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Video Art

Jan Debbaut

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The Metasoftware of Video

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Mark Kidel

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Stuart Marshall

**Video Art, The Imaginary
and the Parole Vide**

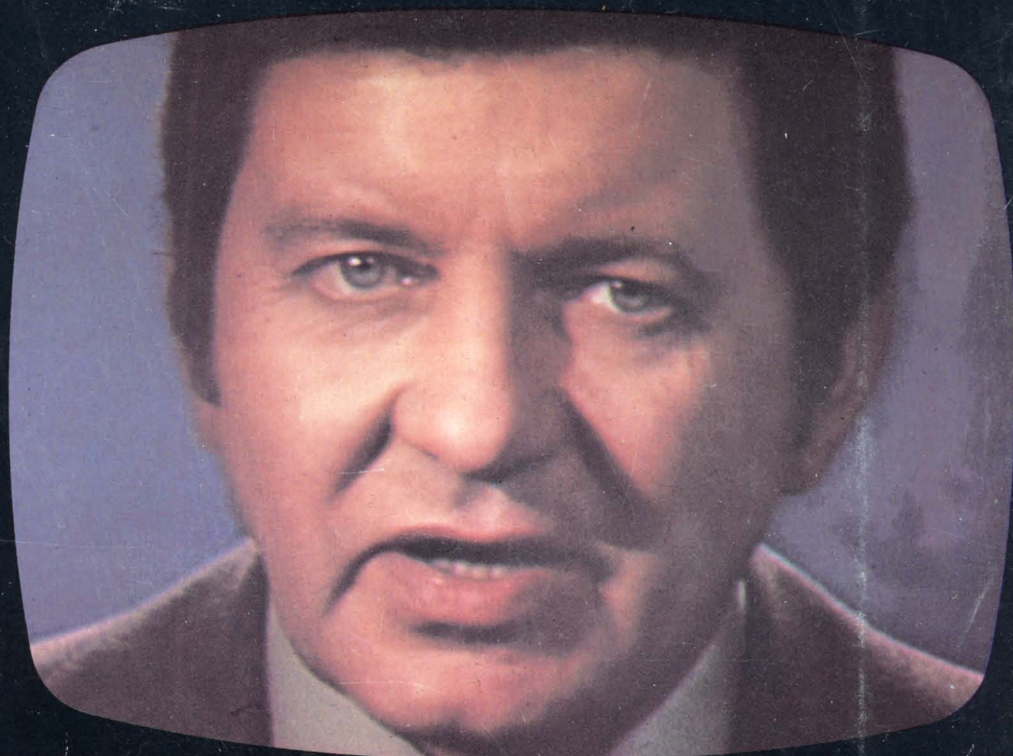
Hein Reedijk

Video in the Netherlands

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**Artist's Television
in the US**

Contributions from: Barnard,
Bauermeister, Byrne, Campus,
Hall, Hoey, Krikorian, Lange,
Leggett, Marshall, Partridge



THE METASOFTWARE OF VIDEO

Sue Hall and John Hopkins

Abstract

Video exists. Therefore, the next thing to ask is what one can do with it. All the things one can do with it belong to a set to which we give the name 'communications'. There are a number of theories already in existence about communication which could be applied to video, and there should be feedback between experiments in video and experiments in communications theory. No general theory of communication has been formulated yet, and general systems theory and cybernetics may help in the development of such a theory. The function of the artist is both communication and, more importantly, metacommunication. These are notes from a project in progress to investigate and develop a general theory of the media, begun in 1973 and continuing.



Ture Sjölander and Lars Weck *Painting of Synthesised Real Image of Mona Lisa* 1968 (illustrates feedback between video and other art forms).

VIDEO: b. 1956, Redwood City; Half-Life 50 yrs?

Video is very young in the sense that it is a mere dozen years since Nam June Paik began to be called a 'video artist'; and it was only in 1969 that the Portapak – basic means of the individual decentralisation of TV technology – was introduced into Europe following its development as an airborne reconnaissance device for the US military during the Vietnam war. Already video has a multiplicity of uses, and it is also clear that its full development has by no means been reached. In other words, we suppose that its 'true' nature as a communications tool is far from being completely explored. Decentralisation, flexibility, immediacy of playback, speed of light transmission, global transmission pathways, input to two of the senses – these are characteristics not yet shared by any other medium. Relative cheapness and simplicity of operation lead to the democratisation of the technology and a flowering of variety, just as in the past papyrus and the simplified script developed around the same time and led to new uses of writing, such as prophecy and poetry, as opposed to its old uses for taxes, military records and laws.

Since most of the possibilities are unexplored, now

is a fruitful time to examine this new medium. In our examination we should address ourselves to questions that arise from a consideration of communications in society at large. In this way, if there is any illumination to be gained from video it can be made available in the larger picture of communications as a whole.



Demonstration of 1/2-inch automatic video editing system prototype. Tape used to convey details to other video users. November 1974 (information gathering).

The Communications Approach

What distinguishes our approach from that of film culture commentators, for instance, is that it is a communications approach. So, we see video primarily as a communications medium which has an 'aesthetic' or 'expressive' component (or subset). This component is significant, but not in our opinion a dimension whose values exceed those of other dimensions. The most important description of the media including video is that they communicate.

We take the view that a work (of art, expression or other type of communication) only exists in its actual use, and not otherwise. A video tape or TV



Ben's arrest. Used as evidence in court, resulted in acquittal and established legal precedent for video tape as defence evidence. May 1974 (information gathering).

programme only realises its potential when it is exposed, communicated, distributed, experienced. When it sits on the shelf and gathers dust, it only exists in a mechanical and mundane sense in that it *could* be used. Although it is possible that at this moment masterpieces are being created which will later receive critical acclaim, it is not the job of media workers to create archives except as a spin-off. The statement that a work exists only in its showing/experiencing leads us immediately to a dynamic view of communication artefacts. The existence and value of a work may change and develop in time, according to the exposure it gets and the feedback or response that is stimulated.

The purpose of a general theory is (a) to enable all cases of communications activity to be analysed with the same basic set of criteria and (b) to enable predictions to be made. In the field of society-as-a-whole, a general theory of the media should enable the needs and views of all actors to be included. The set of actors includes all members of the population, and in the event that there is no clearly defined social and communications policy, the purpose of a general theory is to supply the conceptual tools for policies to be formulated.

Evidently, a theory of the media must cover the widest possible spectrum of cases of communication. Included must be, on the one hand, mass media and publishing, and on the other, continuous multi-way communication such as happens in a group of people engaged in a discussion, performance or interactive environment, and interpersonal activities such as telephone calls and making love. Mr T. Tomita (Ministry of Posts and Telecommunications, Japan), following an extensive survey of 30 different types of information flow in society, drew the distinction between personal and mass communication, and discovered that while personal communication was still increasing, mass communication reached saturation in Japan in 1972 and its unit effectiveness began to drop.¹ These results may well occur in all post-industrialised societies.



Private seminar on problem-solving. Professor Brian Lewis at Fantasy Factory. December 1974 (learning).

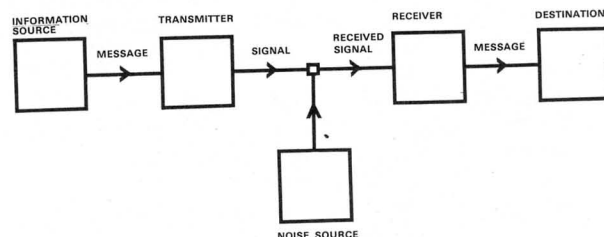
The theory must also look more closely at the meaning of response (or feedback); metaprogramme (motivation, intention, objective); actors involved, whether persons, organisations or a combination; and contexts in which the actors act and engage in communication. Take feedback, for example. This does not always mean, simply, a direct reply to the source or sender. In the case of broadcast TV, feedback may be perceived by an advertiser as increased sales; by a pop star as more fan mail or increased record sales; by a political party as more votes; by a TV station owner as higher ratings; by a government as reduction of oppositional 'public opinion' (remember the media campaign prior to the Common Market referendum?); and by a viewer as

'seeing oneself on TV' or having one's point of view accurately presented in a positive context.

Shannon and Weaver Reinstated

The work of Shannon and Weaver in the electrical engineering field, on which the design of telephone networks is now based, is described in the 1949 monograph *The Mathematical Theory of Communication*,² which laid the conceptual basis for much of the communications science that followed. Their schema included the concepts of transmitter, channel, noise, receiver; coding and decoding; redundancy; and Markovian/ergodic communication processes. Probably because of the power of their insight in posing a schema so universally applicable to one-way communication, their associated work and views have been overlooked by non-technical commentators. For example, Professor Dallas Smythe, Canadian Marxist and communications expert, in a recently published article,³ has described their 'linear theory of communications' as something to be 'transcended and disregarded'. It 'encapsulates the authoritarianism of capitalist hierarchical organisational modes . . . deriving from a misleading analogy of communication with transportation rather than exchange'.

In fact, Shannon and Weaver propounded a schema based on the view that time flows in one direction and that the transmission of information takes time. There is no reason why response cannot be viewed as a communication in reply to a prior communication, and in some sense, every outgoing communicative activity of sentient beings is in response to a pre-existing stimulus and set of conditions, both internal and external.



Shannon and Weaver's representation.

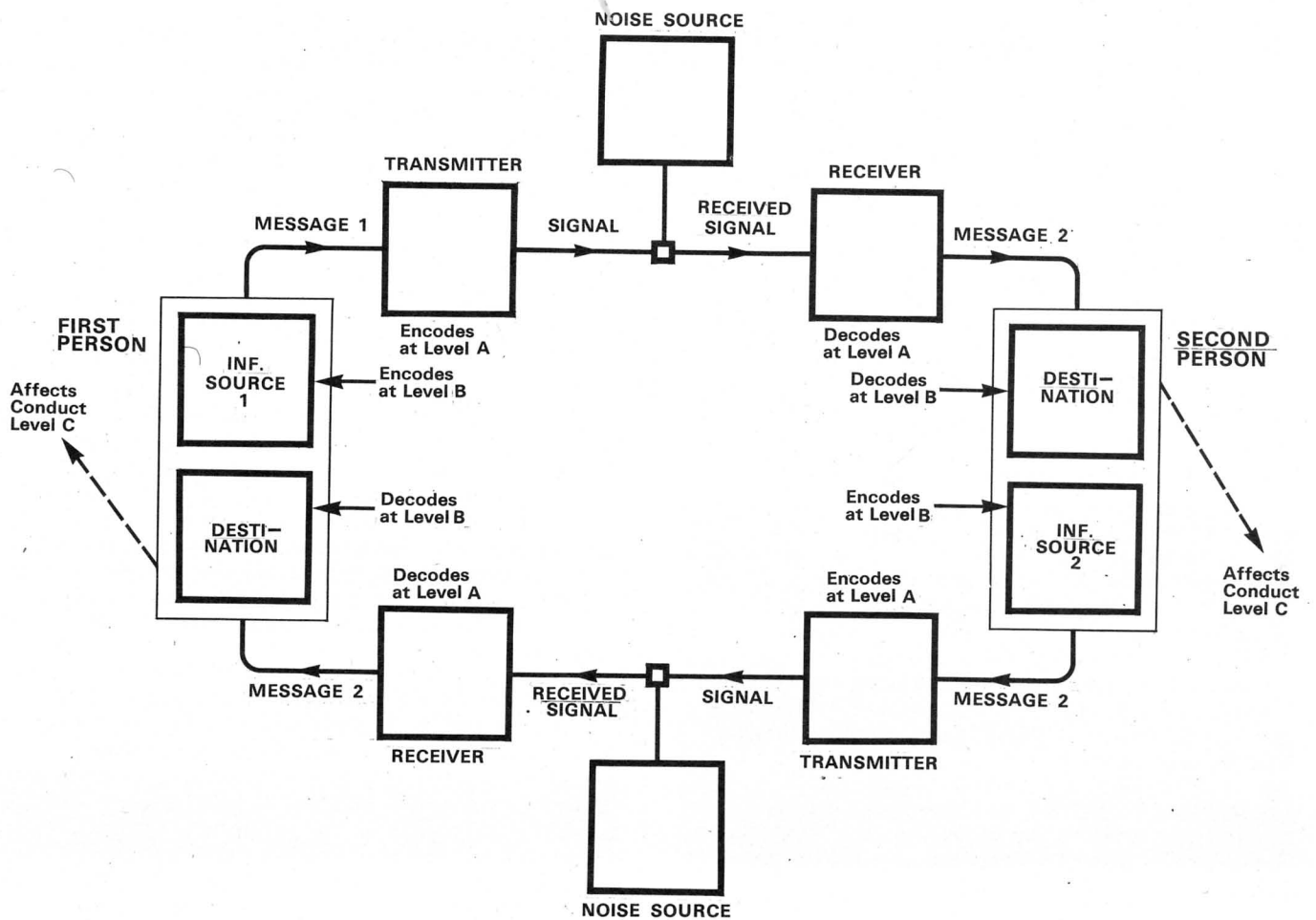
But Shannon and Weaver's contribution is remarkable in that they also proposed the conceptual division of communication into three levels. More precisely, they identified three levels at which noise is a problem:

LEVEL A. (Technical). In answer to the question: How accurately can the symbols of communication be transmitted?

LEVEL B. (Semantic). In answer to the question: How precisely do the transmitted symbols convey the desired meaning?

LEVEL C. (Effectiveness). In answer to the question: How effectively does the received meaning affect conduct in the desired way?

The division of communication into Technical, Semantic and Effectiveness levels is a conceptual tool of great power. We can see that, for instance, much of the 'debate on film culture' that exercises intellectual film critics and academics is concerned with Level B, in which are found semantic problems. In relation to these problems Shannon and Weaver have identified the need for a 'theory of meaning'. But community video is more concerned with the social results of the



Two-way communication. First person experiences message 2 as 'feedback' or 'response'.

use of video on Level C than with the niceties of expressiveness. Nam June Paik and Ture Sjölander, in their experiments with the twisting and bending of beams of electrons, can be seen as artists also working on Level A.

The idea that one can improve the flow of information through a system by acting on a part of it in isolation has no place in a dynamic model. An artist who is innovating on more than one level simultaneously, indicates an extension of creativity beyond conventional bounds.

General Systems Theory

A methodological principle for communications research propounded by Lasswell, 1948,⁴ defined: 'Who says what, to whom, by what means, and to what effect'. Raymond Williams, 1974,⁵ added 'to what purpose' in an attempt to humanise the principle. But this still falls short of what is required, because the emphasis remains on the producer/sender of communication, rather than on the system-as-a-whole of sender plus receiver, each of whom has needs, wants, world views and material conditions of life.

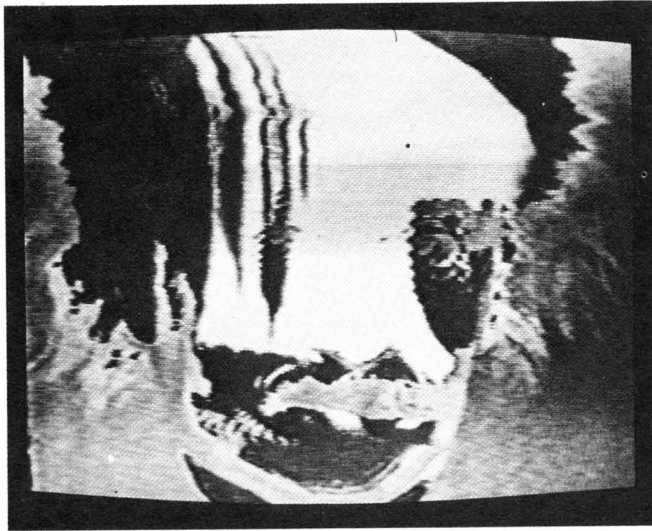
We have to go to General Systems Theory to find analytical tools of sufficient power to unravel the business of communications. This theory, initiated by L von Bertalanffy⁶ as a study of living systems, is still in its critical stages of development, and is in many respects a qualitative rather than a quantitative theory. Nevertheless, the analysis which can be brought to bear on communications is, in human terms, more developed than either that of Shannon and Weaver or Lasswell/Williams. General Systems Theory deals with open hierarchical systems, such as are found in living organisms and societal entities. These systems require a dynamic description and one which allows for change, development and alternative descriptions. Our own use of General Systems Theory has been greatly stimulated by the work of John F. C. Turner⁷ (MIT and the Architectural Association) in the

field of housing, and John J. Steele⁸ working in the fields of meta-anthropology and prehistory. In these descriptions, the actors exist in a dynamic relation with each other and their contexts. The interrelation of their contexts (including the material conditions of life), metaprogramme (see below) and expectations causes them to engage in activities which are intended to satisfy needs as perceived by the actors themselves. The activities result in achievements which in turn modify the metaprogrammes, act on the contexts and generate new expectations. This can be better understood as an ongoing, dynamic and cyclical process rather than a linear chain of events. Translated into communication terms, the actors (whether senders, receivers, financial backers, political manipulators, academics, art critics, domestic audiences, policy-makers) all have their own metaprogrammes which are their generalised bases for action.

Metaprogramme: a set of instructions, descriptions, and means of control of sets of programmes. 'Programmes' here means programmes of activity⁹. Many professional persons' metaprogrammes are 'accepted' and not examined, *eg* professional media workers are self-censoring because they would otherwise lose their jobs. Their communications include an a priori view of themselves and society which mostly goes unchallenged. Many media professionals' metaprogrammes are tailored to fit the hegemonic codes, *ie* the codes of the dominant power-holders in society. The content of communication is therefore, in addition to the explicit or denotative content, the transmission of a world-view which reveals the metaprogrammes. The reception of communication is subject to the recipient employing his/her metaprogramme to evaluate the communication received. (The same description applies equally to an ongoing dialogue – a one-way example is used for the purpose of analytical simplicity.)

Thus the codes of sender and receiver which form

the basis of, for example, Stuart Hall's contribution to media theory,¹⁰ or Barthes' to semiology¹¹ are seen to be implicit in the situation and identity of each individual, and what is more, to be never exactly the same to two individuals. This leads to a description in which the results of mass communications activities can be seen for the curious thing they really are. One set of persons puts together a programme according to implicit and explicit rules, satisfying the organisational metaprogrammes of the transmitting organisation (the TV station) and of the political power-holders (the government of the day). Politicians want continuation of their power and hence social stability. TV stations want audience ratings and therefore sell excitement, interest, and simply the stimulation of appetites for more of the same things. (There can evidently be occasional conflicts between these sets of metaprogrammes.) But the audiences, in



Erich Siegel *Einstine, Symphony of the Planets, Tomorrow Never Knows* 1968.

their millions, have their metaprogrammes. Are their needs being taken into account? What do *they* want, what do *they* think, what is *their* world-view? Is it represented? Deeper still, is it nourished? What does a person's world-view need for healthy growth and development? How might it be possible to relate the needs and metaprogrammes of masses of people to those of the decision-makers in society, the few whose policy decisions affect us all?

At once we are in deep water and the terms of the political debates of the future are stated. But, in returning to communications *per se* we do not have to adopt an attitude of hopelessness nor of desperation.



Prince of Wales Road eviction. Policeman and bailiff on roof. Sold to BBC TV's 'Nationwide' and broadcast. April 1974 (reportage).

Cybernetics

The answers to these questions have to be taken from cybernetics – the theory of communication and control in very complex systems.¹² Suddenly, the cat is out of the bag: media do the agenda-setting for society as a whole. In a so-called democratic society, the needs and metaprogrammes of millions are being catered for by the activities of the few and determined by *their* metaprogrammes. Fortunately, sciences of very complex systems *do* exist, and *are* applicable to questions of communications policy in particular as well as societal, or political, policy in general. We now turn to cybernetics for the guiding principles of the management of very complex systems, and these in turn will lead us to the type of decisions that can be made in the realm of both arts policy and social policy.

There are a number of regulatory principles which can be employed in the management and fostering of very complex systems. Of these we mention here but two, which are of particular significance to communications theory. The principle of Requisite Variety (Ashby's law)¹³ states that in order to accommodate the amount of inherent variety in a system, the regulating mechanism of the system must possess at least that amount of variety itself. In policy terms, this means that the level of regulation of a system should be such that the natural differences are allowed to flourish within the system as a whole. In video and communications policy, this means that there should be sufficient space in the social communications system for the *diversity* of activity to flourish. Administrations should not concern themselves so much with the specific types of (video) activity, but more with ensuring that there is sufficient resource for a multiplicity of activities to grow and develop. This is, of course, a very strong argument for the public support of Resource Centres, providing video services to a wide variety of clients, but having no filter or restriction on the metaprogrammes of individual clients. This is known as 'common carrier status'. Contrast this with 'support only for approved types of project under Ministry Circular No. XYZ789 . . . !

Another principal which we personally refer to as 'Beer's Law'¹⁴ states that in systems where there is (bureaucratic) control, the relaxation time (response time to disturbances) should be shorter than the intervals between disturbances. Taking video funding by arts administrations in the UK as a system in point, the response to disturbances of demand for funding originally made between 1969-1973 has still not been properly delivered. This is a response time of 3-7 years! The consequences of such a long relaxation time are that any movement in video which does become established – and there are all the signs that this is the case in the UK – will do so at least in part independently of any existing arts administration. This means that the over-long response time of the liberal arts wing of the post-industrial capitalist system called 'UK' is producing, by default, a strong survival-oriented independent video culture.

This appears to be giving rise to a 'third sector' of activity which is neither wholly commercial nor wholly state-supported, but which is in the form of independently-run public services. We postulate that if independent video in the UK receives a large amount of state support, its growth-rate will accelerate at the cost of its independence. However, the likelihood of this occurring in the next few years is virtually nil.

Role of the Artist

The artist has a most significant function in society – that of the innovator and that of the liberator (from fixed thoughts and forms). Art, as a leading part of popular culture, can be expected to yield more failures than successes – failure is the fastest way of learning (Ross Ashby, footnote 13). Art activity that produces only 'successful' enterprises should be regarded with suspicion, because the unpredictability has been removed. Communication of liberation is called



Guildden Road Eviction. Camden Council evicts squatters' drug self-help rehabilitation unit. October 1973 (reportage).

meta-communication, and differs from the communication of information.

This may sound like yet another call to élitists world-wide. But remember it is made in the context of a changing society. Why should art be the domain of the few and not the many? Shouldn't democratisation of culture, and in our case the liberation of communications technology for public access, be an integral part of our actual art activity? 'What we demand is the unity of politics and art, the unity of content and form' (Mao Tse Tung).¹⁵ We demand the unity of technology, art and politics; the unity of information, meaning and effect.

¹ T. Tomita, 'The Volume of Information Flow and the Quantum Evaluation of Media', *Telecommunication Journal*, Geneva, Vol 42, No 6, 1975.

² Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication*, University of Illinois Press, Urbana, 1949.

³ Dallas W. Smythe, 'Agenda-Setting — the Role of Mass Media and Popular Culture in Defining Development', *Journal of the Centre for Advanced TV Studies*, London, Vol 3, No 2, 1975.

⁴ H. D. Lasswell, 'The Structure and Function of Communication in Society', 1948, in L. Bryson (ed.) *The Communication of Ideas*, Institute for Religious and Social Studies, New York, 1964, quoted in D. McQuail (ed.) *Sociology of Mass Communications*, Penguin Education, UK, 1972.

⁵ Raymond Williams, *Television — Technology and Cultural Form*, Fontana/Collins, London, 1974.

⁶ Ludwig von Bertalanffy, *General System Theory*, Penguin, UK, 1968.

⁷ John F C Turner, lecture series on User-Controlled Housing, Architectural Association, London, 1974.

⁸ John J. Steele, unpublished work, London and Los Angeles, 1974-5.

⁹ John C. Lilly, *The Human Biocomputer*, Sphere/Abacus, London, 1974. (First published 1967, USA).

¹⁰ Stuart Hall, *eg.*, statement of views in 'The Television Discourse — Encoding and Decoding', *Education and Culture*, Council of Europe, Strasbourg, No 25, 1974.

¹¹ Roland Barthes, *Mythologies*, Editions du Seuil, Paris, 1957, published in English by Paladin/Granada, UK, 1973.

¹² Norbert Wiener, *Cybernetics*, MIT Press, Cambridge, Mass., 1948.

¹³ W. Ross Ashby, *Design for a Brain*, Chapman and Hall, UK, 1952; and *An Introduction to Cybernetics*, Chapman and Hall, London, 1956; Methuen, London (paperback), 1964.

¹⁴ Stafford Beer, *Designing Freedom*, Wiley, London, 1975; and *Platform for Change*, Wiley, London, 1975.

¹⁵ Mao Tse Tung, 'Talks at the Yen'an Forum on Literature and Art', (1942), *Selected Works*, Vol 3, English Translation, Foreign Languages Press, Peking, 1965.