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THE CROWD: momentum, energy and the work of Cy Twombly

This paper was formerly available in the 'Cognitive Poetics' section of the North American Center for Interdisciplinary Poetics web site. The paper proposes to bring comprehension of momentum and energy into understanding through a discussion of the graphic work of Cy Twombly. The research is limited to work made by Twombly in the period 1951-1987. The phenomenology of looking at Twombly's work leads to a pragmatism that breaks down the conventionalist's proposal for cultural singularity in semiological discourse and presents cognition with unresolved issue and a challenge to description. In the process of the response to Twombly's work the paper demonstrates a contemplation of some perception theories proposed by scientists like Peter Medawar and writers like M. Merleau-Ponty; art historians like Meyer Schapiro and mathematicians like Kurt Gödel. These theories and experiences have been juxtaposed with research into, quotation from and commentary on all of the articles available from The British Library and Senate House catalogues, on Cy Twombly's work in English in 1987; from Charles Olson in 1952 and Roland Barthes and Herner Bastian in the '70s; to Richard Francis, Roberta Smith and Harold Szeeman in the 1980s. This regrettably missed out important articles written by Marjorie Welish, 'A Discourse on Twombly' 1979 and 'Early Paintings' 1983, both of which are reprinted in Marjorie Welish (1999) Signifying Art. Essays on Art after 1960, Cambridge University Press.

This paper proposes to bring comprehension of momentum and energy into understanding through a discussion of the graphic work of Cy Twombly. I have limited by research to work made by Twombly in the period 1951-1987. The phenomenology of looking at Twombly's work leads to a pragmatism that breaks down the conventionalist's proposal for cultural singularity in semiological discourse and presents cognition with unresolved issue and a challenge to description. In the process of the response to Twombly's work I have contemplated some perception theories proposed by scientists like Peter Medawar and writers like M. Merleau-Ponty; art historians like Meyer Schapiro and mathematicians like Kurt Gödel. These theories and experiences have juxtaposed with research into, quotation from and commentary on all of the available articles on Cy Twombly's work in English in 1987; from Charles Olson in 1952 and Roland Barthes and Herner Bastian in the '70s; to Richard Francis, Roberta Smith and Harold Szeeman in the 1980s. Most viewers of works by Cy Twombly are capable of making spatio-temporal discriminations with extraordinary accuracy. In normal sight, that is in the examples of most human subjects tested by opticians, relative position, width or size of image can achieve a hyperacuity much finer than the spacing of even the smallest foveal cones in the eyes.

Hyperacuity in spatio-temporal vision refers to an accuracy in judging relative position that exceeds the system's resolving power. Whereas the resolution at each fovea in humans is about 1 arc min., humans can detect positional discrepancies of as little as a few arc seconds. The foveæ are the small, central areas of the retina containing the highest density of cone photoreceptors to provide high spatio-temporal resolution.

Contemporary with such ability in human vision are the misconceptions of prevalent culture that disregards the constructions which precede the process and production of perception. Put more lightly, it might be said that perception is mediated by what the perceiver knows, by memory and experience. In more explicit terms, perception includes the process of constructing and producing, not of what is being looked at, but of what is seen. Producing Cy Twombly's two-dimensional works for spatio-temporal information as part of the process of viewing, the eyes may make discrete samplings along the length of lines comprising what is being looked at, at times it is as if the eyes were following an indiscernible structure. On the one hand, this process has a relatively small impact on the accuracy of spatio-temporal discriminations, presumably because the foveae have little intrinsic positional uncertainty between marked and unmarked parts of the surface. On the other hand, Twombly's paintings and drawings are non-Aristotelian; that is they deliberately include facture derived from the peripheral and unfocussed vision that leaves fragments of erasure extant.

Non-Aristotelian refers to Alfred Korzybski's idea of order. Its complexity (in 1941) involved fifty-two orientations recognised as different from the antique Aristotelian system which had been perpetuated until the middle nineteenth century and later Modernist period. Examples of non-Aristotelian orientations include asymmetrical relations for evaluation; electronic processes; infinite-valued flexibility; empirical non-identity; dynamic relativism; empirical four dimensional spacetime; sub-microscopic levels; non-Euclidian systems; Einsteinian systems; psychosomatic integration; and elimination of verbal paradox.

Twombly's works, like many of his contemporaries' works, necessitate different viewing distances and different spatio temporal samples in the direction orthogonal to the discrimination cue, which reduces thresholds, such as might be expected in an imagined, ideal viewer tracking parallel to the picture plane, and occasionally stopping to focus upon samplings from left to right across the surface.

The theory and practice of actual tracking involves the complex difference of reading (in Romance languages left to right) and of seeing an image at once.

As well as the physiological cues, there are the pictorial cues of depth. If certain features can give depth information on a canvas then perhaps these same features may be used by the brain in its interpretation of the flat retinal picture. The anatomy and physiology of the human retina and cortex leads to the production of spatio-temporal uncertainty. Put differently, samplings realised from peripheral vision lead to the perception of a sparse neural sampling grain. The optic-neuron fibres make synapses with cells in the lateral geniculate (bent at a sharp angle) body and the axons of lateral geniculate cells terminate in the primary visual cortex in the brain. Both sparse sampling grain and the scrambling of neural signals introduce positional noise uncorrelated between stimulus samples in peripheral vision. Humans necessarily require an ability here which in 1817 was named by John Keats as Negative Capability (Letter to George and Thomas Keats, 21st December 1817.).

Sparse sampling refers to a process of selecting a random sample by scattering. The grain refers to the limits of the extent to which an image can be enlarged without serious loss of definition. This concept was reiterated by the poet and teacher Charles Olson at Black

Mountain College in the early 1950s. Cy Twombly came to the college in 1951 and 1952. In 1927 the physicist Werner Heisenberg (who, according to Jonathan Williams, attending Black Mountain College as a student in 1951, Olson was always quoting Heisenberg) had expressed a view in terms of probabilistics and derived from the findings of scientists such as Max Planck: where the participator (not just the viewer) can no longer simultaneously measure position and acceleration, and where classical determinism breaks down. Olson connected Keats' 'Negative Capability' with Heisenberg's 'Uncertainty'.

Nathan Rosen, the physicist who had worked with Einstein, started teaching at Black Mountain College in 1951.

The break from classical determinism proposed a sigh of relief that is still to be fully realised. It is, as Keats said, that capability of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason. Such can be thought of as part of the pragmatism of Twombly's mature mark facture - a facture elaborated below. It is thinking that breaks down the conventionalist's crowd-out proposal for singularity in the semiologic discourse. Singularity in the sense proposed here involves an over centralised view of artistic production. This over-centralised view, derived from the crowd-out of semiotic analysis, can only provide an incomplete analysis of material production. To provide a fuller analysis of practice it is necessary to include pragmatic description with semiotic analysis.

Expression and function of the receptor

Mature mark facture arises from progenitory facture by a complex and only tentatively comprehensible process of differentiation in both Twombly's, and the participator's, proprioception. (I elaborated on the matter of proprioception in 'Notes for the Conference Contemporary Poetry and Performance', published in *fragmente* issue 7, Skegness, 1997.) Mature mark facture is deliberate and made consciously through a mnemonic electrochemistry activated by stimuli produced within Cy Twombly by movement in his own tissues, a mobile memory that may be summed up by the phrase patterns of connectedness and which establishes the activity summarised as consciousness. The viewer's consciousness becomes involved in a proprioceptive search which can lead to an imperfect fit, between perception and the object that initiates perception. This imperfect fit constitutes aesthetic experience.

The concept of imperfect fit involves the relationship between consciousness and aesthetics. In this relationship a pattern of connectedness between an object and its image in the perceiver's perception can almost match, and where this near-match has the capacity to produce a more significant aesthetic effect than, for instance, a perfect match and identity, or a complete mismatch and distinction.

For the purpose of analysing the aesthetic experience, it is useful to describe Twombly's painting and drawing in terms of marks and mark clusters. For conceptual, and not always visible purposes, these marks and mark clusters can be divided into four major non-Aristotelian types. For the purposes here they are:

(Type one) Initial mark facture;

(Type two) Mark facture that acknowledges, or takes account of Type one mark facture's precedence; but does not overlay it;

(Type three) Mark upon mark;

(Type four) Mark facture quite separate from existing mark/s. Conceptually and pictorially distinct from existing mark/s.

Illustrations of mark types

Type one can be thought of as progenitory: the place where the instrument for mark facture (oil crayon, brush or pencil) touches the plane of attention, the paper or canvas. This mark ceases when the instrument leaves the surface of the paper or canvas. Subsets of such a type would derive from a recognition of hesitations: hesitation in the facture may be considered as a shift from an initial mark facture to facture described as post-progenitory. These marks, or mark clusters, derive from a language articulated more or less by the muscular-skill-plus-mnemonic-practice of Twombly's application of instrument and the viewer's apprehension of the sensations they effect. Type one mark facture need not convey more than a conscious understanding that a process has started, which is already subsequent to Twombly's choice of surface and instrument; choice of where and when it begins; and his own multiple proclivity from previously having factured marks elsewhere (chreodic) and/or having seen the mark facture of others on walls or in Academy frames (simulatory). The two contrasting states here are seen to be inseparable. Twombly's chreodic (idiosyncratic) facture at the age of 21 at his first exhibition in 1951 cannot be understood separately, or as distinct from, what he has learnt from simulation (via the facture of others). Type one marks and mark clusters are thus already 'cooked', that is coded, complex and available for production in the viewer.

Chreodic - C.H. Waddington's derivation from the Greek meaning necessary path and referring to the pathway of change or process as canalised. Once a social or anthropomorphic process of change has started in a certain direction it is very difficult to divert it.

Simulation may be summarised as reproduction of the already reproduced. The practice derives from the Renaissance painters' use of grisaille and quotation. Its contemporary use has increased since the invention of photography and mass production printing.

There are many approaches to understanding that initial mark facture is already coded. One of earliest derives from the first century, Longinus' *On the Sublime*, which noted: In all production Nature is the prime cause, the great exemplar; but as to all questions of degree, of the happy moment in each case, and again of the safest rules of practice and use, such prescriptions are the proper contribution of an art or system. To this may be added the scientific understanding, exemplified by Peter Medawar's demonstration, that the ability of the immune system to distinguish 'self' from 'non-self' is not inherent but is learnt during the system's development as a result of exposure to 'self' molecules. It is a view that reiterates Korzybski's recognition that as humans, and unlike most animals, we

do not need to repeat our history, but can use our past to produce the basis for a different future. The viewer may think they have thus become skilled in identifying initial mark facture, since, as Longinus and Medawar make clear, it is already coded, but a different significance is assigned by Barthes in terms of its sublimity. Barthes' sublimity is partly arrived at extrinsically by the viewer's experience and only partly as a consequence of the sensations derived from Twombly's discourse. (The idea of discourse here echoes Picasso's note that painting is a kind of thinking.) Barthes' essay 'Cy Twombly: Works on Paper' notes: There exists what we might call a sublime form of what is drawn, sublime because stripped of any scribbling (abrasion), any lesion: the drawing instrument ... descends on the sheet, makes contact - or hardens - there (or moons upon it) that is all. (The quotations from Barthes use Howard's translation, with Martin's translation in brackets where the alternative offers a different emphasis.) Now whilst it can be noted that the instrument may push below the surface of the ground', particularly when the surface is a thickly prepared canvas, and factures a rise or mound within the valley of its indentation, which may be used to assess whether the beginning or the end of a line is being recognised, such an investigation might prove impossible or over pedantic, because subsequent mark facture may necessarily interfere with any recognition of an initial mark. Barthes imposes sublimity upon Twombly since he interprets the meaning of a line that must be ambiguous (in its history) given Twombly's method of facture. Any confusion between already coded facture and the predetermination in perception of the post-factural results have been left intact. Type two mark facture continues type one mark facture, except that it acknowledges that the mark facture has been preceded by a mark or marks already made on the same plane. The comments with regard to the recognition of this type of cluster are thus the same as those applied to type one clusters: recognition is too interfered with to effect a differentiation. In Twombly, type two mark facture invites two particular proclivities in his muscular mnemonic activity. The first (type three mark facture) factures mark upon mark: the second (type four mark facture) factures away from marks already made. Both types three and four are distinguished from types one and two in that they involve more than one distinct mark on the surface. Mark facture types three and four thus constitute examples of mature mark facture. Functionally, mature mark facture expresses only type three or four. which is to insist that it cannot be proposed, as a necessary intention, that Twombly's work expresses type one or type two clusters, even when mark one or two clusters have become types three and four (that is, for instance, when the conceptual decision was not to make another mark). Discourses that apply their theses on the basis of type one or type two clusters are, therefore, crowd-out-dependent and involve inferring signifiers they cannot perceive as discrete elements. Any essentiality, any notion that essence precedes existence (as an inversion of existentialism, for instance) offered by the work of Twombly is derived extrinsic to his surfaces, and as far as can be proven to date, only in the texts of those that discuss Twombly, rather than in Twombly's own stated intentions.

Extrinsic commentary uses information derived from outside the picture plane, yet applied to perception of the picture plane. Intrinsic commentary uses information derived from the picture plane without specified contextual support.

All discourses derived intrinsically from Twombly's surfaces are relying on sensations from type three and/or type four mark clusters, clusters which, as it has been suggested

above, are always coded and constructed.

I am speaking about the kinds of questions which arise when two or more scholars ... come to alternative, though not necessarily mutually exclusive, interpretations of the same set of historical events (Hayden White).

Charles Olson began the history of viewers' discourses in 1952 when he wrote that Twombly's genius lay most in innocence rather than in the candour now necessary. It can now be proposed that such innocence need not precede Olson's candour - indeed - it is now necessary to propose that such innocence is post-experiential. When Barthes says that Twombly has his own way of saying that the essence of writing is ... only gesture. this is elaborated by his own admission earlier in his paper, that this appearance does not coincide with the language so much simplicity and innocence should awaken in us, as we look at it. Thus, whilst type three clusters contain progenitory facture capable of giving rise to all the chreodic and functional classes of other mark types on adaptive transfer, it is only by adaptive transfer (understood as a form of recognition, used in combinatorial cell biology, in which the image is produced. but never actually seen) that most of the philosophical ramifications of Twombly's art are considered by such writers as Roland Barthes and Heiner Bastian. The function of the major population of marks, the type three-plus-four marks, in the differentiation of adaptive transfer is controversial, and provides one of the bases of this paper. It may be proposed that they represent terminally differentiated marks which are rejected by adaptive transfer and are, in short, crowd-out experiences, what Paul De Man calls a rhetorical blindness; or it may also be proposed, they represent an intermediate stage and can differentiate into functionally and chreodically mature marks in discrete clusters. Adaptive transfer of Twombly's work, in Richard Francis' Aristotelian discourse, is described as an Augustan sense of decorum, coupled with a dislike of 'enthusiasm', as well as an ability to display a passionate elegance with enviable grace. Charles Olson knew what Twombly was fighting for. It is what he is always trying to get down, what he so often does so succeed in getting in to what he is confronted by - into that rectangle - that honour & elegance are here once more present in the act of paint. For Barthes the value that Twombly deposits in his work can reside in what Sade called the principle of delicacy (presumably referring to the fragility of construction). The complex reception of type two clusters suggests the kind of perception expected from progenitory mark facture. Such receptions give a high regard to proprioceptive differentiation - in so doing they encourage a desire in subsequent viewers who wish to perceive the work which has two options for realisation of that desire: recognition of the discrete mark clusters, even where they overlap, and transmembrane signalling, or conveyance of what they collectively signify as a discourse. At least, that is one proposal for how a response is indicated, which may, and evidently in many reviewers does, shift into a discourse potentially different from Twombly's. To help clarify the function of type-three-plus-four mark facture proprioceptive differentiation, the expression and function of the receptor/participator complex on these marks should be determined. Most three-plus-four mark clusters express multiplication of type two, and mark two functions in transmembrane signalling. 'What is carried by a verb like express?' For *Art-Language*, the point of issue is just how or by whom, the expressive referents of works of art are fixed. For their discourse this is particularly difficult because there are no 'relative constants' applicable to any notion of the great themes of the psychobiological

human condition. This is not, however, a problem when it is realised that the expression in a work of art is produced by the viewer as much as by the person who factured it. Any expression in the artist's pictorial facturing, whether derived from elements of work by Gustave Moreau, Vincent Van Gogh, *Die Brücke*, Paul Klee, or even Picasso, or derived from subsequent ideas summed up as Abstract Expressionism, can only lead to an understanding of that expression in the viewer who has experienced how such ideas might be coded and signified.

In this context examples of Symbolist and Expressionist works could include: Moreau's paintings from the story of Salome, Van Gogh's Sorrow, Kirchner's Stepping into the Sea; Franz Marc's Reconciliation, Klee's diagram in his essay 'Ways of Studying Nature', Picasso's (1903) La Vie, Jackson Pollock's Lavender or Barnett Newman's (1946) The Command.

Reading into the marks on the Twombly surface as if they expressed unconsciousness is probably a consequence of reading the marks as type two (or even type one). Yet Twombly's presentations are displays of mature mark facture: a mature mark facture which does not present initial or type one marks independent of the marks that follow: a mature mark facture that can not and therefore does not signify type one mark facture. The perception of Twombly's works encourages the viewer to produce through type three and/or four mark clusters and, therefore, encourages the viewer to co-operate in a discourse that is both already coded and constructed, but already fraught with uncertainty.

'There came a man who dealt with whiteness. And with space ...' (Charles Olson.)

Twombly's mark facture is mature and proper to himself (proprioceptive), understood as encompassing the comprehension that any 'innocence', any apparently unmediated practice, any jump for joy in its praxis, is post-experiential. His surfaces are composed by mark clusters of at least two recognisable types and two others that the viewer cannot discern but only infer. The geometry is often non-linear and gives potential, at least, for both a non-Aristotelian understanding and an indeterminate narrative that is enhanced or altered by the use of four kinds of phase spacetimes typical to painters who use process-showing, erasure and collage as part of their practice.

Non-linear: deviations from the additivity of responses to additive actions are not the exception but rather the rule. The same holds for the existence of systems in which the knowledge of an arbitrarily large number of individual solutions is still insufficient to predict the further motion of the system. In all of these cases the implications are that the linear approach is no longer applicable and it was realised that non-linear problems are of fundamental importance for shaping our understanding of very different phenomena.

Phase spacetime. One way to visualise the patterns defined by the connectedness of variations is to imagine a multidimensional spacetime continuously tracing out a curve. At any one moment the single position contains all the informations about the state of the physical system. Its projections along the various axes give the values of all the relevant quantities that pin down a unique state. This is a phase spacetime.

It is part of Twombly's Negative Capability that these innovations are presented, what they are matched by, however, are different orders of production in the

participators/reviewers. O'Hara infers 'screams' and 'bitter'; Bastian 'reads' this mark facture as producing both 'transitoriness' and Jungian 'anima'. Bastian, Smith and Szeeman produce this into an idea of facture as either without a past or at least as deriving from finding an 'essence'. Twombly, however, who precedes these adoptive transfers deliberates from constructions, from both, as Bastian calls them, 'objects' and from his muscular-mnemonics. There is an insistence in the works between what is referentially stated, (such as works by Raphael and emblematic signifiers for cock and ball, virgina, anus) and what is reconstructed through his less explicit lines, marks and mark clusters. There is, that is to say, a chreodic and semiotic connectedness that patterns. Twombly's work is not a conflict of muscular mnemonics and referentiality, but a decided upon aesthetic dimension. It is this dimension, this tropological unity, rather than the reviewer's produced ghost of essentiality, that produces Twombly's innocence.

The term tropological derives from the Greek tropos and involves stating that what you see is limited by where you are, both actually and metaphorically.

It is an innocence presented as a struggle, an unresolved necessity, which may be thought of as a simulation of Negative Capability through metonymic signification.

Metonymy is a rhetorical figure directly related to allegory. It relies on understanding a substitution of a word referring to an attribute for the thing that is meant, such as 'the law' for 'the police' or 'the crown' for 'the monarch'.

Twombly's plane, seen as a contemplative phase spacetime, supports elliptic recurrence with homomorphic tangles that appear to be either random or disordered. But the largely two-dimensional surface (a dimensionality that increases if the sometimes revealed depth of impasto were to be considered) is now part of the viewer's production, including the viewer's predisposition and mediated perception. Some types of limiting are appropriate to name here before an understanding of the planes and their openness can be analysed. The different planes in the painting may be considered as four layers of spacetime. The fourth being the latest and nearest the viewer. This ideal or non-empirical conception of analytical potential perceives the mark clusters on the top surface of the picture plane as the fourth level. This fourth level includes Twombly's use of collage. For Twombly collage is a subset of the fourth level, the glued-on paper has simply replaced the application of paint. The third level of the plane can be called the constructed crowd-out or the plane of erasure or cover, the plane that includes fragments from removals or operates as a masking. Collage may be considered a subset here also, or perhaps as an interface between levels four or three. The second level is the preparation upon the initial surface, such as white primer or gesso. The initial surface of paper or unprimed canvas is level one. All of these levels, or any of them that when put together constitute all there is of the particular work in terms of its material, may be summed up as the plane, or the field.

In 1910 William James wrote of consciousness as 'a field composed at all times of a mass of present sensations, in a cloud of memories, emotions, concepts, etc.' In the same year Ernst Steinitz published his paper of abstract mathematical entities called fields. Fields were first defined by Richard Dedekind in 1879 as sets that obey certain simple rules. The definition was preceded in 1864 by Maxwell's 'A Dynamical Theory of the

Electromagnetic Field,’ and the work of Faraday that preceded Maxwell’s [my paper on ‘Fields’ was given as part of the TALKS programme at King’s College in 1999 and will appear as an element in crowd-out theory].

The plane Twombly presents is both various and chreodic: he factures up to four levels the total of which offer the potential of a patterned field, Korzybski’s order. Each plane itself becomes a processual and process-showing field. If the mark facture, or its absence, on the various levels of the plane that are visible, constitute the work’s semiologics, it is all of the levels; both the visible and the concealed parts, that constitute the work’s pragmatics. For Charles Olson in 1950 this pragmatism was ‘COMPOSITION BY FIELD’, which for Harold Rosenberg in 1952 became ‘an arena in which to act - rather than as a space in which to reproduce, redesign, analyse or ‘express’ an object, actual or imagined. What was to go on the canvas was not a picture but an event.’ The concept was elaborated by the poetry of another writer at Black Mountain College, Robert Duncan (his 1960 book of poems was titled *The Opening of the Field*.) Eric Mottram in 1974 clarified this compositional mode as ‘open field’: ‘a gestalt which encourages the inventive imagination rather than imitative recognition patterns.’ And again from Mottram, ‘Any account of open field has to take into account the remodelling of the world associated with Einstein, Heisenberg, Whitehead, the Cubists, and the Gestalt psychologists ... the changing twentieth century model of existence.’ In Twombly’s work it is a field that is produced by the viewer’s production and discourse and the sensations effected by the discourse that the work, and the territory that the work extrinsically engages with or breaks from, presents. Each discrete cluster starts with Twombly’s mark facture which is then evolved or jumped over. The narrative uses periodic states followed by quasi periodic and even independent periodicities superimposing. This is the crowd-out narrative produced by the viewer, unsure of Twombly’s order of events. In this apparent chaos of the spacetime there are precise and ordered periodicities that may be understood as multiple phase spacetime and chreodic. Sometimes the marks are unusual; sometimes they are characteristic. They appear as alternatives that may result from changes at existing synapses or from alterations in the number of functional synaptic connections. For Roberta Smith this is the place ‘where æsthetic experience, rarefied and insular as it can sometimes seem, becomes part of real life by virtue of its sheer emotional, implicitly erotic force’. In the hippo campus excitatory synaptic strength is persistently enhanced by attention. I imagine Twombly reading *The Iliad* as he takes off, destination Greece, from Rome airport in 1977. The facture of groups of associated clusters and the ability of some models of information storage and recall in the cortex are radicalised, as perpetuation of conventions and expectations are distorted or left incomplete: such as the cock and ball signifiers that linked the toilet wall at Rome airport iconographically to Greek phallic monuments in the temple of Dionysus at Delos. ‘BACCHUS’, writes Twombly or elsewhere patterns this with emblematic signifiers that specify defecation, ejaculation and slips, to quote Olson, ‘off the wire of any of us in all of the arts walk over space on these days ...’ Whether resistance has a component that is periodic may be unobservable because of impurities, or imperfections, but elastic scattering of attention does not always destroy Twombly’s packets of coherence. Phase difference in his work is both a random quality and measured: it applies to the scans of his surface by the viewer and the many levels of his plane that may be partly concealed.

Like Jasper Johns, he swings through an array of numbers with a ruler and partly erases them; or like Robert Rauschenberg presents a parabolic rush from the left lower section of the plane to the upper and lower right section.

What is non-linear or deviates from additivity in Twombly's clusters - his signifiers of geometries and Expressionistic signifiers, or rather his simulations of these referents - provide chreodic wave structures as planes.

– simulation of these referents: that is, reproduction of the already reproduced marks made to signify energy, gesture, action or anxiety in 1940s and 1950s American 'Abstract Expressionist' painting.

His recurrent patterns are maintained and repeated, and inscribe signifiers of his cellular abilities; his mnemonic skills. They open up new possibilities for the study of a spatio-temporal self-organisation in non-linear systems: make possible a more rigorous comparison with reaction-diffusion equations.

reaction-diffusion equations: returning an impulse in the opposite direction in a scatter equivalence.

For Herner Bastian it reaches 'beyond the object'.... 'of direct experience and challenges us (us meaning Bastian) to form our own (Bastian's) experiences and images'. The reductionist crowd-out, where Twombly conceals his lines with a painted-over area, repeatedly converts suddenly into relaxation oscillations of single line or a persistence can be excitable and may initiate an excursion in the concentration.

Relaxation can refer to the process undergone by neural networks to reach an optimal solution to a problem bounded by a number of constraints. Constraints are embodied in the network as the pattern and strength of connections between units. Relaxation involves convergence to a steady level of global network activity through repeated local interactions.

Temporary and permanent oscillations designate exotic phenomena in these works: both their openness and their closure. In a sense each work becomes a patterned activity that appears random and like deterministic chaos cannot be predicted and is very sensitive to the initial conditions of the system generating the activity. But these are not profiles through two-dimensional self-persuasion for mutual relation of two phenomena regularly recurring together, nor are they the shuddered rectangles in a specific chromatography, separating substances in a mixture which depend on selective adsorption, partitions between non-mixing solvents. To a large extent Twombly's work continues the non-Aristotelian stance: an often pertinent narrative that operates indeterminately at the rate of a dashed-at memory yet in a spacetime that Olson speaks of as 'contemplation', with 'the sense of what architecture now had to do with.' Frank O'Hara's 'bird' that 'seems to have passed through the impasto with cream-coloured screams and bitter claw marks, is an indented surface that, as Smith puts it, culminates 'in gestures of his arms, hands and fingers'. It is a memory that, as Bastian sees it, 'naturally preserves the act of seeing in the form of thoughts and images of what we (Bastian) have just seen,' and in which 'the

role of the speaker becomes one of remembering and attempting to reconstruct his (Bastian's) personal experience,' that is Bastian's universalising of his own cognition. The interface with these writers' cognitive analyses, that is both 'natural' and 'preserves', might be Olson's notion where 'The allure - the light - had better be in any painting, drawn, cut, or carved thing without use or reference of any object. Any narrative too, for that matter.' Bearing in mind that Olson is necessarily writing with regard to Twombly's work in 1952 or before, in which emblematic reference was less explicit, it is still necessary to note that this notion of 'without use or reference of any object' needs to be restated.

Emblems are metonymic and are common in allegorical works. Emblematic references are apparent in Twombly's work from the late 1950s when the use of drawn signs stand in place of larger conceptions such as a heart instead of love.

The structure in Rembrandt's Nightwatch may be implicated in Twombly's Night Watch (even if the lances are ignored), but this must derive from a memory rather than a precisely copied geometry: yet repeatedly in other works the suggestion could be quite the contrary (in The School of Athens for example). Any notion of 'narrative' may now be restated as what narrative as a paradigm has now shifted to.

In nineteenth century histories the paradigm was that narrative had both continuity and truth value. Hayden White's *Metahistory* has made clear the shift that has taken place from this paradigm.

It leads, as Barthes suggests (in 'The Wisdom of Art') to Twombly's 'subjects': specified by Barthes as 'culture', 'specialisation', 'pleasure', 'memory', and 'production'. These subjects may be linked to Barthes inference of Twombly's practice where 'He draws without light (in the dark)'. Was it from such an intersection of 'subjects' and 'darkness' that Olson was led to say that Twombly had 'gone outside himself, had, as so many most able men have gone outside the canvas gone to technique - when, in this one case (the painting being contemplated), Twombly had tried to solve it outside the place where he almost every time does battle it out (he is that pure.' Is this the place for Olson, between being 'pure' and using technique, that the issue of Twombly's typos (from the Greek for mark, used by Olson in discussing poetic facture) is most fraught? Or is the typos only cognated as fraught because of the ambiguity of the work being made by skill as if the facture was without conscious and deliberate intent?

The problems that Twombly's fraught typos leads to are reiterated as positive values by some of his commentators. Bastian's sense of the 'process of connection between unconscious and conscious, certain archetypes of transformation - in Jung's terms, Kore as the 'anima' ' may be closely fit to Bastian's idea that Twombly is 'free to extract his own image from the essence of the object before him.' Is the object before Twombly a painting by Rembrandt or Raphael, as his titles imply? Are the lines in Twombly's Night Watch the essence of Rembrandt's painting Nightwatch, or would they just as easily connect with the scaffolding in Raphael's The Disputa? An analysis of an underlying structure would produce a very different understanding of Twombly's work from what

Bastian's universal viewer would get, because, as he puts it, 'no one will comprehend the essence of these paintings more precisely than when experiencing this transitoriness, since everything seems to slip away at the very moment it is grasped.' For Bastian the essence of Twombly's paintings are similar 'to Pound's ideogrammatic images'. The reason for this, in Bastian's sense of it, lies in 'the essence and perception of mythological sources, a topos (from the Greek for place) that was equally inexhaustible for the creative concepts of both Pound and Twombly.' Such Jungian ideas might be better applied to Olson's 'fields', but Bastian's discourse is overt enough. Smith appears to agree with the repressive simplicity: 'Twombly found a visual mode,' she notes, 'capable of registering his most infinitesimal responses, both psychological and physiological,' and he does this 'by reducing painting to its essence'. Such a discourse can be compared with what both Smith and Harold Szeeman have said. Szeeman's notion is that the 'Abstract Expressionists' factured from 'a tabula rasa of centuries of pictorial culture—and also of the elaborate expressive forms which the Surrealists devised to evoke the treasures of the unconscious, whether by giving shape to dream images or through 'psychic automatism'.' For Smith, Twombly's stance 'posits the artist as a tabula rasa with only himself to fall back on.' It is hard to reconcile these views of Olson's, Szeeman's and Smith's with the works by Twombly they are viewing. How can such productions, such discourses by reviewers, be reconciled with Twombly's practice? Does his facture really insist upon an Aristotelian consciousness elaborated by a Cartesian geometry - a categorical consciousness with dualist perception? Do Szeeman and Smith really accept their descriptions of consciousness or are they art-historical derivations paralleled to Lacanian derivations from Freud and earlier describers? How are Twombly's 'treasures' conveyed to the viewer? Is it his reliance on the remains from the process of erasure that confirm his tabula rasa? The open field for action sought after, and often achieved, by Olson and his peers at Black Mountain College is Twombly's place of departure and place to which he brings his disputes. [See, for instance, his cover to the broadside of Robert Duncan's 1952 The Song of the Border-Guard in Harris.] This field, the topos that Olson saw 'must measure distortion of the world, as in Abstract Expressionism' (*Olson* 4), is the place that Jasper Johns and Rauschenberg depart from. This is also the place that painters like Franz Kline and Jack Tworkov (both at Black Mountain College) developed within. For Twombly, like Olson, Whitehead's idea of process becomes one of the leading opinions and tenets. 'What seems clear,' noted Olson, 'is that two dimension as surface for plastic attack is once more prime...' 'Take it flatly, a plane. On it, how can a man throw his shadow, make this the illumination of his experience, how put his weight exactly—there?' Issues of body and weight give rise to another disagreement between viewers like Olson and Smith. For Smith 'The out-of-control quality of his drawing techniques, which are rife with intimations of the deeper unconscious, make him seem like the most sustained automaticist career', which she later produces as Twombly's insinuation of himself corporeally. Barthes had elaborated such ideas earlier: 'It is his body which is bought' ... 'the body always exceeds (escapes beyond the terms of) the exchange in which it is caught up (involved): no commerce in the world, no political virtue can exhaust the body: there is always an extreme point where it gives itself for nothing.' Earlier in the essay, however, Barthes had understood the inscription of letters as 'produced without deliberation (application)' and yet where Twombly 'retains (conserves) the gesture (of writing).' What Barthes says implies that Twombly is without

self-conscious facture. Such an implication is recoded as a derivation from 'Abstract Expressionism' (where both Tobey and Pollock among others may be inferred), and work such as that made by Miro and Masson in their 'automaticist' period. The idea of being without self-conscious facture for Bastian is offered difference in terms of 'measuring' 'particularly in post-1966 works, when Twombly's main theme had become a measuring of time and space.' The body's lack of deliberation needs to be set against measuring and what Barthes calls, 'the process of manipulation, not the object produced.' 'What is real,' to which Twombly's work 'continuously recalls you, is producing (the process of production): at each stroke, 'Twombly' (disrupts and destroys) blows up the museum.' Significantly, Twombly does no such thing. Twombly's activity is factured exactly. He deliberately disrupts and breaks paradigms because he has understood what those paradigms are and relies upon them to continue his practice. Recognising Twombly's breaks of paradigm allows Bastian to note, 'Transformation and the instant are Twombly's constants, a form as untranslatable as real experience.' Barthes' signaling of Twombly's desire interacts with Twombly's politeness. It is an interaction inferring Enlightenment values that ignore the middle disposition, both desire and politeness act as significant constants and therefore present an explicit praxis. This is not an embracing of Warburg's frenzy and self-control, but its Cartesian rocker-switch that Twombly dismantles.

Middle disposition: in Friedrich Schiller's 20th Letter (On the Aesthetic Education of Man In a series of Letters, 1794) he writes: 'Our psyche passes, then, from sensation to thought via a middle disposition in which sense and reason are both active at the same time. We must call this condition of real and active determinability the aesthetic.'

Twombly's constructed praxis is signified by his references to, and quotations from, the mythologies made literature and art by Greek, Roman and Renaissance writers and artists, and through them by Charles Olson and Robert Duncan. Twombly's use of measuring aligns to Jasper Johns and Leonardo Da Vinci and is presented through metonymic displacements of materials as referents for activities. These displacements lead to understanding of Twombly's art as both post-Romantic and post-Expressionist. Such terms do not, however, give proper pertinence to his most significant function as an artist. In the presentation of works that signify the process of their facture and the sensitive-thinking this insists upon, Twombly emphasises his dimension and stance: his work is both non-Aristotelian in its critique of the cultural singularity it confronts and yet relies on that cultural crowd-out to operate and effect its critique. The insistence in this process is upon his experience as an artist who factures patterns of connectedness that provide a basis for a discourse to the producing-view that may then say that Twombly's stance is that of a post-experiential innocence. In the face and façade of the cultural malaise he is exposed to, Twombly is revealed as nervously involve in crowd-out, yet negatively capable of holding on.

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