Buckminster Fuller: The poet is the man who puts things together.

Guy Davenport: For the work of the poet is continuous while all other modes of discourse - mathematics, physics, politics - are widely discontinuous, repeating stupidities because they forget the past, stopping and starting because of barbarians, rebellions, and simple loss of vision.

Louis Zukofsky: The poet, no less than the scientist, works on the assumption that inert and live things and relations hold enough interest to keep him alive as part of nature.

Heisenberg: From the start we are involved in the argument between nature and man in which science plays only a part, so that the common division of the world into subject and object, inner world and outer world, body and soul, is no longer adequate and leads us into difficulties. Thus even in science the object of research is no longer nature itself, but man's investigation of nature. Here again, man confronts himself alone.

Nietzsche: There are no facts, there are only interpretations.

William Carlos Williams: A new world is only a new mind.

Charles Ives: Mr Price. Please don't try to make things nice. All the wrong notes are right. (marginal note on the manuscript of The Fourth of July, 1912-13)

Charles Mingus: There are no wrong notes.

John Cage's Piece for Six Radios as described by Anthony Robbins in "Smithson's Non-Site Sight" (Art News, February 1969):

The score for this piece is a tight system of dial settings on radios which the musicians follow in a specified time limit. In spite of the score, the piece is different each time it is played because stations do not broadcast the same things day after day. It also changes when performed in different cities, some of which have no stations broadcasting at those frequencies noted in the score. Cage's piece is musical in that it produces sounds; it is philosophical in that it reflects not only on the nature of music but on the nature of system-making in general.

Wittgenstein: It is the field of force of a word which is decisive.

Norbert Wiener: Physics now no longer claims to deal with what will always happen, but rather with what will happen with overwhelming probability. [Artist and scientist are] always working to discover the order and organization of the universe, and thus playing a game against the arch enemy, disorganization.

Korzybski: space and time -"a pathological semantic projection"

'Space' and 'time' cannot be separated empirically and so one must
have a language of similar structure...of interrelated ordered events...
'structure'. Einstein's theory, in contrast to Newton's theory, gives

us such a language, similar in structure to the empirical facts as revealed by science and common experience...

A map is not the territory it represents, but, if correct, it has a similar structure to the territory. [Science and Seciety, 1933]

Heisenberg: The interaction between observer and object causes uncontrollable and large changes in the system being observed, because of the discontinuous changes characteristic of atomic processes.

Max Planck: In principle a physical event is inseparable from the measuring instrument or the organ of sense that perceives it; and similarly a science cannot be separated in principle from the investigators who pursue it. A physicist who studies experimentally some atomic process interferes with its course in proportion as he penetrates into its details, and the physiologist who subdivides a living organism into its smallest parts injures or actually kills it; by the same token the philosopher who, in examining a new idea confines himself to asking to what extent its meaning is evident a priori, hampers the further development of science. Hence a positivism which rejects every transcendental idea is as one-sided as a metaphysics which scorns individual experience.

(The Philosophy of Physics, 1936, ch 3 - 'Scientific Ideas: Their Origin and Effects').

Wittgenstein: from Tractatus Logico-Philosophicus (1921)

- 1. The world is everything that is the case.
- 1.1 The world is the totality of facts, not of things.
- 1.21 The world is determined by the facts, and by these being all the facts.
- 2.04 The totality of existent atomic facts is the world.
- 2.063 The total reality is the world.
- 2.1 We make ourselves pictures of facts [the German word is Bilder, images]
- 2.11 ...the facts in logical space...
- 2.12 ... a model of reality...
- 2.141 ... a fact...
- 2.15 This connection of the elements in a picture is called structure, and the possibility of this structure is called the form of representation of the picture.
- 2.21 The picture agrees with reality or not; it is right or wrong, true or false.
- 2.224 It cannot be discovered from the picture alone whether it is true or false.
- 4.11 The totality of true propositions is the total natural science (or the totality of the natural sciences).
- 4.111 Philosophy is not one of the natural sciences...

- 4.1121 Psychology is no nearer related to philosophy than is any other natural science. The theory of knowledge is the philosophy of psychology.
- Korzybski: "time-binding" "all the factors which as a whole make man a man, and which differentiates him from animals".
- Wittgenstein: 4.1122 The Darwinian theory has no more to do with philosophy than has any other hypothesis of natural science.
 - 5.136 There is no causal nexus... 5.1361 The events of the future cannot be inferred from those of the present. Superstition is the belief in the causal nexus. 5.1362 The freedom of the will consists in the fact that future actions cannot be known now, We could only know them if causality were an inner necessity, like that of logical deduction...
- Korzybski: 'cause' and 'effect': "a rash limiting generalization from
 probability (usually described linearly)."
- John Cage: indeterminacy used to cross the boundary of causality in music:
 "that there is a necessary succession or interaction of events."
 - 5.621 If I wrote a book "The world as I found it", I should also have therein to report on my body and say which members obey my will and which do not, etc...
- C. Daly King: "Consciousness" is not "thinking" "mental activity is fully homologous with emotional activity and with sensory activity".

 Consciousness: "the relationship between the subjective entity, or experiencer, and those end-products of the neural functioning of his body which furnish the experiencer with what he in fact experiences."

 "I": "an entity postulated automatically", originating "primarily from the memory function."

(The States of Human Consciousness, 1963)

- 6.34 All propositions, such as the law of causation, the law of continuity in nature, the law of least expenditure in nature, etc., etc., all these are a priori intuitions of possible forms of the propositions of science.
- 6.341 Newtonian mechanic, for example, brings the description of a universe to a unified form...and such networks assert nothing about the totality.

[So far:

In terms of literary forms and musical compositions, Proust, Joyce, Pound, Olson, Robbe-Grillet, Boulez, Xenakis and, in film, Eisenstein: reflexive space-time fields, in which duration, intensity, density, volume, memory, all the senses, and genetic and Gestalt action are assumed. Results: the demolition of linear perspective, point of view, and fixed authority, absolutes and boundaries.

The form of the action: assemblage - a field of knowledge which obviates scepticism, belief, opinion: it is a space-time demarcation saturated with action.

The end of Aristotelian, Christian and Newtonian theories of order which require initial causal authority. The cosmos is not a power structure under single rule.

Within the operation of entropy, "order is least probable, chaos most probable" (Wiener)

- Note on Wittgenstein's 5.136: a counter to Hegel, Marx, Freud, Darwin, Toynbee, Marcuse and all prophets who construct grids of prediction based on 'history' or 'evolution' or 'repression' or 'the dialectic' or any other causal nexus.
 - 5.621 No description system may exclude the body. History as usually compiled by historians is meaningless. It is the poet who puts things together and he must put all things together: everything is the case: the totality: it is there in any case.

Wittgenstein: Philosophical Investigations 114... One thinks that one is tracing the outline of the thing's nature over and over againm and one is merely tracing round the frame through which we look at it.

William Blake: A Vision of the Last Judgment (1810) I question not my Corporealor Vegetative Eye any more than I would Question a Window concerning Sight. I look thru' it & not with it.

> A picture held us captive. And we could not get outside, for it lay in our language, and language seemed to repeat it 115 to us inexorably.

Korzybski: [the central urge of the human to perceive order is based on]

the structure of nervous systems (which) consist of ordered chains produced by the impact of external and internal stimuli and also a temporal order.

Lancelot Law Whyte: Aspects of Form (summarizing Konrad Z. Lorenz)

> ...two kinds of animal and human perception: Gestalt (the visual perception of single completed configurations, where the whole appears to dominate the parts), and mosaic (the perception of sharply defined parts)...

What is needed therefore is:

a theory of cybernetics or the science of control and communication in systems - whether the human nervous system, a complex electronic machine, a poem, a musical composition, or a city.

the chemical structure of DNA/RNA as the basis of that life-metamorphosis which is itself a form of energy, and the chemical structure of protein etc.

in the operation of the nerve synapses.

an analysis of sensuous perception and "consciousness" as functions of the human body within the totality: a concept of internal and external environmental interaction such that all dualism is obviated. Marshall McLuhan's The Gutenberg Galaxy summarizes a good deal of what is known, but we need studies like Joan Steen Wilentz's The Senses of Man.

So that:

all energy has form - we cannot help producing anything except form because energy takes this direction and operation and no other.

organic and inorganic are a single field and not an antithesis - to say a poem, for instance, is organic is a tautology, since it could not be otherwise: it has form.

DNA/RNA and protein are the bases, not something "organic": there is nothing in nature without form, and even if there were we could not know it.

L.L. Whyte: Every particular form has its own special significance within the universal order of which man is a part.

[that is: Lorenz and others have provided a biological (structural) definition of Gestalt, mosaic and intuition.]

Charles Olson: Letters for Origin (1969) - letter dated 13th June 1952

qu. Pierre Boulez: serial structure "free from all melody, all harmony, and all counterpoint, since serial structure has caused all these (essentially model and tonal) notions to disappear".

"techne as a root means 'an art' !... technics, n. reads: 'The doctrine of arts in general; branches of learning relating to the arts."
"technology is literally the science of the arts."
"form, the shape and structure of anything."

Methodology is art as a principle: "procedure + instruction" - juxtaposition, composition by field, "the cluster of force" (totality) - Boulez's term.

letter of 1953:

The trouble is, it is very difficult, to be both a poet, and a historian.

Korzybski: simultaneity and the need for sanity -

In the physiological theory of sanity, order becomes paramount. Processes and function involves a series of states, by necessity exhibiting order. Adjustment to life-conditions means adjustment of processes, and a physiological theory of sanity must be based structurally on four-dimensional order, where 'space' and 'time' are indivisibly woven.

R.D. Laing: Intervention in Social Situations (1969)

The common ground between social workers and psychiatrists is the study of and intervention in social situations.

No one in the situation may know what the situation is. We can never assume that the people in the situation know what the situation is. A corollary to this is: the situation has to be discovered...

When the situation has 'broken down' to the extent that an outside agency is brought in to help, not only may the people in the situation not themselves see what the situation is, but also, they may not see that they do not see.

We have to discover what the situation is in the course of our intervention in the situation...We require to formulate the possible and the most appropriate strategies of intervention in situations.

Moreover our intervention is already beginning to change <u>us</u>, as well as the situation. A reciprocal relationship has begun. The doctor and the still predominantly medically oriented psychiatrist use a non reciprocal static model; history comes after the complaint; examination comes after the history; <u>after</u> this one makes a tentative or if possible <u>definitive</u> diagnosis: thereafter comes 'therapy'.

Diagnosis is <u>dia</u>: through; <u>gnosis</u>: knowledge of <u>Diagnosis</u> is appropriate for social situations, if one understands it as <u>seeing</u> through the social scene. Diagnosis <u>begins</u> as soon as one encounters a particular situation, and never ends. The way one sees through the situation, changes the situation.

(and <u>verbal</u> intervention is frequently irrelevant to all concerned.)

G. Spencer Brown: Laws of Form (1969)

The work of Einstein, Schrödinger, and others seems to have led to the realization of an ultimate boundary of physical knowledge in the form of the media through which we perceive it. It becomes apparent that, if certain facts about our common experience of perception, or what we might call the inside world, can be revealed by an extended study of what we call, in contrast, the outside world, then an extended study of this inside world will reveal, in turn, the facts first met with in the world outside; for what we approach, in either case from one side or the other, is the common boundary between them...

It is all too often forgotten that the ancient symbol for the prenascence of the world is a fool, and that foolishness, being a divine state, is not a condition to be either proud or ashamed of. Unfortunately, we find systems of education today which have departed sp far from the plain truth that they now teach us to be proud of what we know and ashamed of ignorance. This is doubly corrupt. It is corrupt not only because pride is in itself a mortal sin, but also to teach pride in knowledge is to put up an effective barrier against any advance upon what is already known, since it makes one ashamed to look beyong the bonds imposed by one's own ignorance.

In the face of the strong, and indeed violent, social pressures against it, a few people have been prepared to take this simple and satisfying course towards sanity...[and attain] freedom from natural and indoctrinated shame.

To arrive at the simplest truth, as Newton knew and practised, requires years of contemplation. Not activity. Not reasoning. Not calculating. Not busy behaviour of any kind. Not reading. Not talking. Not making an effort. Not thinking. Simply bearing in mind what it is one needs to know...

In these circumstances, the discoveries that any person is able to undertake represent the places where, in the face of induced psychosis, he has, by his own faltering and unaided efforts, returned to sanity. Painfully, and even dangerously, may be. But nevertheless returned, however furtively.

Mouni Sadhu: The Tarot: A Contemporary Course of the Quintessence of Hermetic Occultism, 1962

Arcanum XXI - 'O' Zero - 37 Shin - 300

"the image of a balanced individuality (1) able to manifest itself in the moment when it is oppressed by the elements of the Twentieth Arcanum (regeneration), which are beyond its capacity to bear; when the individuality cannot manage the things encountered on its way; when it goes quickly, but not where it should go; when it does not help itself with the sceptre of accessible initiatory elements; when it is even prepared to screen itself with false defences...

If you want to command Shin, you must learn the arcana of the physical and chemical manifestations well, together with the arcana of the astral influences in Nature and their mental principles...

When you feel yourself a Victor, then die and harmonize the manifestations of your force...

It is important for oneself not to go to the precipice..it is important for one to throw away the heavy bag just in time...to throw away the silly clown's cap, and to look straight ahead. Then you will no longer be a passive object for the foreign operations of involuntary Shin...

The <u>Self</u> has no right to throw away this shell before its normal term: Karma determines one's full life-programme composed of experience and sacrifices, and the course of life should include all of these... [one should] be able to play with the toys which life here may offer us... sometimes inoculate oneself with the mirage of happiness...

Who never rests because of his wisdom, may forget about the conditions of personal egotism, and then he may not appreciate the sacrifices which his neighbour makes for him...

The mystery of involution is the mystery of the reversed, evolutionary process...

A dreadful arcanum. Wrong, unskilled, or ill-timed use of it might endanger the development of the planetary evolution. Unfortunately, this has already been done, and probably more than once in the history of earthly humanity...

Teilhard de Chardin - The Phenomenon of Man (1959)

The mind is essentially the power of synthesis and organization.

Louis Agassiz - Essay on Classification (1857)

If it can be proved that man has not invented, but only traced this systematic arrangement in nature, that these relations and proportions which exist throughout the animal and vegetable world have an intellectual, an ideal connection in the mind of the Creator, that this plan of creation, which so commends itself to our highest wisdom, has not grown out of the necessary action of physical laws,

but was the free conception of the Almighty Intellect, matured in his thought, before it was manifested in tangible external forms - if, in short, we can prove premeditation prior to the act of creation, we have done, once and for ever, with the desolate theory which refers us to the laws of matter as accounting for all the wonders of the universe, and leaves us with no God but the monotonous, unvarying action of physical forces, binding all things to their inevitable destiny.

...Mistaking for a causal relation the intellectual connection observable between serial phenomena, they [physicists who are materialists] are unable to perceive any difference between disorder and the free, independent, and self-possessed action of a superior mind, and call mysticism, even a passing allusion to the existence of an immaterial principle in animals, which they acknowledge themselves in man... It is further... plain that the laws which may explain the phenomena of the material world, in contradistinction from the organic, cannot be considered as accounting for the existence of living beings, even though these have a material body, unless it be actually shown that the action of these laws implies by their very nature the production of such beings.

Note:

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'tracing back' is the Romantic linear method of both biology and psychology in the 19th century - the method of Wordsworth and Coleridge, for example. Towards the end of the century it becomes obsessive, a manic hunt for origins, first causes, teleological purpose, proofs of Almighty Intellect, and so on. This occurs in parallel with those changes in linear investigation, teleology and scientific method we recognize in Minkowski, Heisenberg, Einstein, Wittgenstein and Korzybski. It is Wittgenstein who relieves Bishop Berkeley's 'ideal connection in the mind of the Creator' - to use Agassiz's phrasing of its Aristotelian singularity.

Darwin, Freud, Marx and Frazer have a common manic impulse: to construct a model of men in society which appears as the visible selection of evidence to maintain their desire for a particular kind of ordering of energy. In each case an original scene is central to their dramas, to which everything is to be 'traced back'.

Here in Agassiz the "Almighty Intellect" is the origin of the drama, the invisible cause of visible action and invisible action, the "premeditating" cause of "creation": the terms are not those of science but of desire, not knowledge but character. "The laws of matter" presuppose other laws for "the wonders of the universe". "God" is an alternative to "physical forces" - that is, an alternative theory of force or "inevitable destiny". But this is only a tautological set of terms indicating a psychological inclination.

Agassiz requires proof that "the laws of matter", that is the physical or natural sciences, are an action which produces "living beings". This assumes that "matter" and "living being" are different structures; since this is not so, his requirement has become even more of a psychological imposition than it was in 1857.

Kenneth Burke: The Philosophy of Literary Forms - Studies in Symbolic Action (1941)

the five term structure of act, scene, agent, agency, purpose: "a vocabulary, or set of coordinates, that serves best for the integration of all phenomena studies by the social sciences...the

logical alternative to the treatment of human acts and relations in terms of the mechanistic metaphor (stimulus, response, and the conditioned reflex)...mechanistic considerations need not be excluded from such a perspective, but take their part in it, as a statement about the predisposing structure of the ground or scene upon which the drama is enacted.

('Ritual Drama as Hub', Terms for Order, ed. S.E. Hyman, 1964)

P.B. Medawar: The Art of the Soluble (1967)

Today we realize that philosophers devise Systems because it gives tham a nice warm comfortable feeling inside; it is something done primarily for their benefit, not for ours.

P.B. Medawar: Induction and Intuition in Scientific Thought (1969)

the task of scientific methodology is to piece together an account of what scientists actually $\underline{do}_{\bullet \bullet \bullet}$

Einstein in 1935: 'On the Method of Theoretical Physics' (in The World as I See It):

If you want to find out anything from theoretical physicists about the methods they use, I advise you to stick closely to one principle: don't listen to their words, fix your attention on their deeds.

Buckminster Fuller: "Total Thinking" (Ideas and Integrities, 1963); written at Black Mountain College in 1949.

Man, in degrees beyond all other creatures known to him, consciously participates - albeit meagrely - in the selective mutations and accelerations of his own evolution. This is accomplished as a subordinate modification and a component function of his sum total relative dynamic equilibrium as he speeds within the comprehensive and complex interactions of the universe (which he alludes to locally as environment).

As no energy may be lost of universe, and as all parts of universe act, theoretically, upon all other parts, man may accomplish modification of his particular evolution only by a relative modification of the aspects of universe. The picture is of universe as a kaleidoscope of sum-total symmetry only, the relative aspects of which may be dynamically and infinitely recorded without exemption of, or addition to, the component totality. Every shift (in the energy balance accomplished by man at earth's crust) affects all universe. Though fantastic, this is the scientific truth...

Man has been lacking in comprehensive disciplines and the developed ability to synthesize, essentially because of the bewildering arrays of complex behaviour items of natural phenomena. Man shows synergic re-genius inferior to Nature's regeneration...

...general behaviour laws of the energetic universe, whose interactions in turn become subject to increasingly reliable predictions by man.

Both the frame of reference and the observed are in obvious continual motion and persist as individually composite dynamic continuities...the whole dynamic assemblage...this schematically kinetic tapestry is the advanced concept of relativity - now, at last, popukarly significant, because pivotal to the everywhere severe worldwide reorientation of all man's everyday affairs from a static to an a priori dynamic frame of reference. The reorientation is severe because it is more than an uprooting. The realization of relativity spontaneously evokes a springing, to dive from a then vanishing springboard into an infinite dynamic sea where man must learn to swim tirelessly, naturally, before he sinks, but only because what he used to think was that he ought to "sink" rather than be attracted by dominant neighbours...

If there is no inherent "down" in the universe, man cannot sink.

This is not a semantic abstraction. What did man mean when he said, "Up"?...

Wittgenstein: Tractatus

- 2.013. Everything is, as it were, in space of possible atomic facts. I can think of this space as empty, but not of the thing without the space.
- 2.0131. A spatial object must lie in infinite space. (A point in space is a place for an argument).

SERIALISM

Schoenberg: "Composition with Twelve Tones" (Style and Idea, 1950) 1923

The unity of musical space demands an absolute and unitary perception. In this space...there is no absolute down, no right or left, forward or backward. Every musical configuration, every movement of tomes has to be comprehended primarily as a mutual relation of sounds, of oscillating vibrations, appearing at different places and times. To the imaginative and creative faculty, relations in the material sphere are as independent from directions or planes as material objects are, in their sphere, to our perceptive faculties.

(Note: Pierre Boulez - Polyphony X, etc.: works of discontinuity, structured as an implied or actual circularity, without necessary succession, beginning or end which are fixed. Similar works by Stockhausen (e.g. Zyklus) and the music of Xenakis; the method of successive notes intended to be comprehended as an instance of musical space-time acoustic in the music of Messiaen.)

C.H.H. Parry: "Harmony" (article in the 1906 Grove's Dictionary - quoted by Peter Yates, Twentieth Century Music, 1967)

Finally, everything is admissible which is intellectually verifiable, and what is inadmissible is so relatively only... Harmony is the mesult of combined melodies, through the treatment of the progressions of which the limits of combination become practically co-extensive with the number of notes in the musical system.

(Note: a principle in music, contemporary with the scientific and philosophic changes of relativity, which implies that the field of force of all sounds and silence is the system.)

William C. Seitz: The Art of Assemblage (1961)

Works which are "predominantly assembled rather than painted, drawn, modelled, or carved...entirely or in part, their constituent elements are performed natural or manufactured materials, objects, or fragments not intended as art materials.

"Readymade" assemblages: "portions removed from the everyday environment without alteration, and presented 'on a plane apparently not suited to them' for a special kind of examination".

(the quotation is from Max Ernst)

(Note: the works involved include - Picasso's Still Life with Caning, May 1912; Mallarme's Un Coup de dès jamais n'abolie le hasard, 1887; Apollinaire's defence of collages in The Cubist Painters, 1913; Marinetti's "words at liberty" in his May 1912 manifesto; Boccioni's Fusion of Head and a Window, 1911 or 12; dadaism - 6afé Voltaire, Zurich, 1916 - the combination of accident, foolery, anti-visual convention tranquillity, shock, discovery of beauty and value in the 'distasteful' and'valueless'; Breton's 1924 surrealist manifesto - the recourse to "pure psychic automatism"; etc.)

Note: relationship between A.N. Whitehead's "prehension" - the way objects and planes etc. may be together - and Gestalt psychology: the word means literally 'form', 'shape' or 'figure' - used in Germnay c. 1890 by Charles von Ehrenfels: basis of the school of psychology associated with Koffka and Köhler - the whole greater than the sum of the parts, and each element altered by its participation in relational unity. Objects in an environment is a Gestalt.

e.g. Lautréamont's "convulsive" image of "the chance encounter of a sewing machine and an umbrella on a dissecting table" (Les Chants de Maldoror; 1874) as a severa de la manufacture de la man

Max Ernst: Beyond Painting, 1948 - "the fortuitous encounter upon a non-suitable plane of two mutually distant realities."

Allen Kaprow: "Paintings, Environment, and Happenings" [ed. Michael Kirby: Happening, 1965] 41777555 = MOBILE P121-016m

a quite clear-headed decision to abandon craftmanship and permanence...

the use of obviously perishable media such as newspapers, string, adhesive tape, growing grass or real food [so that] no one can mistake the fact that the work will pass into dust or garbage quickly...

Jacques Ellul: The Technological Society (1954) [trans 1964] - chapter 2: "The Characterology of Technique".

Technique: "any complex of standardized means for attaining a predetermined result" which "converts spontaneous and unreflective behaviour into behaviour that is deliberate and rationalized", and which is concerned with "the immediate consequences of setting standardized devices into motion."

He who maintains that he can escape [technique] is either a hypocrite or unconscious. The autonomy of technique forbids the man of today

to choose his destiny... It is not a kind of neutral matter, with no direction, quality or structure. It is a power endowed with its own peculiar force. It refracts in its own specific sense the wills which make use of it and the ends purposed for it... The second consequence of technical autonomy is that it renders technique at once sacrilegious and sacred. (Sacrilegious is not used here in the theological but the sociological sense)...

Ellul uses terms like: "a material but also a spiritual world", Forces "unknown and perhaps unknowable", "phenomena...which man interprets as magical"; and "Jung has shown that it is catastrophic to make superficially clear what is hidden in man's innermost depths".

Man cannot live without a sense of the secret. The psychoanalysts agree on this point. But the invasion of technique desacralizes the world in which man is called upon to live. For technique nothing is sacred, there is no mystery, no taboo. Autonomy makes this so. Technique does not accept the existence of rules outside itself, or of any norm. Still less will it accept any judgment upon it. As a consequence, no matter where it penetrates, what it does is permitted, lawfully justified...

The sacred is what man decides unconsciously to respect. The taboo becomes compelling from a social standpoint, but there is always a factor of adoration and respect which does not derive from compulsion and fear... The mysterious [from the point of view of technique] is merely that which has not yet been technicized.

Technique advocates the entire remaking of life and its framework because they have been badly made. Since heredity is full of chance, technique proposes to suppress it so as to engender the kind of man necessary for its ideal service. The creation of the ideal man will soon be a simple technical operation. It is no longer necessary to rely on the chances of the family or on the personal vigour of what is called virtue. Applied biogenetics is an obvious point at which techniques desacralizes; but we must not forget psycho-analysis, which holds that dreams, visions, and the psychic life in general are nothing more than objects... Crash programmes, particularly in the United States, are attempting to reconstruct the soil which massive exploitation and the use of chemical fertilizers have impaired. We shall soon discover the functions of chlorophyll and thus entirely transform the conditions of life. Recent investigations in electronic techniques applied to biology have emphasized the importance of DNA and will possibly result in the discovery of the link between the living and the non-living.

Nothing belongs any longer to the realm of the gods or the supernatural. The individual who lives in the technical milieu knows very well that there is nothing spiritual anywhere. But man cannot live without the sacred. He therefore transfers his sense of the sacred to the very thing which has destroyed its former object: to technique itself...the technicians of the bourgeoisie are without doubt the ones most powerfully taken with it. For them, technique is sacred, since they have no reason to feel a passion for it. Technical men are always disconcerted when one asks them the motives of their faith. No. They do not expect to be liberated; they expect nothing, yet they sacrifice themselves and devote their lives with frenzy to the development of industrial plants and the organization

of banks. The happiness of human and suchlike nonsense are the commonplaces they allege. But these are no longer of any service even as justification, and they certainly have nothing to do with man's passion for technique...

Note:

The centre of study at this point should be an analysis of taboo as a term for that area where boundaries or limits are sensed to be crossed: we need, first, the description of transgression that Georges Bataille offers in L'Eroticisme (1957; trans. 1962 as Death and Sensuality), and, secondly, a description of that erotic condition we call a power situation, a relationship of domination and submission of any kind. In addition, without the factor of orgasm, no model of the human can even begin to be significant; orgy is central to sociology, and used to be central to religion. Bataille pairs "work" and "the sacred" as twin contraries - in distant opposition to the Protestant ethic promoters and the Marxists who identified them and thereby wrecked our lives in the West.

Bataille's "work" is better considered as "labour" as Hannah Arendt defines it in The Human Condition. But his definitions of sacred as the world of eroticism, violence, eternity, 'The All', is sufficiently complete because he recognizes the desire for explosion, for the total breaking of limits, the bursting of the outline, the skin, the whole into another whole, the liberation or transcendence which is the most urgently necessary action in life: which is why it is central to the writings and practice of Wilhelm Reich, the major psychologist of the twentieth century.

These factors have, in turn, to be discussed as a necessary assault on the culture and law of the coercive society - whether capitalist or communist - what Ed Sanders, poet and leader of the Fugs, calls 'total assault on culture'. From Bataille we learn that because eroticism is an assertion of interior bodily continuity and wholeness, the sacred infers necessary violence to one's nature and is a transgression, and that the licentious - a social stability inversion - is nearer to the sacral than reason: he refers explicitly to the cannibalism of Christian communion rites: 'this is my body, this is my blood'.

Ellul is correct: the sacral is the opposite of technique in his sense. But it is in a deeper sense the alternative to labour and the reduction of a man to a thing, an instrument, part of the labour force for productivity, a social unity, a tool handling tools. To insist that human dignity comes from eroticism and not the reason which claims its origin in labour and technique, is to refuse western technological culture. Therefore our western societies oppose sexuality and permit those heroes and arts which do not radically endanger the labour-technique-cannibalism structure called culture or even civilization.

What we are concerned with, then, is a "liberatory technology".

Lewis Herber: Towards a Liberatory Technology (Anarchy 78, August 1967)

What is the liberatory potential of modern technology, both materially and spiritually? What tendencies, if any, are reshaping the machine for use in an organic, man - oriented society?... how can the new technology and resources be used in an ecological manner, that is, to promote the balance of nature, the full, lasting development of natural regions, and the creation of organic, humanistic communities?

Herber therefore criticizes Ellul's assumption that technology and technological modes of thought necessarily enslave men, that "the debasement of man by the machine is intrinsic to the development of technology", and that there is nothing to be done but resign before this condition of "social fatalism".

an organic mode of life, deprived of its inorganic, technological components...would be as non-functional as a man deprived of his skeleton.

Note:

In place of the Christian and Darwinian systems of conflict (body-soul dualism and natural selection competitiveness) Herber uses "mutual aid" as his basic structure: that is the work of the nineteenth century historical biologist Petr Kropotkin, whose Mutual Aid appeared in English in 1902.

Man cooperating with man is also central to early Marxism: in The German Ideology of 1845-46, Marx and Engels wrote:

A certain mode of production, or industrial stage, is always combined with a certain mode of cooperation. or social stage... The animal has no 'relations' with anything, cannot have any... Only in community with others has each individual the means of cultivating his gifts in all directions; only in the community, therefore, is personal freedom possible.

Theodor Adorno: Negative Dialectic (1966)

The immanent quality of a thought, what it manifests in the way of power, resistance, imagination, union of criticism with its opposite, represents, if not an <u>index veri</u>, at any rate a sign post.

i.e. the usefulness of a thought - in the present case "metaphysical philosophy" which is neither aesthetics nor "psychological wishfulfilment".

Metaphysics [represents' as human possibility what theology imposes upon men and thereby degrades.

Note:

Speculative thought points towards a possible future, and a transcendence of utopian dreams and subhuman reality. Gods, kings, priests and heroes are projections of the human need in certain past and, unfortunately, present societies to imagine transcendent possibilities in man - that which caused Shelley to take the myth of Prometheus as a basis for his revolutionary anti-authoritarian poem in 1818 20, and Marx to identify with Prometheus, "the holiest saint and martyr in the philosophical calender", and to quote Aeschylus in the preface to his doctoral thesis on philosophies of nature in 1841:

In simple words, I hate the pack of gods.

In the 1960s Charles Olson and Robert Duncan create epic structures, openended Works (in the sense of the alchemists) which employ gods and myths as human creation in a human universe, as Blake did in <u>Jerusalem</u> in 1820, in order to found the human city at last.

Hermeneutics: "the art or science of interpretation... commonly distinguished

from exegesis or practical exposition

Heuristic: "serving to find out... applied to a system of education

under which the pupil is trained to find out things for himself

Heuretics: "the branch of logic which treats of the art of discovery

or invention".

Theodor Adorno: Negative Dialectic

(Ordo: an ecclesiastical term for a book of rubrics)

The autonomous Beethoven is more metaphysical than Bach's ordo, hence truer. Subjectively liberated and metaphysical experience converge in humanity. Every expression of hope - more powerfully irradiated by the great works of art, even in the ages of silence, than by the traditional theological texts - is configurated with that of humanity...

(c.f. George Lichtheim, 'From Marx to Hegel: reflections on Georg Lukacs, T.W. Adorno, and Herbert Marcuse', TriQuarterly No.12, Spring 1968).

Alain Robbe-Grillet: For a New Novel (1963, trans. 1965).

Instead of this universe of 'signification' (psychological, social, functional), we must try, then, to construct a world both more solid and more immediate. Let it be first of all by their presence that objects and gestures establish themselves, and let this presence continue to prevail over whatever explanatory theory that may try to enclose them in a system of reference whether emotional, sociological, Freudian or metaphysical... the tyranny of signification...

We had thought to control the world around us by assigning it a meaning, and the entire art of the novel, in particular, seemed dedicated to this enterprise... There is today, in fact, a new element that separates us radically this time from Balzac as from Gide or from Mme. de la Fayette: it is the destitution of the old myths of 'depth'.

We know that the whole literature of the novel was based on these myths, and on them alone. The writer's traditional role consisted in excavating Nature, in burrowing deeper and deeper to reach some ever more intimate strata, in finally unearthing some fragment of a disconcerting secret... Thus the word functioned as a trap in which the writer captured the universe in order to hand it over to society.

The revolution which has occurred is in kind: not only do we no longer consider the world as our own, our private property, designed according to our needs and readily domesticated, but we no longer even believe in its 'depth'. While essentialist conceptions of man met their destruction, the notion of 'condition' henceforth replacing that of 'nature', the <u>surface</u> of things has ceased to be for us the mask of their heart, a sentiment that led to every kind of metaphysical transcendence.

Note:

the end of the nineteenth century 'detection' drama in novels and related actions - the end of the vocabulary of character, atmosphere, form, content, message, narrative ability, story, etc..

the end of 'tragedy' as a viable concept - see Karl Jaspers: Tragedy is not Enough, and the following passage from Roland Barthes which Robbe-Grillet quotes:

Tragedy is merely a means of 'recovering' human misery, of subsuming and thereby justifying it in the form of a necessity, a wisdom, or a purification: to refuse this recuperation and to investigate the techniques of not treacherously succumbing to it (nothing is more insidious than tragedy) is today a necessary enterprise.

Note:

it is precisely here that the systematics of social authority, religion, psychology, and literature meet in a common disgrace which must be refused.

On the pretext that man can achieve only a subjective knowledge of the world, humanism decides to elect man the justification of everything. A true bridge of souls thrown between man and things, the humanist outlook is pre-eminently a pledge of solidarity.

In the literary realm, the expression of this solidarity appears chiefly as the investigation, worked up into a system, of analogical relations.

Metaphor, as a matter of fact, is never an innocent figure of speech.

Note:

Metaphor is "anthropomorphic analogy" which implies an entire metaphysical system, - this is the point of T.S. Eliot's pathetic panic over "the dissociation of sensibility" in the seventeenth century: that the Christian universalism which enabled metaphors to be made, would be slowly disintegrate and replaced by a human universe.

It is no accident if Nature precisely - mineral, animal, vegetable Nature - is first clogged with an anthropomorphic vocabulary. This Nature - mountain, sea, forest, desert, valley - is simultaneously our model and our heart. It is, at the same time, within us and around us. It is neither provisional nor contingent. It encrusts, judges us, and ensures our salvation.

To reject our so-called 'nature' and the vocabulary which perpetuates its myth, to propose objects as purely external and superficial, is not - as has been claimed - to deny man; but it is to reject the 'pananthropic' notion contained in traditional humanism, and probably in all humanism. It is no more in the last analysis than to lay claim, quite logically, to my freedom.

... All analogies are just as dangerous [as the anthropomorphic analogies, mental or visceral]. And perhaps the most dangerous ones of all are the most secret, those in which man is not named...The idea of a nature leads infallibly to that of a nature common to all things, that is, a <u>superior</u> or <u>higher</u> nature. The idea of an interiority always leads to the idea of a transcendence...

Tragedy may be defined, here, as an attempt to 'recover' the distance which exists between man and things as a new value, it would be then a test, an ordeal in which victory would consist in being vanquished. Tragedy therefore appears as the last invention of humanism to permit nothing to escape...

Note:

Robbe-Grillet's position now resembles that of the last propositions of Wittgenstein's Tractatus: silence -

of concluding that there is no one there—which could be a pure and simple observation, dated and localized in space and time — I decide to act as if there were someone there, but someone who, for one reason or another, will not answer. The silence which follows my outcry is henceforth no longer a true silence; it is charged with a content, a meaning, a d.th, a soul — which immediately sends me back to my own...

According to the habitual process, my solitude is then no longer an accidental momentary datum of my existence. It becomes part of me, of the entire world, of all men: it is our nature, once again. It is a solitude forever...

Note:

it is this 'alienated consciousness' which produces the tragic sense of life, and it is fatal -

The tragic sense of life never seeks to suppress the distances: it multiplies them, on the contrary at will. Distance between man and other men, distance between man and himself, between man and the world, between the world and itself - nothing remains intact: everything is lacerated, fissured, divided, displaced... Everything is contaminated.

Note:

the modes of 'absurdity' and 'nausea' - Camus and Sartre - are simply "new forms of the fatal complicity",

The systematic tragedification of the universe I live in is often the result of deliberate intention. This suffices to cast a doubt on any proposition tending to posit tragedy as natural and definitive...

Pablo Neruda: "Unidad" (Residencia en la Tierra I, 1933)

Hay algo denso, unido, sentado en el fondo, repetiendo su numéro, su senal idéntica. Como se nota que las piedras han tocado el tiempo, en su fina materia hay olor e edad y el agua que trae el mar, de sal y sueno.

Me rodea una misma cosa, un solo movimento: ...

... Pienso, aislando en lo extremo de las estaciones, central, rodeando de geografia silenciosa: una temperatura parcial cae del cielo, un extremo imperio de confusas unidades se reune rodeandome.

(There is something dense, at one, struck in the ground of being repeats its number, its redundant signal.

As one notes the touch of time on stones in its delicate matter there is the scent of age and the water the sea brings, of salt and dream.

One semblance circles me, a single movement...

... Immediate, weaned among far flung seasons yet mean meridian on the map of silence: a friendly temperature falls from the sky, a radical empire of mingled unities draws itself together, surrounding me.

trans. Nathaniel Tarn).

C. Wright Mills:

Promethean Man turns softly inward.....

Ian McHarg - Design with Nature (1969)

Note:

the challenge to that attitude which holds that man must be supreme over nature and insist on a value system which asserts conquest over nature rather than unity with it, and asserts exploitation and a philosophy of final reward.

The first lesson needed for life here: that the earth is a creative process, that man has a unique creative role, that all physical and living processes are arresting energy on its path to entropy and, in so doing, are creating a self-perpetuating and evolving system. Man shares this process; it contains his history. He is here now in this phenomenal universe with his indispensable partners in survival and creation. This is the central lesson of the workman's code in the manual of the good steward.

Robert Creeley:

"life" begins to "end" about [what] "form"

(epigraph to Fathar one, 1970)

G. Spencer Brown: Laws of Form (1969)

The theme of this book is that a universe comes into being when a space is severed or taken apart. The skin of a living organism cuts off an outside from an inside. So does the circumference of a circle in a plane. By tracing

the way to represent such a severance, we can begin to reconstruct, with an accuracy and coverage that appear almost uncanny, the basic forms underlying linguistic, mathematical, physical, and biological science, and can begin to see how the familiar laws of our own experience follow inexorably from the original act of severance. The act is itself already remembered, even if unconsciously, as our first attempt to distinguish different things in a world where, in the first place, the boundaries can be drawn anywhere we please. At this stage the universe cannot be distinguished from how we act upon it, and the world may seem like shifting sand beneath our feet.

Although all forms, and thus all universes, are possible, and any particular form is mutable, it becomes evident that the laws relating such forms are the same in any universe. It is this sameness, the idea that we can find a reality which is independent of how the universe actually appears, that lends such fascination to the study of mathematics. That mathematics, in common with other art forms, can lead us beyond ordinary existence, and can show us something of the structure in which all creation hangs together, is no new idea....

Unlike more superficial forms of expertise, mathematics is a way of saying less and less about more and more. A mathematical text is thus not an end in itself, but a key to a world beyond the compass of ordinary description.

An initial exploration of such a world is usually undertaken in the company of an experienced guide...

...what I am trying to say has nothing to do with me, or anyone else, at the personal level. It, as it were, records itself and, whatever the faults in the record, that which is so recorded is not a matter of opinion.

Note:

G. Spencer Brown's prefatory ideogram is the Teo Te Ching., and the action of his calculus is related to Wittgenstein's state beyond speech: whereof one cannot speak thereof one must be silent. It is a matter of nonverbal experience, the calculus of wholes which are not complete and are not linear -

All the constellar principles by which we navigate our journeys out from and in to the form spring from the ultimate reducibility of numbers and voidability of relations. It is only by arresting or fixing the use of these principles at some stage that we manage to maintain a universe in any form at all, and our understanding of such a universe comes not from discovering its present appearance, but in remembering what we originally did to bring it all about...

The world as described by the physicist...consists of a number of fundamental particles which, if shot through their own space, appear as waves called electromagnetic which it is convenient, by Occam's razor, to consider as travelling through space with a standard velocity. All these appear bound by certain natural laws which indicate the form of their relationship.

Now the physicist himself, who describes all this, is, in his own account, himself constructed of it...

Thus we cannot escape the fact that the world we know is constructed in order (and thus in such a way as to be able) to see itself.

This is indeed amazing.

Not so much in view of what it sees, although this may appear fantastic enough, but in respect of the fact that it can see at all.

But in order to do so, evidently it must first cut itself up into at least one state which sees, and at least one other state which is seen. In this severed and mutilated condition, whatever it sees is only partially itself....

It seems hard to find an acceptable answer to the question of how or why the world conceives a desire, and discovers an ability, to see itself, and appears to suffer process. That it does, is sometimes called the original mystery. Perhaps, in view of the form in which we presently take ourselves to exist, the mystery arises from our insistence on framing a question where there is, in reality, nothing to question. However it may appear, if such desire, ability, and sufference be granted, the state or condition that arises an an outcome is, according to the laws here formulated, absolutely unavoidable. In this respect, at least, there is no mystery. We, as universal representatives, can record universal law far enough to say

and so on, and so on you will eventually construct the universe, in every detail and potentiality, as you know it now; but then again, what you will construct will not be all, for by the time you will have reached what now is, the universe will have expanded into a new order to contain what will then be.

In this sense, in respect of its own information, the universe <u>must</u> expand to escape the telescopes through which we, who are it, are trying to capture it, which is us. The snake eats itself...

universe - unus / one vertere/turn that is: appearance a particularity of visibility which is partial and for which we pay a price...

The journey of the calculus that is unnecessary and inevitable.

A.N. Whitehead: Science and the Modern World (1925)

We can be content with a provisional realism in which nature is conceived as a complex of prehensive unifications. Space and time exhibit the general scheme of interlocked relations of these prehensions A prehension is a process of unifying. Accordingly, nature is a process of expansive development, necessarily transitional from prehension to prehension...

Nature is a structure of evolving processes. It is nonsense to ask if the colour red is real. The colour red is ingredient in the process of realization. The realities of nature are the prehensions of nature, that is to say, the events in nature...

Space-time is nothing else than a system of pulling together of assemblages into unities. But the word <u>event</u> just means one of these spatio-temporal unities. Accordingly, it may be used instead of the term 'prehension' as meaning the thing prehended.

Note:

an event "mirrors within itself the modes of its contemporaries", "has a past" and "a future".

... our own psychological field [is]

the self knowledge of our bodily event. I mean the total event, and not the inspection of the details of the body...this total bodily event is on the same level as all other events, except for an unusual complexity and stability of inherent pattern....

It is the defect of the eighteenth century scientific scheme that it provides none of the elements which compose the immediate psychological experiences of mankind. Nor does it provide any elementary trace of the organic unity of a whole from which the organic unities of electrons, protons, molecules, and living bodies can emerge. According to that scheme, there is no reason in the nature of things why portions of material should have any physical relations to each other...

The concept of the order of nature is bound up with the concept of nature as the locus of organisms in process of development.

Modes of Thought (1938)

There are perspectives of the universe to which morality is irrelevant, to which logic is irrelevant, to which religion is irrelevant, to which art is irrelevant. By this false limitation the activity expressing the ultimate aim infused into the process of nature has been trivialized into the guardianship of mores, or of rules of thought, or of mystic sentiment, or of aesthetic enjoyment...

The word 'together', and indeed all words expressive of conjunction in general, without definite specification, are very ambiguous. For example, the little word 'and' is a nest of ambiguity...

Note: Whitehead defines process as an interweaving of data, form, transition and issue. Fact is process discerned in "the infinitude of the connected universe"

We experience more than we can analyse. For we experience the universe, and we analyse in our consciousness a minute selection of its details.

Nature is a theatre for the inter-relations of activities... In the place of the Aristotelian notion of the procession of forms, [science] has substituted the notion of the forms of process. It has thus swept away space and matter, and has substituted the study of the internal relations within a complex state of activity. This complex state is one sanse a unity...

The process of self-creation is the transformation of the potential into the actual, and the fact of such transformation includes the immediacy of self-enjoyment...the creative fusion [of data and potentialities]... This is the doctrine of the creative advance whereby it belongs to the essence of the universe, that it passes into the future. It is nonsense to conceive of nature as a static fact, even for an instant devoid of duration. There is no nature apart from transition, and there is no transition apart from temporal duration. This is the reason why the notion of an instant of time, conceived as a primary simple fact, is nonsense...

The aim is at that complex of feeling which is the enjoyment of those data in that way. The aim is at the enjoyment belonging to the process.

Note:

Bodily reference is primary. The Cartesian dualism is a disastrous and inaccurate separation of body and 'mind'. Laws of nature are "average", regulative conditions". No aim in nature is disclosed.

Norbert Wiener: Cybernetics (1948)

Note:

Marshall McLuhan's assertion that computers are an extension of the human nervous system is accurate, and born out by J.Z. Young's A Model of the Brain, 1964. The topological make-up of the nervous system is the basic investigation here.

The central nervous system no longer appears as a self-contained organ, receiving imputs from the senses and discharging into the muscles. On the contrary, some of its most characteristic activities are inexplicable only as circular processes, emerging from the nervous system into the muscles, and re-entering the nervous system through the sense organs, whether they be proprioceptors or organs of the special senses. This seemed to us to mark a new step in the study of that part of neurophysiology which concerns not solely the elementary processes of nerves and synapses but the performance of the nervous system as an integrated whole.

- ... The feedback of voluntary activity is of this nature. We do not will the motions of certain muscles, and indeed we generally do not know which muscles are moved to accomplish a given task; we will, say, to pick up a cigarette. Our motion is regulated by some measure of the amount by which it has not yet been accomplished.
- ...It is only in the large community, where the Lords of Things as They Are protect themselves from hunger by wealth, from public opinion by privacy and anonymity, from private criticism by the laws of libel and the possession of the means of communication, that ruthlessness can reach its most sublime levels. Of all these anti-homeostatic factors in society, the control of the means of communication is the most effective and most important.

Note:

the aim is therefore to enjoy the homeostatic body in a homeostatic society. c.f. C. Daly King: The States of Human Consciousness, 1963; Kenneth Walker: A Study of Gurdjieff's Teaching, 1957; Thomas Pynchon: The Crying of Lot 49. 1966; Carlos Castaneda: The Teachings of Don Juan: A Yaqui Way of Knowledge, 1968.

Thomas Landon Thorson: Biopolitics (1970)

It is a confusion of the profoundest kind, but one which pervades social science, that modern, civilized Western man is the norm and that primitive or underdeveloped man is the deviant case. And its a confusion that flows directly from the failure to take time seriously...

The question we must face squarely if we wish to make scientific sense out of man and his activities is this: Does it make more sense to understand man as a biological phenomenon with all that implies, or to try to fit human behaviour to the prediction-generalization model of nineteenth-century physics?