

A CINEMATICS MODEL FOR HIGHER EDUCATION IN FILM STUDIES

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An important, thoroughly independent and personal art cinema exists, despite the conspicuous absence of a viable language through which this cinema should be discussed and thereby more deeply understood. This is not to say that attempts at discussion of the independent cinema have not been made; however, a diagnosis of these attempts most often reveals a deep rupture between the structures of the films and the structures of conventional language modes. This structural rupture is traceable, in part, to typical art school and film school curriculums, which tend to reinforce "naturally learned" (non-self-critical) behavioral and cognitive habits.

During my more than eight years of teaching various art making, art thinking and art historical courses I have noted with distress that most students have enormous difficulty in experiencing-regarding-discussing their worlds in dynamic terms; these students tend to force rationalistic-static ("everyday," grammatically linear) patterns over dynamic fields ("poems," "paintings,"<sup>1</sup> et al) and then wonder why they make so little progress in their growth as artists. This problem of having largely static sensibilities becomes acute when the students approach cinema, with its often intricate modulations of temporality, spatiality, and logic or fictive structure. For most students there exist only two basic, crudely divided senses of time -- "normal" linear-metric and "psychological" time; corresponding to this simple Cartesian view, students often have likewise limited conceptions of spatiality and of the potentially multidimensional levels of narrative and non-narrative order relations. What I am calling "cinematics" amounts to an attitude which is both critical of natural-naive conceptions of cinema and which is insistentl

open to new definitions of the film viewing and making enterprise. This cinematic attitude can generate a comprehensive curriculum which is centered around a cinema of exploration and which has the thrust at its every point towards opening up for continual reexamination its premises and objects of research; cinematics naturally supports a milieu wherein change is normative. Dr. Gerald O'Grady, Chairperson of the SUNY at Buffalo Center for Media Study, after having read the first draft of this paper,<sup>2</sup> directed my attention to Robert Graves' "In Broken Images," a poem which forcefully expresses the kind of analytic research attitude which forms the vortex of this cinematic orientation:

He is quick, thinking in clear images;  
I am slow, thinking in broken images.

He becomes dull, trusting to his clear images;  
I become sharp, mistrusting my broken images.

Trusting his images, he assumes their relevance;  
Mistrusting my images, I question their relevance.

Assuming their relevance, he assumes the fact;  
Questioning their relevance, I question the fact.

When the fact fails him, he questions his senses;  
When the fact fails me, I approve my senses.

He continues quick and dull in his clear images;  
I continue slow and sharp in my broken images.

He in a new confusion of his understanding;  
I in a new understanding of my confusion.

My usage of the term "cinematics" may seem problematical<sup>3</sup> and its genesis should be explained. In a paper entitled "Words per Page" (Afterimage #4, Autumn, 1972), first presented as an introduction to a course in Film Production at Antioch College in 1970, I suggested that the term "cinematics" replace "cinema" so that the analytical mode of work/thought I was suggesting to the students would be emphasized. The term was suggested to me by the term "linguistics." I did not fully develop the model in that initial paper; in this paper I intend to more adequately define the concept and to suggest its operational application to film instruction on the college level.

Because the cinema, as documentation, sociology, entertainment, or art, normatively involves a "communicative" function, it is not surprising that metaphoric phrases such as "language of film," "grammar of film," and the like are appealing. It should be made clear that while my use of the term "cinematics" was suggested by the term "linguistics," I do not intend to make any isomorphic transpositions. Still, "linguistics" - -because it is not "language" but "the science of language," and because, as a methodology, it offers innumerable morphological, syntactical and semantic tactics applicable to film composition and comprehension - - is a more exacting term than "language" and "grammar." In "Words Per Page" I stated:

"The word 'language', with its muddled definitions, is a worse point of departure for an understanding of human communication than is the more precise concept of 'linguistics.' Perhaps the vague term 'cinema' should be abandoned with all its anthropomorphic, pseudopsychological presuppositions and, instead, the less fashionable term 'cinematics' should be used as a base for our fresh systems. A lot could be gained from a study of linguistics if one wished to build a comprehensive and usable 'cinematics' model. As a process, film is related to language in that both are, on many levels, linear systems; for example, 'the sound wave emanating from the mouth of a speaker is physically a continuum' (Malmberg, Structural Linguistics and Human Communication)-- this is easily demonstrated by looking at the way speech is patterned on an optical soundtrack of a film. And, as Ferdinand de Saussure pointed out, "The signifier, being auditory, is unfolded solely in time from which it gets the following characteristics: (a) it represents a

span, and (b) the span is measurable in a single dimension; it is a line." (Course in General Linguistics).... "A structure, according to everyday usage, is made up of parts or elements having a certain mutual relationship, as opposed to a mere accumulation of mutually independent items. If human language is said to be structures, this should be understood in such a way that any language is built up of so called discrete elements (i.e., sharply delimited from each other and without any possible gradual passage from one to the other). Language consequently is analysable into minimal independent units, which are restricted in number and the functions of which they are determined by their relations to the other units with which they are combined, within a system of communication possibilities (a paradigm) and within the actual speech sequence, the chain (or the syntagm). . . If linguistics is called structural, this consequently implies that its main concern is the description and analysis of its functional units (its discrete elements) and of the relationship between these." (Malmberg) We see that it is highly problematic which of these parameters of 'cinema' can be legitimately regarded as 'elements'; in fact it is clear that our definition of what we shall regard as our 'morphemes' and 'phonemes' will predetermine what paradigms we can create."

Despite the rich analogues interfacing cinematics and linguistics, it is wise to make emphatic that cinematics is not subsumed under linguistics. Roman Jakobson, in his notable attempt to locate "poetics" (which deals with the question, "What makes a verbal message a work of art?") integrally within linguistics, points out that a case could be made that linguistics is not an inclusive enough system to deal with poetics: "In short, many poetic features belong not only to the science of language but to the whole theory of signs, that is, to general semiotics. This statement, however, is valid not only for verbal art but also for all varieties of language since language shares many properties with some other systems of signs or even with all of them (pansemiotic features)."<sup>4</sup>

If we accept the concept that linguistics is a subset of semiology, it is obvious that a purely linguistic base for cinematics is untenable. Even an area so deeply influenced by linguistic models as "structuralism," another methodology important to a general cinematics, has in recent years shifted away from linguistics:

"Linguistics had for some time provided a leitmotif orchestrated

in the works of Barthes, Lacan and Lévi-Strauss. It was said of linguistics that it should have provided a theoretical methodological model and a universal matrix for understanding all human phenomena (at least at the interpersonal level)....[but]....structural linguistics itself unknowingly perpetuated the Hegelian inheritance.... Foucault's apocalyptic announcement in The Order of Things of the imminent disappearance of Man restated the necessity of renouncing the burden of our Hegelian metaphysical heritage while situating us this side of its crepuscular horizon. And his proclamation that the last man is both younger and older than the death of God states succinctly the inevitable relationship that such an enterprise has to Nietzsche's. Nietzsche has now come to occupy the central position that...was held by the Gallic Hegel."<sup>5</sup>

Nicolas Ruwet, writing of linguistics and poetics, makes an even more specific statement:

"We are not only interested in carefully separating the object of poetics from that of linguistics; we must also remember that structural linguistics represents only a movement -- now in the past, since the development of generative grammar -- in the history of linguistics.... I will add that there still exists, on a different level, a real danger, one which lies in the development of a 'structuralist aesthetic.' By this I mean the tendency, against which we should protect ourselves, to ascribe undue value to those few features -- among all of the possible aspects of a work of art -- which we are now able to describe with a certain rigor<sub>6</sub> through terms drawn from the concepts of structural linguistics."

It should perhaps be pointed out, since confusions still exist, that the "structuralist aesthetic" that Ruwet mentions and, for that matter, all of what has been discussed as "structuralism" in this paper is not at all related to P. Adams Sitney's well known designation of the phrase "structural cinema" to what he sees as a class of related films made in the middle and late 1960's. ("Structural Cinema", Film Culture 47, Summer 1969). In conversation and correspondence I have come to know that Sitney fundamentally disagrees with traditional structuralism; he regards traditional structuralism as a "repugnant academic discipline." Sitney's concern with the blandness of much academic thinking is easy to share; nevertheless, structuralism has demonstrated its not so bland capacity for continual self-reorganization, exhibiting a high-spirited openness which makes it valuable to cinematics.

What follows in this paper is: first, a discussion of some of the problems involved in discussing contemporary film art; second, an explanation of the kinds of film (and video) making courses which complement the cinematics model; and third, an overview of various approaches to historical and theoretical courses which can form the armature of a cinematics curriculum. This viewpoint is evolved from personal experiences in filmmaking and film teaching. Thus, the paper is not at all intended to be a strict blueprint; it is open for expansion, revision and clarification.

There is a history of the kind of independent film art considered to be of central importance in this paper. In the 1920's a number of "experimental" ("avant garde") film works were made, primarily by European painters and sculptors. These works challenged works being made by commercial producers; already, in various degrees and styles, the normative linear time-plotting and the illusionary three dimension spatiality of the "feature" film were seriously being complicated. However, these impressive art films were not widely appreciated and no branch of art criticism or area of university study was developed to accommodate their new articulations of time/motion/space. Only in Russia, where "formal-minded" filmmaking existed during the 1920's in the "feature-length" mode, were there developed systematic, theoretic frames of reference which dealt with non-typical film forms (Eisenstein, Pudovkin, Vertov); problematically, "montage" theories, as interesting and inventive as they were, were interwoven with political conceptions which are less compelling and appropriate today than they were for Russia during the first post-revolutionary decade. A resurgence of art filmmaking occurred in America after World War II but it was only during the middle 1960's, when a large enough body of significant works existed, that the "New American Cinema" was finally recognized as more than an "underground" (seedy, nihilistic) movement. Only the journal Film Culture had been consistently critically supportive of the new cinema; no real recognition of the importance of the new work was given by the academic world. Toward the end of the 1960's

some private art institutes attempted to integrate experimental film studies into their curriculums but, for the most part, could not or would not adequately budget these areas and most such programs have basically failed. In the early 1970's the situation was radically changed: established art journals have begun to publish art film criticism and a few large universities are developing properly financed art film programs. In spite of this hopeful development, a coherent and sophisticated language about film has not evolved at the same rate as the ever advancing new cinema; more and more artist filmmakers are teaching and so the problem may resolve itself in time. Nevertheless, there is not much communication between filmmakers regarding their teaching approaches and it is hard to estimate congruities of approaches, if indeed any exist at all; there appears to be even less interchange between film artists and film critics on this level (consequently, most criticism seems less than inspired).

Forced to dismiss normative, literary and psychological film theories, just where can one look for models of understanding a cinema which is not primarily narrative or dramatic? A number of filmmakers whose work is under discussion formerly were painters or photographers and a number of the critics currently interested in their work are or were critics of abstract art. It is noteworthy that during the 1950's and 1960's a relatively successful vocabulary ("formalism") was employed by critics of painting and sculpture. It was a mode which by-passed the artists' intentions, dismissed "poetic" interpretations, and focused on apt description of the art object; the aim was a certain discreet "objectivity." Recently this form of discussing "static" art objects has been used in criticism of independent films; while the intelligence and rigorousness of this approach is laudable, this writing, when applied to film, reads more like a description of a series of connected paintings than as an explication of a unified temporal structure, the film "object." After years of the "poetic" indulgences of

normative film criticism, clever as it often was, it is a pleasure reading the level-headed descriptive analysis of the formal-oriented critics; however, the built-in assumptions of many of these current analyses, based in non-moving and non-temporal art object structural logic, undercuts their fine intentions.

Are there descriptive languages of transformation which are applicable to film? Both calculus and the theory of information (mathematical communication theory) are rooted in mapping dynamic systems; Piaget's interpretation of "structuralist" analysis makes transformation a cardinal assumption; and, a case might even be made for including some aspects of cybernetics as relevant to filmic consciousness. Until the middle 1960's, the vocabularies of poetry and music, evolved over centuries to deal with transformation, proved helpful as models for discussions of independent cinema. But, with the emergence of analytical ontological, epistemological, and information oriented works, these languages appear relatively non-applicable. An argument could be made for the relevance of certain composers' works and theories -- e.g., those of John Cage and Iannis Xenakis, as well as those younger composers, Steve Reich, Phil Glass and La Monte Young, whose work has curious resemblance to the film works under discussion -- except that most cinema involves both a music-like concreteness and non-musical semantic information (Rosalind Krauss has made a strong case for the sense of non-copresence experienced in perceiving photography and film<sup>7</sup> and Annette Michelson, borrowing from Peirce's icon-index-symbol semiology, convincingly locates photography and film within both indexical and iconic sign levels).<sup>8</sup> Seen in the light of film's semantic information, poetry might appear more related to cinema than music; yet, film's referential icon and index character is not necessarily symbolic, if we accept Peirce's distinctions between sign types. Given these problems, how can a curriculum guide students into truly filmic discourses? Before approaching this most difficult question, an important premise and its implications should be explored: the relation theory is to have with practice.

It seems reasonable to suggest that for a student of film to make valuable contributions to the art, either by way of making new works or by critical discourse, the student must have a grasp of both technical and theoretical problems particular to what is being designated here as the art of film. It should be made clear at this point that a continual balance of theoretical inquiry and actual film making is integral to a cinematics curriculum and that an undergraduate should not be forced to specialize in either one or the other mode. Following this logic, it is important to suggest a larger curriculum which would support and complement an art oriented cinema studies area. Art schools which exist totally autonomous from liberal arts colleges cannot probably fulfill these requirements as they most usually have incomplete and/or poor "non-art" curriculums; I make this statement after having taught in an art institute for three years and from several years of making extensive lecture-screenings in art schools in America and Europe. In part, the failure of art schools to support the new art of personal cinema is due to economic difficulties beyond the control of these institutions. What is most distressing is the chronic conservatism of the typical art school; I believe this is due to dependence upon style (rather than upon thought) in "free-wheeling" art school contexts. Styles in art naturally change when the thought bases which they manifest shift-grow, but many art schools, because they are often over-specialized and removed from larger social concerns, attempt to sustain curriculums in the image of their faculties' own styles. These are the reasons I felt compelled to leave the art school context. In 1970 I began developing Antioch College's film program, which I believed could succeed because the range and variety of "non-art" stimulation afforded students of film art in that context was vast in relation to what could be afforded them in art schools. The program did succeed, in a way which it could not have in an art school; it is a healthy and productive program, now in the very able hands of the film artist Tony Conrad. My interest

in joining the new Center for Media Study at the State University of New York at Buffalo was founded on the premise that SUNY's larger and more diverse resources could even more intensely facilitate students' development of cinematic consciousness. The resources and enthusiasm at SUNY at Buffalo seem capable of not only developing a viable cinema program but a comprehensive temporal media program, including video studies.

Aside from normal liberal arts requirements, I believe it is helpful for the film art student to take courses in: psychology (social and perceptual); psychophysiology; semiology; linguistics; mathematics; information sciences; computer programming; art history; poetics; literary studies; theatre studies; music theory; studio art courses; electronics; physics; natural sciences; and, above all, philosophy (particularly those branches of operational philosophy dealing with generalistic-interdisciplinary modes such as general systems).

A Media Study Center would be incomplete without extensive studies in: film history (experimental cinema, documentary, classics of the feature film); video history; film criticism (the modes of criticism which have been used, are being used, and could be used in interpreting and evaluating various modes of filmmaking); video criticism; media teaching modes; film analysis (viewing-discussion courses); video analysis; and, of course, film and video making courses. All of these general courses can take a multitude of different formats; variation and even contradiction are essential for a dynamic, open and self-organizing system.

Pursuing the conception of an integrated theory-practice situation, a further premise suggests itself: that students simultaneously study both modes with the same filmmaker-teacher. The reason for this is opposite to the not unheard of tendency of some teachers to indoctrinate students. Ideally, the teacher, by splitting his functions into two contexts at once can be open to and respecting of student defined forms of enterprise in studio courses as well as being free, in the theory context, to elucidate his own thoughts and others' thoughts on what constitutes an aesthetics of film. The teacher furthers the student's growth by having empathy with the student's unique motives (helps the

student discover these motives) and, on the other hand, by presenting new thoughts to the student, thereby clarifies and/or challenges the student's own conceptions. The teacher need not suppress his unique formulations in order to guide the student toward self-realization. Seen in this light, it is obvious that to force "theory" into "practice" situations would be to distract the student from organic, creative growth. Cinematics cannot be simply a system of perceiving and regarding cinema but should be likened to a multidimensional field of inquisitiveness, wherein relativistic-probabilistic attitudes coexist with more axiomatic views. Flexibility and humor facilitate serious engagement. Certainly some basic principles, shared by all those engaged in a research mode, would also seem necessary-- yet, the search for such principles is much of the substance of the research itself and so definitive principles are difficult to form (perhaps it is this that lends the task its richness and seductiveness). Many different modes of method, thought and form can be integrally subsumed in a general cinematics process-frame (e.g., the often stated differentiations between "narrative" and "non-narrative" are not to be regarded as conclusive -- so many ironic and straightforward convolutions of these "disparate polarities" have been woven into convincing films that to think of them as distinct categories is now impossible. The most basic principle of cinematics, its very vortex, is that student and teacher share the analytic research attitude; exploratory, experimental behavior is of higher value than any specific methodological stance or any specific designation of acceptable content. Still, works and theories exhibiting experimental-analytical concerns form the most compelling research area. (Note that "research," in this context, refers both to "study" and to "creative work.") What might distinguish this approach from scientific approaches is that no solution

to the issues raised is necessarily postulated; attitude and behavior --"process"-- are more important than conclusiveness.

There are probably innumerable ways in which a research frame of reference can manifest itself in film and video making courses. However, there exists one approach which is as damaging to creative development as it is common to normative filmmaking courses: this is the approach which overstresses technical "professionalism," assuming the innate correctness of whatever (arbitrary) school of thought it follows. The appeal of this approach is evident; it easily gratifies the students' desires for absolutes and it relieves the instructors from confrontation with the individual student's actual needs as a unique creator. It is interesting that most of the film artists who are presently teaching filmmaking and knowing courses never had "formal" technical training in film. (When deciding upon what my graduate school education should be, I consciously and morally rejected "studying film" in what were then existing "film study" programs, even while firmly realizing that I would pursue cinema as my life work -- these programs were and are destructive to personal expression.) I would suggest that no program be based upon traditional (i.e., ultimately "commercial") technical production models. This fact -- that my potential as a film creator would have been damaged by traditional technical film studies -- has motivated me to search out a means of teaching film without destroying the individual student's unique capabilities and inventiveness. It would have been helpful to me to have had some technical training, if it could have been in a creativity-oriented context; as it was I had to learn simple facts from very painful experience. This waste of time, I believe, is avoidable -- but it is not easily-productively avoidable. The program which avoids destruction of individuality while providing the student with basic skills is no casual matter; this problem forms the core of my suggestions for a curriculum.

While traditional, "professional" techniques and procedures should not be the core of introductory filmmaking courses, certain of these techniques are valuable for the student to know from the very beginning. These techniques should probably be presented in logical-pragmatic progression but should not be permeated with an air of being "fundamental"; these techniques should be regarded both as simply operational and as having some organic relation to the unique motives which arise for the student as a whole human being and artist. This apparently paradoxical proposition does not disclose a hopelessly impossible conception; the Bauhaus, with at least some small success, faced such a task and something from the Bauhaus concern with "the whole man" must be somehow applicable to our problem. The easiest solution may be found in having the student begin his studies in a protocinema framework so that the subsequent technical developments of cinema proper would naturally suggest themselves, before being presented in the introductory filmmaking course.

Another sort of course which might be of value is one in which the most broad investigation of the documentary-recording functions of cinema would be undertaken, without any particular stylistic goals being stressed. Rather than taking the typical social and/or anthropological approach, attention would be given to film's pure indexical structures (light types, lenses, emulsions) and procedures (microcinematography, photo-spectrometry, time-laps, thermography, "Kirlian" or radiation field cinematography, etc.). The use of fluorescent, ultraviolet, polarized, infrared, laser, x-ray and other radiation systems would be experimentally studied in their image forming relations with variously sensitized film stocks. The iconic and symbolic limits and implications of recording-projecting should be the ongoing center of discussion in such a course; the large danger that such a course could

become purely technical and sterile would have to be continually, consciously checked. Technical, perceptual and conceptual dimensions should be reflected back and forth amongst each other at each level of the study. In recent years a great deal of the most interesting art has in some way or another interfaced with scientific and/or philosophic investigations, in either subjects or techniques. There is no reason why this tendency could not find a secure place in a cinematics curriculum.

Video making courses would be pursued in a manner which would explore imagery and techniques that are implicit in the structure-function of video as a perceptual and physical system. Students might even be required to work with both film and video; these mediums obviously share characteristics but it is important that students study their many differences. One way the crucial differences of these media could become explicit is by developing a course in which the student would transpose imagery back and forth between the mediums, attempting a balanced hybridic synthesis while also noticing and emphasizing the transformations of the imagery which would occur at each stage of such an interplay.

As mentioned before, at intermediate and advanced film study and making levels more and more complex recording systems should be presented and explored for their imagistic potentials while, simultaneously, the student should also be encouraged to follow deep personal inclinations. However, a flexible curriculum will also respect the value of some more structured courses: if the artist-teacher is personally intent on deeply exploring a particular system it is obvious that, properly presented, the course of this investigation could be profitably followed by students -- probably the students' work could also be of aid to the artist-teacher. The artist who teaches knows full well how much these two roles often interface and at times become indistinguishable. It is possible that this can cause confusion and distress to everyone concerned, the teacher, the students, the administra-

tors of the program. It is also possible, that a wonderful symbiosis between all these elements of the general system can occur, benefiting each member of the relationship and, from this, effect a continual betterment of the system itself. Most institutions recognize this in at least one sense: the faculty, whose technically defined role is "to teach;" is also encouraged, by various "faculty development awards," to go on learning and growing in their special area. Institutions with graduate programs also appoint graduate students to teachers as research and teaching assistants. This often does not work well in art departments because of displaced notions of "individualism"; this is hard to precisely define but I believe most art educators have encountered and understand this selfish form of "individualism" (which makes potentially valuable group projects in studio classes so hard to guide). This "individualism," a form of subjectivism which is usually dignified by recourse to romantic interpretations of art historical figures, is not the kind of student self-development and self-realization which can exist in a research oriented, democratically structured cinematics curriculum, where sharing is essential and a mood of friendliness is most pragmatic. An open, symbiotic system can be modelled by extending the before mentioned idea of having some courses defined by the teacher's special interests into graduate level courses wherein the student peer directly into their teacher's art making processes and expand their own abilities by participating in the creation of the teacher-artist's projects. It is assumed that the teacher's special interests and style of working are more advanced than the students' and that the teacher is a worthwhile enough artist that he has something creational to impart to the student in such a learning-by-doing situation. My own work is exploratory and expanding, not an attempt to polish more and more carefully a particular style; I have found

from having had, during the past three years, several of my best students work with me on my projects, salaried and doing twenty to thirty hours of work a week, that these situations allow me to teach more of what I know of my art than do normative classroom situations. In working with me, the student assistant is called upon to be technically inventive and to participate in creative formulation of the project, and not just to do tedious dirty work. The student learns, in an adventurous and professional context, advanced techniques and, more abstractly, learns my modes of problem solving, scheduling, ways of organizing complex projects and inventing alternative financial strategies, things which are impossible to impart effectively in the typical studio classroom, where I am attempting to focus my attention on the students' not so complex self-defined projects. The assistant can selectively draw upon this more practical knowledge in structuring his or her own life-work as an artist. I have had the great pleasure of noting how my former assistants have become more serious with their own work after having worked with me; aside from the pragmatic aspects of this sort of team-work, an increase in the enjoyment of working and a deepening of friendship with an assistant makes this relationship of central value to me, and, I believe, to the assistant as well. At this moment I have more projects and problem areas to pursue than I have time to deal with by myself in a single life-time. I can envision a graduate level course wherein, through the help of an inquisitive class, a research assistant and a teaching assistant, I could explore these areas, presumably with the same mutual advantages that exist in my relationships with my hired student assistants.

Group work is not an innovative conception of student-teacher relationships; it has been a general practice in many research oriented university departments and has been used where group study is normative (i.e., dance and theatre). Nevertheless, group work has specific problems and probably cannot be jumped into without some degree of gradual adjustments for both

the teacher and the student. An intermediate step from personalistic to group work situations can be construed. This kind of course should not be specifically product oriented and should not be structured solely by the teacher. In fall 1974 I worked with a small group of advanced students in such a situation and am encouraged by the fruitfulness of this approach. The course was described as follows:

"Restricted to graduate and/or upper division undergraduate students who have already demonstrated considerable theoretical and production skills in cinema. This is not an apprenticeship situation, although the problem areas have direct and indirect relation to the instructor's thinking and filmmaking; a 'group dynamics' approach, allowing for individual creativity, will be employed. In general, traditionally "non-art" areas such as mathematics, natural sciences, philosophy, linguistics, psychophysiology and computer sciences will be explored for models relevant to cinema; in some cases conceptual analogues will mark the end of the research but, in other cases, these analogues will be materially realized. The methodology which will be most usually employed is as follows: the instructor will outline a variety of interest areas; the student picks out a problem which is personally interesting; the student, or small teams of students, appropriately studies the problem for one or two weeks and then makes a presentation of findings, verbally or with the use of charts or other visual aids; each week, after each data presentation, the whole group responds by way of 'brainstorming' (this is the reverse of a 'critique'; everyone's intelligent speculations are taken up by the group and expanded to their furthest operational conclusions); at this point, the data is either rejected as infertile, or a need for further research is suggested, or an applicable cinematic model has been developed. In some cases, applicable models might be realized materially in the seminar context; however, in most cases, the models 'belong' to anyone in the group who wishes to use them in personal contexts."

When "film art education" is posed in these terms, one can begin to envision the transactional relation of teacher-students as a "research team"; this is in opposition to hierarchical-patriarchal interactional teaching systems which non-democratically mask the "teacher" as intrinsically superior to the "student." Observed this way, cinematics has its axiology.

The range of theoretical and historical courses which complement the kind of making courses I've suggested remains to be discussed. Where does the student begin to grasp the state of his or her art? How does he or she

progress towards more and more depthful and subtle understandings?

The central concern of the curriculum I am proposing is with the "avant garde" film but this does not preclude interest in the history and theory of the normative documentary cinema and the commercial "feature-length" cinema. Certainly there are overlapping of concerns and techniques and these should be studied. As already stated, the student should have as comprehensive an understanding as possible of the totality of human temporal ordering. This means that traditional values and concepts should be explored, if only to critique and dismiss them as too insufficient for operational usage. It would seem that a "film criticism" course would adequately explore such traditional conceptions (i.e. the theories of Bazin, Kracauer, et al). Historical studies would concurrently round out such critiques. In these area perhaps a semiological approach, typified by Christian Metz's Film Language: A Semiotics of the Cinema (Oxford, 1974), is most reasonable. However, it seems unlikely that the semiological study of narrativity has much bearing on works which do not conceal their deep structures within a fictive order. Responding to and understanding non-fictive, often self-analytical works (which are the primary consideration of cinematics) presents different sets of problems. Many intellectuals of the semiological persuasion have a fondness of applying analytical models to work which does not itself exhibit analytical or experimental intentions and, indirectly, this begs the question: can what is already an analysis be fruitfully the object of analysis? This is a question too complex to be fully treated here, but it will be generally assumed that reflection upon reflection is not only possible but necessary; furthermore, all analytical models should be tested to see if they can (non-tautologically) analyze their own structures. An interesting analogy between this problem and a problem in cybernetic models of thinking exists; Frank George, chairman of

the British Bureau of Information Sciences, in discussing why certain self-reflective subroutines must be built into some computer programs, states:

"If, as seems necessary, a computer program is to show the property of being proof against 'bluffs' or indeed if it is to have the capacity to change its own goals or subgoals, it must...carry an internal model of its environment. This internal model must involve calibrations of the reliability of information sources, details about people and things, both in particular and in general terms. As far as bluffing is concerned this involves the need to analyze the motives in other external human-like sources. It is, of course, obvious that these are complicated probabilistic activities and are likely to be unreliable, but this is not our present concern as such. What we are concerned with is the fact that having an internal model of the external environment also entails a model of the people in it and their characteristics. It also involves a model of the 'self', i.e. the program must contain some representation of itself. This self-representation can be picturesquely thought of as being like the bear on the label of the treacle tin; he is holding a treacle tin in the picture and one it is a bear holding a treacle tin and so on. This is surely one aspect of consciousness and self-awareness."<sup>9</sup>

It is usual that a discipline is introduced to students from an historical point of view; however, there is no way of insuring that the understanding of any one film will occur by following chronological development of styles -- in fact it is likely that this approach, used exclusively, will reinforce the "natural attitude" (atomistic categorization as a way of "knowing") and mislead the student. Historical knowledge of any area is indispensable to the serious student of that area; but, if one of the primary aims of education in film is to enable the student to develop a sense of transformational structures, then a purely rationalist, static, linear view of film will obviously obfuscate that intention. The diachronic view could be of use if it framed itself within a specifically focused thematic context (e.g., following the threads of the seminal American "psychodramatic" film form through later subjectivist manifestations to the eventual reversal of the film viewer's role, from being an observer of a protagonist's inner world to direct self-reflection during the act of observing). But the whole logic of studying art from thematic reference frames, grouping works by style characteristics -- by and far the most prevalent "appreciation course" technique -- could stand some scrutiny; certainly, if the student is offered this approach exclusively and from one point of view, it will be crippling to the student's individualistic growth. The student may be able to group together

sets of works, which has some value, but may still not have gained a capacity to deeply experience any one work. This ability to group works together, even when done with wit and finesse, may not be of central use to the student who desires to make films. It should go without saying that both the above discussed chronological and thematic survey modes are valuable; what I am stressing is that these approaches have limitations and if they are employed exclusively one can make strong predictions that the students' education will be incomplete, perhaps in fundamental ways.

The purpose of what follows is to suggest the forms a cinematics approach might take in the esthetic studies dimension. A basic three level division of types of study will be described; they are described in a progressive order: interpretive cinematics, analytical cinematics, and speculative cinematics. There is not just one mode of interpretation or of analysis or of speculation so it is obvious that I am not speaking of simply three courses with fixed form and content. On the contrary, each of these three general approaches will take any number of varying emphases.

Interpretive courses are those which present and discuss works in the above mentioned historical and/or thematic modes. While mention can be made of specific analytical methodologies, it is not the task of these courses to deeply analyze individual works. Here, the student is introduced to the longitudes and the latitudes of the cinema which has been called "experimental," "poetic," "underground," "non-narrative," psychodramatic," "personal," etc.. The task is to give the student an overview of the art film movement, to interpret its general tendencies, to become aware of its most important artists and of their stated esthetic intentions. At higher course levels, interpretive courses might intensively study a particular historical period and the relationships the films might have to other concurrent arts forms; or, intensive study of a partic-

lar style (say, surrealism and automatism) could be pursued; or, in-depth studies could be made of single artists who have created a significant body of work and who have had measurable influence on the development of film art.

What distinguishes analytical courses from what I am calling interpretive courses is that the films which are viewed analytically need not have any historical or stylistic connection. In fact, the works shown should be highly differentiated to that what is consistent is the testing of specific analytical modes; the search is for discovering or developing a general language, capable of application to any number of film works. The individual film -- largely divorced from the contexts of its maker's intentions and its stylistic or historical relations to other films -- is what is being directly attended to. Such analysis could proceed along, say, structuralist or phenomenological lines. A structuralist approach would stress the syntax of the film works while a phenomenological approach would investigate the layers of consciousness which different works elicit in viewers. (I personally feel that phenomenological research should be clearly distinguished from the sort of psychoanalytical interpretation of "meaning" of content which is so typical in literature courses and in courses dealing with narrative cinema; naturally, some surrealist and psychodramatic works can be interpreted as ~~dream~~-like but I would suggest that these films do not constitute the most appropriate kind of work for phenomenological analysis because while they "picture" the dream state and invite viewers to participate in dream logic, they do not induce a dream state in an individual viewer.) Some "minimal" films, which do not guide the viewer along a narrative or a directive formal development, provide viewers with an open field within which the individual viewer can enter "dream-like" states of consciousness; these "synchronic" films are most appropriate to phenomenological analysis. Films which are themselves

"dreams" or are dream-like are more fruitfully analyzed with structuralist tools. Either structuralist or phenomenological analysis could proceed along any number of other emphases. Within structuralism there exists a great deal of debate as to what constitutes its range of subject material and its basic methodologies (as is shown in Macksey and Donato's anthology, The Structuralist Controversy); the same is true in the area of phenomenology, where there exists a definitive growing away from the seminal concepts of Husserl (as is revealed in James M. Edie's anthology New Essays in Phenomenology). So, we see that these areas are rich in potential applications.

From a structuralist perspective, we are concerned with the loosening of macrostructures into networks of parts, the microstructures of works. It should go without saying that one must be aware of the dangers of such atomistic probings and recall the lessons of the gestaltists. Furthermore, the dynamics of structure should be emphasized, rather than static notions; Noam Chomsky's transformational grammar models of surface and deep structures (Aspects of the Theory of Syntax), Jean Piaget's insistence on the transformational reversibility of true structures (Structuralism), Abraham Moles' concern with the time dimension of structures (Information Theory and Esthetic Perception) and Ludwig von Bertalanffy's definition of open systems (General Systems Theory) are cardinal lessons. Echoing von Bertalanffy, G. J. Klir states:

"If the system exhibits a particular behavior, it must possess . . . certain properties producing the behavior. These properties will be called the organization of the system. Since, according to the definition given, the behavior of a system can change (from the viewpoint of local relationships), we must assume that its organization can also change. It will be of advantage to define the constant and the variable part in the organization of a system. Let us call the constant part of the organization of a system the structure of the system, the variable part, its program."<sup>10</sup>

Information theory is a structuralist analytical methodology. Several years ago, using Moles' Information Theory and Esthetic Perception, I tried to introduce the theory as part of a general "information" theme: first, in a course called "An Esthetic of Information," in which film's information potentialities were related to other recent information oriented approaches in

painting and sculpture (mathematical and conceptual art and the documenting tendencies in earthwork and body art forms); and in a course called "Structure as Information Matrices," comparisons were made between certain film forms and painting-sculpture modes which serialize, schematize, and/or use progressions or accumulations or otherwise stress interior structure as "content" (here the "grid," which perceivers scan in "static" work and follow in certain film works --such as Hollis Frampton's Palindrome and Ernie Gehr's Serene Velocity -- is a useful frame of reference).<sup>11</sup> More recently, my class and I followed Piaget's Structuralism,<sup>12</sup> attempting to apply his dynamic models of structure to a wide variety of films. Both the information theory and the dynamic structure models proved fruitful. Yet, neither approach can properly account for the subjective factors in experiencing films; so, most recently, I've attempted to adapt Edmund Husserl's phenomenological methods for film analysis situations. In the future I hope to find a means of inter-facing both the structural and phenomenological modes, preserving the strengths of each system.

Phenomenology, in the most general sense, is the attempt "to limit oneself to the data which are presented in consciousness -- describing rather than explaining them."<sup>13</sup> Husserl's phenomenology is valuable in that it posits relatively dynamic models of consciousness, especially of "internal time consciousness." His conception of "bracketing" (suspending) one's "natural attitude," and thereby accomplishing perception of one's perceiving during the act of perception, is invaluable in attempting to bridge the gaps between the structures of film and the responding self. However, Husserl's own logic is full of gaps and many of his models of perception have long been superseded by the psychophysiological research of the last several decades. Many of his propositions concerning reflection, memory, imagining, pretending, etc., have been thrown into doubt. Yet, he framed many of the areas which must concern

those who are involved in transformational media. It has recently been demonstrated, primarily in the area of "bio-feedback," that a large part of our awareness exists on levels not readily available to rational consciousness. An advanced course in phenomenology might be team-taught with a psychophysicist, using instruments which would measure alterations of brainwaves, blood pressure, galvanic skin responsiveness, etc., during the act of experiencing various film and video works. The same devices could then be used to allow students to modulate music and/or video synthesizer systems according to their learned control of their previously subconscious perceptual apparatuses.<sup>14</sup>

In introducing speculative cinematics, some points should be made concerning the role of humor in creative work. Perhaps the tone of "objectivity" which runs through this paper will lead the reader to assume that it presents too severe a model for an art curriculum. In fact, just as there exists a great deal more humor in so-called "minimal" "structural" cinema than most viewers at first recognize, there is more lightness in my views than might immediately be inferred. These views are predicated by the belief that self-development, which does depend on the opening and releasing of the "subjective self," does not necessarily involve neurotically morbid excesses or autistic self-indulgence but that the individual's inner world coincide positively with external reality and social life (the "objective" dimensions); Iannis Xenakis, speaking of "metamusic," states this lucidly in the course criticizing current romantic-subjectivist tendencies in music:

I shall not say, like Aristotle, that the mean path is the best, for in music -- as in politics -- the middle means compromise. Rather lucidity and harshness of critical thought -- in other words, action, reflection, and self-transformation by the sounds themselves -- is the path to follow. Thus when scientific and mathematical thought serve music, or any human creative activity, it should amalgamate dialectically with intuition. Man is one, indivisible, and total. He thinks with his belly and feels with his mind.<sup>15</sup>

The late Robert Smithson, perhaps the most outstanding earthworks artist (and author of the lovely film Spiral Jetty), advocated a fourth dimensional humor which fits well in cinematics at its highest level ("Entropy and the New Monuments," Art Forum, June 1966). More operationally, Zen Buddhist uses of

humor to bring about collapses of subjectivity into reflective embraces of objectivity are instructive to cinematics. Integral to humor is playfulness. ("To keep your art young you have to imitate animals. What do they do? They play". Constantin Brancusi). To speculate is to play. Speculation is a natural activity in a relativistic, probabilistic world. At a certain point, where one might measure, if one could, a 180 degree shift in the angle of sensibility, the student hopefully recognizes the humor inevitably attached to a pursuit of eidetic cinema. This humor may or may not be a laughing matter but it certainly can be used to generate a speculative subject matter. The problem which presents itself is: how does one tell what is humorous, in distinction to what is serious but idiotic, or what is absurd but which "feels" utterly pedestrian, or what is substructurally humorous but masks itself in an attempt to remove itself from the level of joking, or what is joking without being funny? Fortunately, one is not called upon, in speculating, to be sternly comic; the alternative to rigid humor is not crystalline seriousness but an outlook aimed at what lies beyond both humor and seriousness -- the unthought, the undone, the unfelt. "Brainstorming" is an effective way of pursuing concepts through their possible implications, but what is an equivalent form for a group searching for what it cannot define? The most important consideration in determining the nature of what such hypothetical thinking should be is, finally, its functional outcome for the student, what will facilitate his growth when he is beyond the security of studenthood. By graduate school, the student has gained another form of security: a grasp of his subject. This means that the student can not only withstand a bit of irony, and appreciate it, but also may need it to loosen up what may have become for that student a premature calcification of attitude and style. Humor and seriousness may coexist in a singular pursuit or object or thought; an idea which at first appears humorous may, upon deeper reflection,

reveal itself as being very serious -- this is the kind of irony which could be employed in construing areas for speculation. The speculation cannot be mere fantasy, innocuous toying about. It should involve the posing of difficult questions, perhaps questions which are ultimately unanswerable but which can serve to direct the mind into realms beyond logic. Many an important artist has set for himself goals beyond what can be possibly achieved and has left for us marvelous, if not absolutely successful, tracings of his reaching ever beyond himself (one thinks of Cezanne, in his very old age, complaining endlessly that he just could not get "it" right).

Anyone who would venture to "teach" a speculative course would have to have, personally, some self-challenging unanswered (perhaps unanswerable) art questions and would have to have a willingness to share these questions with students. Curiosity about something is not strong enough to guide such a course; there must be an intensity in the wondering process to sustain it through its inevitable "dead-end" frustrations. I am interested in this kind of course because there are some questions, at the heart of my own filmmaking, which at once elude me and guide me on. One of the most interesting of these questions -- one which may even appear anti-cinematic and self-contradictory -- is that of non-temporality in film. "Film is light in motion," "motion is continuous with or is a series of stages within time." Film is distinguished from, say, painting because of this linear time base, as well as for spatial-indexical image-making factors. I have already stated that simplistic linear and psychological time conceptions are insufficient for lucid transformational experiencing. Over the decades a number of films have tested normative times bases, particularly the one they are supposed to exist within. One thinks immediately of those Proustian narratives which compress some stages of their developments and then "float" others; and, of course, those poetic narratives which suggest instantaneousness ("Blood of a Poet"), or surrealism's plays with intersections of time(s) ("Un Chien Andalou," "The Seashell and the Clergyman," up to "Last Year at Marienbad" and some recent Bunuel,

among other more or less narrative works). The "experimental" cinema has always exhibited a depreciation of normative time bases and a listing of works which attempt to distort, convolute, invert or ignore "time" would be too many pages long to entertain. One thing, though, which might be said of so-called "abstract films," is that they do not directly confront the time issue significantly; they just "are," in any time. Some of these "abstracts," or even so-called "structural" films, have types of developmental structures, which, while they do not represent linear time, evoke it; these films have the "moving-towards-a-point" sense rather than having a "timeless" sense. They are not "synchronic," they simply do not illustrate "time" -- yet, on a higher level, like calculus, they formally infer linear or developmental time. I am not denouncing "time." But, I do not care to be bound to "it." The composer, La Monte Young, has referred to some of his music as "eternal," and thereby "timeless"; what he means is that this music is always happening but we only hear it clearly when he performs it (this being a slice of the no-beginning, no-ending time continuum). This rejection of being bound by time is linked, in some sense, to the democratic axiology -- freedom of time. A painting is supposedly non-temporal because it is "there all at once"; yet, it is not instantaneous, it tends to go on as we watch it, through some form of time. Every "elementary" particle, it begins to seem, has a sort of "synchronic history" of subparticles (which is taking us time to recognize) and so even "simultaneity" is coming up for the test. Where does anti-matter exist? Is the Cartesian reversal of time, "inverse time," really non-temporal? Are "inverse time," "anti-time," "no-time," actually subtle shades of time?

Experientially speaking, one can ask, "What is the relation of 'memory' to 'time'?" Husserl and others have asked this provocative question. Memory (protein?) and cognition (abstraction?) seem related; are they related in the same sense that one frame of film follows the previous frame of film? Henri Bergson, in his chapter "Form and Becoming," in Creative Evolution, does pose a cinematographic model of time. Zeno's paradoxes have been expanded through

the ages, leaving us answerless as we were centuries ago. "Cinema, the time medium" -- is this an answer or a furthering of the endless question. .

A proposition: "Non-temporal cinema and 'memory'" is a valid thematic area of cinema studies. I am designing a graduate level course which deals with this apparently paradoxical theme. This would be a two semester course; the problems are profuse and the readings are somewhat dense. The whole cinematic history of time questioning would have to be experienced and discussed.<sup>15</sup> Entire sessions of class time would have to be devoted to various contemplative adventures: imagining shapes rotating in mental space; conjuring up, in fullest detail, specific past memories (environments, fantasies, intonations of words spoken blandly by peers, etc.); making up sentences in vocabularies without syntactical rules; time-lapse imaging; forming holographic views of nth dimensional as well as banal (perhaps even slightly perverse) abstractions; etc. What I have mentioned are conventional introspective tasks in certain legitimate disciplines; they perhaps seem "rare" in a "cinema studies" curriculum. But a question such as "Is the image you see when looking into a mirror a memory?" is valid, in a reflective art such as cinema. This outlook may not conform with present cinema curriculums, but I see no reason why questions rather than answers cannot form the highest levels of what we want to call an Art.

What is being argued for is an educational milieu which allows for and encourages a synthesis of rigorous thought and independent inventiveness -- a seriousness free of dogmatism. The "optimal student" is one who will graduate in possession of necessary technical and theoretical skills without being bound by them, who will utilize these skills as tools and not as ends in themselves. This intelligent and imaginative student has as much confidence in his/her sense of self as in the contents of his/her education.

1. In my view, "paintings" (and other like creations which are usually regarded as "static") are, in their making and our perception of them, respectively and then transactionally, time overlays and time expanding and then do classify as "changing," "dynamic."
2. I am indebted to both Dr. O'Grady and to film critic and film educator Ms. Regina Cornwell for their careful reading of the first draft of this paper and for their most helpful suggestions in making its final form coherent.
3. It should be pointed out that there exist strong criticism of this usage; Hollis Frampton and Annette Michelson make convincing arguments for the use of "film" over "cinema" when discussing certain modes of independent filmmaking (Frampton, "For a Metahistory of Film," Art Forum, September 1971; Michelson, "Paul Sharits on the Critique of Illusionism," Projected Images, (Walker Art Center, 1974). "Cinematics," because it is derived from "cinema," which refers more to film's illusions of movement than it does to the immanent tangibilities of the film object, may not reflect well enough the ontological and/or epistemological orientations of the filmmaking which I wish to portray. Yet, I have not found a term which comfortably replaces "cinematics"; words such as "filmatics" seem somewhat clumsy. Also, my approach does not strictly deny the reality -- in consciousness -- of film's illusions of motion and spatiality.
4. Roman Jakobson, "Linguistics and Poetics," in T. A. Sebeok, ed., Style and Language (M.I.Y., 1960).
5. Richard Macksey and Eugenie Donato, "The Space Between - 1971," in The Structuralist Controversy (Johns Hopkins, 1972).
6. Nicolas Ruwet, "Linguistics and Poetics," *ibid.*
7. Rosalind Krauss, "Problems of Criticism, X: Pictorial Space & the Question of Documentary," Art Forum. (Nov. 1971).
8. Annette Michelson, "Art and the Structuralist Perspective," in The Future of Art (Viking, 1970).
9. Frank George, Models of Thinking (George Allen and Unwin Ltd., 1970).
10. G. J. Klir, An Approach to General Systems Theory (Van Nostrand, 1969).
11. Texts which proved helpful in comparing such ordered spatial and durational metrics were John Elderfield's "Grids" (Art Forum, May 1972), Mel Bochner's "The Serial Attitude" (Art Forum, Dec. 1967), John Coplan's Serial Imagery (Pasadena Art Museum, 1968) and M. Tribus and E. C. McIrvine's "Energy and Information" (Scientific American, Sept. 1971).
12. Other texts useful in pursuing structuralist analysis are: R. Barthes' Writing Degree Zero and Elements of Semiology; R. and F. DeGeorge's The Structuralists from Marx to Levi-Strauss; J. Ehrmann's anthology, Structuralism (particularly Sheldon Nodelman's "Structural Analysis in Art and Anthropology"); R. Macksey and E. Donato's The Structuralist Controversy; Jack Burnham's The Structure of Art; and, Michelson's "Art and the Structuralist Perspective" in the Solomon R. Guggenheim Museum publication On the Future of Art.

13. Quentin Lauer, Phenomenology: Its Genesis and Prospect (Harper, 1965).
14. Readable and applicable texts for such research and experimentation include: Robert Ornstein's anthology The Nature of Human Consciousness (Viking, 1974); Lloyd Kaufman, Sight and Mind (Oxford, 1974); Barbara Brown, New Mind, New Body (Harper and Row, 1974).
15. At the onset of the course, three provocative essays could frame the issue: Jorge Luis Borges' "A New Refutation of Time" (in A Personal Anthology); Hollis Frampton's "Eadweard Muybridge: Fragments of a Tesseract" (Art Forum, March 1973. Other texts could be: W. Gray Walter's The Living Brain; L. Wittgenstein's Remarks on the Foundations of Mathematics; J. Piaget's The Child's Conception of Time; Husserl's The Phenomenology of Internal Time-Consciousness; The Philosophy of Time, edited by R. M. Gale; R. Ingarden's Time and Modes of Being; B. J. Whorf's Language, Thought and Reality; R. E. Ornstein's On the Experience of Time.