but also his study from 1872 *On The Expression of Emotions in Animals and Men.* 

For the student of art history, the study of the Renaissance was dominated at the time by the work of Jacob Burckhardt, whose *The Civilization of the Renaissance in Italy* had been published in 1860, and whose later work was influenced by his colleague at the University of Basel, Friedrich Nitzsche, whose first book, *The Birth of Tragedy* viewed classical art as torn between Apollonian form and Dionysiac excess. For Burckhardt too, the classical world was one that was sought to reconcile these tensions. However, there still persisted the influence of the Eighteenth century archeologist Johann Winckelmann, whose view of classical art as embodying, in his famous formulation, 'noble simplicity and calm grandeur,' still exerted an enormous influence over the understanding of classical art over a century after the publication of his great work on the art of antiquity. As Philippe-Alain Michaud has argued,

In 1893, in his first published text, 'Sandro Botticelli's *Birth of Venus* and *Spring*: an Examination of Concepts of Antiquity in the Italian Early Renaissance,' Warburg tackled the age-old question question of the Renaissance artists' return to and interpretation of Antiquity, giving it a paradoxical twist. In treating the presence of mythological figures in Florentine painting, he focused on how these artists represented movement. He argued that it was not the motionless, well-balanced body that served as the model for the imitation of Antiquity, as in Winckelmann's view of art history, but rather the body caught up in a play

of overwhelming forces, limbs twisting in struggle or in the grips of pain, hair flowing, and garments blown back through exertion or by the wind.

For Warburg, stillness was replaced by a dynamic motion: as he once commented the Renaissance was, 'that age of internationally migrating images'. This process is perhaps most clearly demonstrated in a lecture he gave twelve years later in 1905, 'Dürer and Italian Antiquity', which introduced a key concept in his work, the notion of *Pathosformel*, or Pathos-formula.

Warburg took as his starting point an engraving by Albrecht Dürer from 1495 depicting the Death of Orpheus, created during a youthful visit to Italy and now housed in the Kunsthalle in Hamburg. The subject for this study is familiar and had been used many times by earlier artists. However, Warburg argued that the specific posture of Orpheus, shielding his body from the murderous blows of Dionysus' maenads had a special significance. Warburg saw in the fearfully raised arms of the poet in the moments before his death a direct echo of an earlier etching by an unknown artist from Ferrara. Subsequent scholarship has indicated that both were likely to have been influenced by a now lost image by by Mantegna. More significantly, however, as Marcus Andrew Hurttig has commented.

Warburg was able to show decisively that Orpheus's defensive gesture was a faithful adoption of a motif going back to antiquity, for which he coined the term 'pathos formula', which has since become, in effect, a technical term. (17)

The significance of this inherited gesture in the Dürer etching is twofold. On the one hand, it establishes the idea that gesture could encode an idea: it becomes a trace through which it can be passed from one generation of artists to another; on the other hand it marked a conclusive shift away from Winckelmann's view of classical art. To quote from Hurttig again:

[Warburg] accepted as fundamental that the sculptures of classical antiquity could indeed possess 'noble simplicity and calm grandeur', in accordance with the god Apollo, but claimed that the passionate and destructive menace of Dionysic power should not be ignored.

The full significance of the Pathosformel is perhaps best captured in these lines from Ernst Gombrich - who had joined the institute in 1936, becoming its director in 1959 – from his *Intellectual Biography* of Warburg.

For Warburg it is not the animal but primitive man who surrenders totally to the emotions and passions which hold him in their grip and who thus coined those highly charged symbols of basic reactions which live on in tradition as the archetype of human experience.

It is, above all, the waves of religious enthusiasm in primitive ritual and Dionysiac frenzy which crystallize in symbols or 'engrams' of permanent significance. Herein lies the importance of 'Dionysiac' Greek antiquity for our Western civilization. In its myth we fined enshrined the extremes of emotion and self-abandon from which modern man must enshrine in awe but which, as preserved in the symbols of art, contain those very moulds which alone make artistic expression possible. Without the primeval passion which was discharged in maenadic dances and Bacchantic frenzy, Greek art would never have been able to create those 'superlatives' of gesture with which the greatest of Renaissance artists expressed the deepest human values. (243)

This idea of tracing an historical idea through images underpins Warburg's entire intellectual project. In the final years before his death in 1929, he was engaged in an unprecedented attempt to trace these streams of influence across history, not through a conventional writing or re-writing of art history, but instead through a direct visual record of these developments. Incomplete at the time of his death, his 'Mnemosyne Atlas' is still one of the most remarkable projects of 20th Century historiography. Named after the goddess of memory and mother of the Muses, and containing a direct reference to the work of Richard Semon, the Atlas presents a multi-layered visualisation of the evolution of Western art. In his recent book, Metaphor, Memory, and Aby Warburg's Atlas of Images Christopher D. Johnson sketches the shape of the project:

Before us lies a black and white photograph of twenty-four photographic reproductions. Varying in size, the images are arranged in five uneven rows, provisionally mounted on mats, and fastened more provisionally still to a black background. Although they lack captions, and their styles vary considerably, the images can be easily distinguished as belonging to the European Renaissance. Many will also discern in this second-order tableau of paintings, drawings, sculptures, artefacts, manuscript and book pages, a more or less common theme: the death of Laocoön. Less easily deciphered, however, is the rhyme or reason for this photograph of photographic reproductions. Opaque is why some images are privileged by their relative largeness or central position, and why others appear devalued by their smallness or marginal position. (Johnson, 2012, ix)

Johnson's description of one panel of the sixty-three that make up the extant *Atlas* hints at the challenges Warburg's work offers. Here is a vision of art history that is arranged syncretically, inviting the viewer to generate their own pathways through and across the work. Johnson has likened the Atlas to that other grand, unfinished, historical endeavour of the same period, Walter Benjamin's *Arcades Project* (2012, 16), which sought to excavate the history of Nineteenth century Paris through a vast assemblage of fragmentary sources focused on the passages and arcades that criss-crossed the arteries of the city's grand boulevards. In both cases, the method transcends simple dialectics to create new energies out of previously unimagined juxtapositions. He quotes from Benjamin's 1940 essay 'Theses on the philosophy of history': "The true picture of the past flits

by. Only as an image, which flashes up in an instant when it can be recognized and is never seen again, can the past be held fast." (17)

Paralleling the development of the Atlas, Warburg's Institute, with its ever-growing collection, presented a new way of exploring historical memory. Indeed, when developing the organisation of his library, Warburg invoked what he referred to as, 'the law of the good neighbour.' As Fritz Saxl, who took over directorship of the institute after Warburg's death, describes it,

The unknown neighbour on the shelf contained the vital information, although from its title one might not have guessed this. The overriding idea was that the books together – each containing its larger or smaller bit of information being supplemented by its neighbours – should by their titles guide the student to perceive the essential forces of the human mind and its history. Books were for Warburg more than instruments of research. Assembled and grouped, they expressed the thought of mankind and its constant and changing aspects. (Gombrich, 327)

It is this law that I wish now to invoke, and in a spirit of benevolent neighbourliness call on the American painter Cy Twombly.

Cy Twombly was born in 1928 in Lexington, Virginia, where his father was a sports coach at the nearby Washington and Lee University. Following an early training at the Art Students League in New York City, he met fellow painter Robert Rauschenberg and followed him in 1951 to the celebrated Black Mountain College in North Carolina, at the time under the rectorship of the poet Charles Olson, whose poetic philosophy had been published as 'Projective Verse' the previous year.

Twombly was one of a generation of painters to emerge in the wake of Abstract Expressionism; around two decades younger than Mark Rothko, Willem de Kooning, or Jacksonn Pollock, his work nevertheless shows the profound impact of post-war American abstraction.

Early works, such as Min-Oe, completed at Black Mountain drew on an interest in ancient Iranian bronzes, and possess a thickly caligraphic use of paint, lending the images an almost writerly quality; inscriptions written in a text waiting to be deciphered. These works clearly came from a recognisable lineage; one that included painters of the second wave of Abstract Expressionism, like Franz Kline who was teaching at Black Mountain during Twombly's stay, and Robert Motherwell who helped the young painter get his earliest exhibition in New York.

What marked Twombly out most from his contemporaries, however, was the prevailing European influence on his work. The post-war period marked a decisive move of avant-garde energy from Europe - focused on Paris - to the US, and specifically New York. Although based periodically in the city in the 1950s and 60s, it was to Europe, and to Italy, that Twombly was drawn, and would spend the major part of his career. After an initial visit with Rauschenberg in 1954 that included a significant period travelling in North Africa, Twombly settled in Rome in 1957. This period coincided with the production of a number of large-scale pieces that could be said to mark the first phase of his mature work. Shifting decisively away from the lyrical abstraction of earlier Abstract Expressionism, a work like Olympia from 1957 presents the viewer with a surface swarming with surface detail. works such as this gave rise to the view of Twombly's art as a form of graffiti: symbols both arcane and obscene fought for space on vast wall-size canvases on which scrawled handwriting could also be discerned. In stark contrast to the seeming chaos on the canvas, the painting's title might appear to be little more than a slightly off-colour joke on behalf of the painter. Taking in isolation, this might indeed be the case, but when one discerns the frequency with which these classical allusions occur in his work it is evident that here is a painter who is prepared to engage the visual and verbal legacies of the classical world. As Richard Howard has suggested:

For Twombly, Mediterranean *pathos* has always been an invoked phenomenon. Somewhere on his giant canvases, among glowing or effaced marks and signs, the glorious names are scrawled like so much scornful graffiti: Apollo, Virgil, Troy... When I had occasion to put together a program of poems alluded to in Twombly's work, it resulted in a veritable anthology of the classical world, from Homer to Cavafy. [35]

Nevertheless, this sketch of Twombly's career would seem to place him in a clear lineage of abstract artists; an art that moves further and further away from the norms of the figurative. At first blush then, trying to read the work of an abstract painter through a Warburgian framework of Pathosformel might seem more than a little perverse. Indeed, if one was looking for a painter whose work might provide a contemporary continuation of a Warburgian Pathosformel it would seem logical to focus on those who have taken the human figure as their main subject. It is not difficult, for example, when looking at the twisted and distorted bodies in paintings by Francis Bacon to discern a distinctly Twentieth century take on the dionyisiac frenzy. Lucian Freud, too, might seem a good candidate with his tense psychologically complex portraits.

However, I wish to return to the idea with which I began this paper: Richard Semon's notion of the 'engram', this mark or trace. As Ernst Gombrich commented,

Put in a nutshell, Semon's theory amounts to this: memory is not a property of consciousness but the one quality which distinguishes living from dead matter. It is the

capacity to react to an event over a period of time; that is, a form of preserving and transmitting energy not known to the physical world. Any event affecting living matter leaves a trace which Semon calls an 'engram'. The potential energy conserved this 'engram' may, under suitable conditions, be reactivated and discharged – we then say the organism acts in a specific way because it remembers the previous event. This goes for the individual no less than for the species. It was this concept of mnemic energy which attracted Warburg when he took up the theories of his youth on the nature of the symbol and its function in the social organism. [242]

I would like to suggest that Twombly's painting possesses precisely these qualities, albeit transferred from the living matter of an organism to the 'dead matter' of painting. This emgramatic quality of Twombly's may be seen in his early graphic works in the teeming semiology of has canvases and in later works through the use of repeated and reworked motifs. The classical legacy becomes something much more complex when read in this light. I do not have the space to

However, in the final section of this paper, I want to take as my focus a work completed by Twombly in 2001: a sequence of 12 large canvases, each around three metres wide by two metres high, that goes under the collective name *Lepanto*. This polyptich is one of the most ambitious projects of his career, and was completed when the painter was 73 years old. It is significant that this muti-part painting be viewed as a single work rather than a discrete series of separate works.

Twombly's use of the polyptich can be traced back to his Discourses on Commodus, a sequence of nine works completed in 1963, and then deployed sporadically throughout his career, notably in works such as the ten-part Fifty Days at Iliam from 1978, as well as the two versions of *Quattro Stagioni* completed in 1994. In each case, one sees the mutation and transformation of a repertoire of ostensibly abstract forms over the sequence of the work.

If we move through the twelve canvases it is possible to discern, by way of their repetition and variation, how initially abstract shapes accrue both form and meaning when viewed across the sequence... Whilst this may seems a long way from Dürer's redeployment of a formulae of classical pathos in his etchings of the late-15th century, I would argue that an analogous process is at work here: Twombly pulls out of these abstract canvases a series of formulae that come to stand in for a wider range of ideas. The engram is both the material trace of paint left on the canvas, but also the vibrations that arise when then viewed as a sequence. Figuration is pulled out of abstraction.

Of course, this polyptich, perhaps above all others in Twombly's oeuvre invites a more literal reading of the fiery reds that stream across the canvases. In a catalogue note, Kirk Varndoe notes,

The name Lepanto, once attached to a village at the mouth of the Gulf of Patras, long ago disappeared from maps of Western Greece. But for centuries, no educated European would have been ignorant of the 'clash of civilisations' it evoked. In the waters off this port, on the sunny Sunday of October 1571, a combined Spanish, Venetian, and Papal armada met and decimated the massed fleet of the Ottoman Empire. Instantly hailed as the salvation of Christendom then at peril from relentless Ottoman expansion, the victory at Lepanto came to be seen as a hinge of history - the decisive turning point in the struggle between East and West. [45]

With this in mind, the naval battle becomes evident; the horizontal forms resolve into the ships of the opposing armies; their ordinance rendered red-gold in the fiery leaves; we are not, perhaps, so far from The Fighting Temeraire after all.

## As Varndoe continues:

Lepanto unfolds its story wordlessly, in evolutionary scenes all governed by the same essential 'viewpoint'. On every ocean canvas, as the arrays of vessels parade by in staggered ranks, all in profile, they conform to an implicit birds-eye vantage point, steeply tilted and without horizon, that offers a midpoint between the confusion of sea level experience and the clarity of an overhead plan. Not in the least arbitrary, this conception may distantly evoke Twombly's elevated hillside vista of Gaeta's bay, but more certainly subsumes and transforms the convention of many traditional battle memorializations since the Renaissance - the device of an imaginary overview, part diorama, part diagram that seeks to fuse credible witnessing and clarified understanding, at a point somewhere between mimesis and mapping.

Painted in the spring of 2001, but first exhibited at the New York base of Twombly's gallerist Larry Gagosian in January and February 2002, it is clear from the catalogue essays that this work, could not but be seen in the aftermath of 9/11 as uncannily preemptory. Any specific political reading that the sequence might invite is not my focus here, however.

For Warburg the process by which the Renaissance sought to inherit its classical legacy is seen in an attempt to somehow tame the irrational energies of classical art. As he commented in his introductory note to the Mneomsyne Atlas

It is this process of 'undemonizing' the inherited store of impressions that fear had once created which embraces the whole gamut of expression in the grip of emotions, from helpless brooding to murderous cannibalism. It is also in the dynamics of human expressive

movements which lie between the extremes of orgiastic seizures – such as fighting, walking, running, dancing, grasping – the hallmark of an uncanny experience. It made the educated public of the Renaissance, brought up in the discipline of the Church, look upon this sphere as a forbidden region where only the godforsaken who indulged in unrestrained passions were permitted to run riot. It is this process which the Atlas Mnemosyne is intended to illustrate. It is concerned with the effort psychologically to absorb these pre-existent coinages for the rendering of life in movement. (291)

I would like to conclude this paper by suggesting that for Twombly an analogous, but inverted process is at stake in his polyptichs. They seek to re-demonise the language of abstract expressionism, to transform it through the discovery of a contemporary pathosformel, and to find a new way of drawing Dionysus out of Apollo.