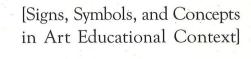
AESTHETIC & COGNITIVE PERCEPTUALISM



JARMO VALKOLA



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[Signs, Symbols, and Concepts in Art Educational Context]

JARMO VALKOLA

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Dedicated to my family.

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[Content]

Perceptual Processes

[7]

Cognitive Modulations

[12]

Thinking Inside Art Media

[15]

Aesthetic and Artistic Values

[19]

Aesthetic Scanning

[22]

Visual Transfering

[26]

Memory and Mediations

[31]

Perceiving Actively

[37]

Tarkovsky's Time and Space

[43]

Resonances of Experience

[48]

Transfigurations

[53]

Presentations of Visual Life

[55]

Elemental Compilations

[59]

Tension Points

[61]

Meanings and Textures in Cognitive Perception

[64]

Visual Sensitivity

[72]

Landscape in Angelopoulos's Films

[76]

Connecting Issues

[81]

Varieties of Visual Attention

[83]

Formal and Structural Visions

[87]

Pictures, Symbols and Signs

[93]

Symbolic Possibilities

[95]

Modes of Access

[97]

Perceptual Specifications

[102]

Descriptional and Other Values

[105]

Assembling Visualities

[110]

Conceptual Dimensions

[119]

Connotations

[126]

Notes

[134]

Selected Bibliography

[147]

[Perceptual Processes]

In science new facts generate new hypotheses, so, the essence of science creates a continuous struggle for corrections and revisions, and, also, science is a struggle between competing theories. Each one of the sciences investigates certain groups of phenomenons. In real world these phenomenons are interacting with other phenomenons. All the sciences are in a way or another closely interrelated, and they combine a historically changing system. The unity and interaction of sciences will reflect the objective togetherness of them. The reality has dialectical connections, and one of those connections is called art. And it is not true that science arrives at one answer, although elementary science may give this kind of impression. As the work on the philosophy of science has shown, it is a profound mistake to think of science as beginning from a kind of theory-neutral observation.1 Rather, science is saturated with theory, or shall we say that theory is saturated with science, so, that the most realistic way to see the transition from one view of, say, gravity to another is as the replacement of one battery of theoretical concepts by another. It is the question of paradigm shifts.² What distinguishes the work of different scientists is not what they have done, but merely the theories they have brought to bear through their experiments, ascertaining what actually is the case. Especially then, when the theories and observations are concept-mediated. When one thinks about the state of an individual science and its development, one has to think of it in relation to the essential changes in the contemporary system of sciences, and how they are related to the contemporary culture. It is most typical to our times that none of the sciences can fruitfully develop without leaning into the other ones. The most progressive scientific thinking is bound to develop there, where scientists are able to go beyond their own limits and specialities, and create something new by combining different methods and other aspects. For example, in art education it is always necessary to point out the real paradigms of its scientific nature, and the visions of its future. When scientific research aims to benefit the methods from different sciences, one of the problems deals with how to combine them together. That is why it is necessary to have a continuous debate concerning the different methodologies, and the basic philosophies behind them.

The concept of *criticism* is one widely used. Criticism is a kind of noticing, the recognition of aesthetically relevant (or other) features of artworks.³ If criticism is a kind of noticing, then it does not follow that there are general rules applicable across categories of works of art, nor that there are any otherwise specifiable foundations upon which critical judgement is based. One notices features of aesthetic (or other) value, and one learns to do so because one has an appropriate background in the art. So, to take criticism as a kind of noticing is to reject a view of criticism as somehow approaching works of art with no preconceptions, or with no peripheral knowledge

and experience of the critic. It is a question of idea of criticism as a *perceptual process*. The aim of criticism is to understand or to grasp the meaning of the work of art.⁴

Criticism is, in an interesting sense, a perceptual process. By this is meant that criticism is not just the application works of art of rules of prespecified criteria. Criticism is surveying of features of the work in question. Criticism is also a matter of scrutiny. This kind of thinking amounts to the idea that criticism consists on scrutiny of the work of art. And this kind of view conceives of scrutiny as an essentially perceptual process. The perceiver brings in general truths about the work of art and knowledge of some of the prevailing conventions of art. The critic brings with him a great deal of information external to the particular work under scrutiny.

These levels might be general truths about the world, and art world, prevailing conventions of art, and so on. The internal truths of a single work of art must be gained from looking at the work. This kind of contrast between the internal and external is central to the scrutiny view of criticism. So, the internal truths passing into critic's cognitive stock must go through perception. The critic may understand things, and the internal truths of the work, but he or she must acquire that understanding by looking at the work. The spectator's role involves perceptualism. Art-critical language describes the structures of a work of art, so, a critic must be perceptive of the structures inherent in individual works of art and she must be able to create enough verbal or other kinds of comments to describe what she or he has been

perceiving. The aesthetician aims to describe the structures, style and meanings implicit in many works of art. She may do this by modifying the procedures. Cognition means applying the knowledge that enables one to understand the perceptions.

In general sense, there are two main sources of information that can be used in order to perceive the external world. One consists of the currently available sensory input, and the other consists of relevant past knowledge and experiences stored in the brain. Perception consists mostly in the picking up of information, and understanding things requires knowledge of the world. As E.F. Kaelin has shown, the technique of consciousness modification as a means of eidetic intuition is not without parallels to empirical generalization over a range of observational data. In referring to Maurice Merleau-Ponty, Kaelin thinks that the we can start with a single example and describe the structures of meaning implicit in our consciousness of it, or we begin by collecting many similar examples and abstract the similarities or family resemblance's for naming as universals.8 For Merleau-Ponty resemblance is the result of perception because vision is not the metamorphosis of things themselves into the sight of them; it is not a matter of things belonging simultaneously to the huge, real world and the small, private world. It is a thinking that deciphers strictly the signs given with the body. The mental image, and the clairvovance which renders present to us what is absent ... it is still a thought relying upon bodily indices ... which are made to say more than they mean.9

To understant, for example, how objects are perceived it is necessary to appreciate how the sensory inputs of stimuli are read as evidence of objects and where they lie in surrounding space. This ability is in many ways the most remarkable that the higher organisms ever accomplish. The fact that we perceive objects from stimuli without even seeming to try is extremely misleading, and in fact it requires computations by neural mechanisms which at present can only be carried out very inadequately by the most powerful computers. When objects change in position, or rotate to present a different view, they provide very different stimulus patterns, yet, remarkably, they are still seen as the same object. This is accomplished visually in part by perceptual selection of invariant features, such as corners, whose retinal images do not change much with changes of orientation.

Understanding works of art is centrally a perceptual process than an inferential one. There is no significant step between how we perceive the work, and how we understand it. Understanding is rooted in scrutiny of the aesthetic surface of the work. Perception supplies premises for an inference of the meaning of the work of art. A certain cognitive stock allows the construction of critically relevant evaluations, from which the judgement of meaning can be deduced. The arts are cognitive and a matter of active thinking. The symbol system approach to cognition identifies the different arts as each being a different symbol system, and thinking in the arts as processing, or conducting operations on, the symbols of one of these systems. This establishes the arts as *cognitive*.

It also establishes them as unique because each art medium is a different symbol system, and therefore thinking within each symbol system is a unique kind of thinking, although they might overlap.

[Cognitive Modulations]

Over the past 30 years cognitive science has revolutionized our understanding of mental processes. At the heart of this discipline is a central dogma, which plays a role analogous to the doctrine of atomism in physics, the germ theory of disease in medicine, or plate tectonics in geology. This central dogma is the 'Computational Theory of Mind': which means that mental processes are formal manipulations of symbols, or programs, consisting of sequences of elementary processes made available by the information-processing capabilities of neural tissue. 10 The computational theory of mind has led to rapid progress because it has given a precise mechanistic sense to formally vague terms such as 'memory', 'meaning', 'goal', 'perception', and the like, which are indispensable to explaining intelligence. Dudley Andrew' touches this same regard: '... we are now witnessing American film theory audaciously tendering a psychological model, often set explicitly against psychoanalysis, labelled cognitive science.'11 A theory consists of a systematic prepositional explanation of the nature and functions of art. Related to film this means that theory plays many contingent roles in film interpretation.

As David Bordwell puts it:

"A theory can provide the critic with plausible semantic fields (for example, sexual relations as power relations); particular schemata or heuristics (for example, looking as a privileged cue); and rhetorical resources (for example, the appeal to a community holding the same theoretical doctrines in common)".¹²

Devising a theory is a process of creative imagination, much like a work of art. And like a work of art it may be arrived at by careful research followed by sudden flashes of intuition. Intuition may be how the theory is arrived at, but of course intuition does not ensure its truth, which must be tested in the crucible of experience, in which the most brilliant and imaginative theories may be found wanting. Since a theory encompasses so many more things than it was originally designed to explain, some of the events will probably be future ones, thus one function of scientific theories is to offer predictions. The success of a theory is its ability to make detailed and accurate predictions.

Nowadays also art educators are beginning to acknowledge the cognitive dimension of art and are questioning what should be taught. What can we learn about works of art and how can one make connections between information, one's own life and the world we are living in. Discipline-based approach in art education has emphasized the point, that works of art present us with intricate meanings, and to understand such meanings requires abilities to explain them. Therefore, one aim of a discipline-based art education is to develop students' ability to interpret works of art on a more

challenging and sophisticated level. Still the current ideology and practice in art education are embedded in contradictions and often appear to vacillate between modernist and postmodernist theories of art. Many art educators continue to use modernist works of art from which to teach. It is due to the easiness to use modernist theories as a foundation and understanding of the work of art.¹³

Minds are the most complex and sophisticated systems known to exist. It is to be expected, therefore, that the concepts which we have evolved for dealing with mental processes should be among the most complex and sophisticated concepts that we possess. Given that the causal theory is correct, it is quite certain that the causal roles involved will be exceedingly complex and correspondingly difficult to spell out. What was just said about purposes, for instance, can be no more than the crudest first sketch for an analysis. It turns out, in particular, that the different causal roles which constitute different mental processes are of an interlocking sort, so that it is not possible to give an account of one sort without giving an account of others, and vice versa. For instance, purposes and beliefs involve a package-deal so that, although their causal roles in the production of behaviour are different, the one causal role cannot be described without reference to the other.

According to Rudolf Arnheim perception itself is cognitive, to see is to perform operations on visual materials. The cognitive operations called thinking are not the privilege of mental processes above and beyond

perception but the essential ingredients of perception itself. It is a question of active exploration, selection, grasping of essentials, simplification, abstraction, analysis and synthesis, completion, correction, comparison and problem solving. These are the ways how the mind treats cognitive material at different levels. Leach of these operations are components of intelligence and of perception. Take, for example, the fundamental operation of selection. If one is to select some aspect of a visual situation for attention, and for further processing, then one must select a particular shape, colour, patch, or line. The same is true of all such operations, which are thereby shown to be indisputably both cognitive and conducted from the very beginning in visual terms. That is why Arnheim called them *visual thinking*.

[Thinking Inside Art Media]

The same can be said about thinking in other media. For example, kinaesthetic thinking requires the selection for attention of particular bodily movements, and verbal thinking requires the selection of particular words and sentence structures. Thinking is the performance of these kinds of operations on the elements of a particular medium. So, if thinking is conducted in the terms of a particular medium, then to put it into the terms of a different medium is to change it. Visual thinking cannot be put exactly into words, because all translations are distortions of the original thought. That is why thought can remain true to itself only if it remains faithful to its

medium, and this is the reason for insisting that we keep kinds of thinking separate.

A generalization about sense-impressions always has to include a reference to the conditions of observation, whereas physical generalizations are quite independent of these. The sense-impressions are occasional, intermittent, variable. But the physical order is steady, continuous, reliable, ongoing ocean of reality in which from time to time, under proper conditions, droplets of sense-impressions emerge.

In Arnheim's notions related to perception, the media correspond to our sensory channels. In the case of sight, the medium is visual and in the case of hearing, the medium is sound. These are the two sensory channels that Arnheim thinks as the most important for thinking. In thinking about language, the situation is different, because there is no single sensory channel corresponding to it. Language can be spoken, in which case it is heard, or written, in which case it is seen. So, language is not so much a medium of perception but of representation, a medium in which we often speak of the visual arts as different media like painting, drawing, sculpting, etc.

According to Arnheim:

"In the perception of shape lie the beginnings of concept formation. Whereas the optical image projected upon the retina is a mechanically complete recording of its physical counterpart, the corresponding visual percept is not. The perception of a shape is the grasping of structural features found in, or imposed upon, the stimulus material... Perception consists in fitting the stimulus material with templates of relatively simple shape, which I call visual concepts or visual categories. The simplicity of these visual concepts is relative, in that a complex stimulus

pattern viewed by refined vision may produce a rather intricate shape, which is the simplest attainable under the circumstances. What matters is that an object at which someone is looking can be said to be truly perceived only to the extent to which it is fitted to some organized shape. In addition, there generally is an amount of visual noise, accompanying and modifying the perceived shape with more or less vague detail and nuances, but this contributes little to visual comprehension."¹⁵

Thinking about art media as a media of representation, one can conclude that just as perception is not a passive reception of sensory impressions, so representation is not imitating, because perception is an active search for visual structures and representation is an active search for equivalent structures in a medium of representation. This search requires active and constructive experimentation within the medium of representation. Representation is as thoroughly cognitive as is perception.¹⁶

Alfred C. Ewing describes:

"Practically no scientific or even merely common-sense predictions about our future perceptions can be made without introducing as an intermediate link between the prediction and the direct observations on which it is based the notion of a physical object existing unperceived, and practically no causal laws can be stated in terms only of actually perceived states of objects. We have thus in order to make predictions to assume at least that our experience will go on as if there were physical objects existing independently of us in the realist sense. This at least we must admit, even if we say that independent physical objects are only methodological fictions. But this itself is a very strong argument for their really existing. That experience should persistently go on as if something were true is the strongest empirical argument we can have for its really being true." 17

At the basic level the meaning of a sign is internalised by the process of perception. This is the intersection of our senses with reality-based data as information from the perceived world is registered. This include both personal observation and individual experience. Vivian Sobchack thinks that existentially embodied perception functions in a threefold manner. 18 First, perception presents itself to the world as the concrete manifestation of intentionality. It is intentionality commuted to existence through the body's presence in the world; it is the body's material presence that gives intentionality existential form as a concrete activity. And second, perception connects intentionality with the world; it points to and indicates the world's presentness to consciousness and its objective presence - a presence toward which intentionality is directed through the livedbody and its perceptive activity. Third, perception represents itself to itself and to others in the world as the existential condition and expressive convention of intentionality. As consciousness is aware of itself in existence, it is aware as a perceiving consciousness capable of perception; perception is not only intentionality prereflectively presenting itself to the world and others through its projects, but it is also intentionality reflectively representing itself to itself as consciousness and its significant experience of existence.

And further on Sobchack thinks:

"Given these three functions of perception in existence, perception as it is lived and made concrete through the body-subject can be said to originate the correlations of the sign in the most primordial and seemingly prelogical movements of its being-in-the-world. Language and communication, however, do not emerge merely because I have a body as an instrument of

perception that brings them into being. Rather I am my body. My body as lived perceptively, as engaged intentionally with the world, is already languaging and communicating by virtue of its systemic structure and material correlation with the world."¹⁹

We can categorise the world into separate objects in perception, and we can describe the world as being made up of separate objects by the words of language. It is an interesting question how far perceptual and verbal classifications into objects are the same. They are certainly similar, but there seem to be hardly enough names for the objects into which the world is divided perceptually."²⁰

[Aesthetic and Artistic Values]

Nelson Goodman considered the idea of art media as symbol systems, which differ from natural languages in that they are nondiscursive and are capable of being replete with significance. The use of these systems to create meanings is governed by rules, which are mostly intuitive and natural, but are also partly conventional. In this view, artistic thinking is the processing of the terms of a symbol system, creating significance and following the appropriate rules.²¹ Aesthetic thinking is the perception of that significance in the arrangement of those terms.

Thinking in art is the goal of aesthetic education. While aesthetics as a concept is surrounded by some ambiguity, much of it emanates from the very nature of aesthetics itself. Aesthetics deals with how perceivers

interpret the nature of art and why they respond to art as they do. Aesthetics as a philosophical discipline deals with the description of aesthetic experiences and the evaluation of reasons given for the judgements made upon them. Aesthetics as a normative science must clearly distinguish between the aesthetic and the nonaesthetic on the one hand, and the aesthetic and the unaesthetic on the other. It is obvious that the latter depends on the former, so, all the judgements depend on the exploration of the conditions under which the statements concerning the objects have been made.

Aesthetics is based on observation of the arts, and it is co-operating with the sciences. It rises into general theory from concrete works of art and historical knowledge about them. This knowledge is based on detailed observation and analysis of specific works of art with making use of all the relevant scientific techniques. In moving from the details to conclusions of philosophical generality aesthetics should continue to be scientific, objective and descriptive and draw on a wide body of verifiable knowledge on art to support its most general theories with empirical generalizations.

For example, artistic value is a constitutive, and unique property of works of art. A possession of a certain degree of artistic value seems to be a necessary condition for an artefact to be considered as a work of art. Artistic evaluation is an evaluation of an art object as art object. It tries to determine in what way and to what degree a given work of art realises the values considered unique to the given artistic genre to which it belongs. It pertains

not only to the perceptual qualities of an assessed work but also to the work's place among other similar works, and in the broader history of art. Also, artistic evaluation depends on the cultural and historical context in which the work is created, and on properties of realism, stylistic consistency, artistic conventions, formal originality, craftsmanship and vision of the world, as well as suggestive and expressive qualities, and the depth of thinking.

Aesthetic value is considered as a peculiar property of natural and cultural objects, which renders the objects capable of evoking aesthetic experiences in adequately prepared and aesthetically inclined perceivers. Aesthetic evaluation and aesthetic value seem to be very intimately connected with the aesthetic experience, which forms the basis for aesthetic valuation. Aesthetic evaluation is connected not merely to art but to all kinds of objects, which are capable of evoking different aesthetic experiences. The objects of evaluation are both the directly perceived and the imagined aspects of the object in question.

The ambiguous and problematic issues related to aesthetics emanate from variable character of individuals and human cultures generally, and the subsequent variable interpretations and meanings given to artistic phenomena. In this sense, aesthetic study deals with the phenomenological and cultural dimension of artistic experience. Aesthetics deals with the variable nature of art, and involves contested concepts. For example, Morris Weitz's theory of art as a contested concept is based on the work of Ludwig Wittgenstein who argued that no one trait can be found in common among some categories of

meaning and for some types of objects and activities that are called art. Weitz followed this and described the quest for a single theory of the nature of art as a fool's errand. No one theory sufficiently explains art for all times and all places. Artistic meanings, functions, and forms are adjustable to changing individual and social contingencies. ²² Aesthetic study can proceed from the premise that the aesthetic instructional enterprise is problematic and embedded in social implications and significance.

Meanings in a work of art are parts of its formal components, they are its system of cues for denotations and connotations. Meanings can justify the inclusion of stylistic elements which might be the focus of interest. In cinematic thinking it is possible to consider that meanings differ from one film to another. In analysing cinematic sequences it is possible to concentrate on any single element or structure that has a significant role in a work of art. All devices of the medium are equally important in their potential for building up meanings inside an artwork.

[Aesthetic Scanning]

The historical, philosophical approach to aesthetic deals with what aestheticians have said, styles in aesthetic dialogues, and schools of aesthetic thought. It offers a structured approach, closely resembling the content structure and teaching methodologies found in general education. This kind of educational and philosophical

perspective is compatible with academic rationalism, because it is an intellectualized approach to aesthetics. Aesthetics is a unique form of perception and experience, and the proponents of this approach usually believe that art can provide intense experiences that entail perception of visual and tactile qualities integral to the object being viewed. There are real differences in aesthetics concerning the works of art. Some of them are better than others, and this means something different than that a given person simply likes some works of art better than others. At the same time, I want to work toward a theory of establishing questions around aesthetics that are open and flexible. There must be room for reasoned argument concerning the relative aesthetic merit of various works of art. Aesthetic experience occurs within the perceiver and not literally in the object itself. In a cognitive framework the perceiver is active, performing different operations. A perceiver is, in a way, a hypothetical entity who responds actively to the cues within the work of art on the basis of experience, knowledge of the world, and on the basis of automatic perceptual processes. The human organism checks out the environment for information which is afterwards checked against some perceptual hypothesis. The hypothesis is then confirmed or disconfirmed. In the latter case it is possible to make a new hypothesis. Cognitive processes seek to help, fix, and frame perceptual hypotheses. They also sort and remember things.

A central difficulty in establishing a theory of aesthetic judgement is that aesthetic value seems always

to come back to experience, and experience is by its nature subjective. The primacy of aesthetic experience in establishing aesthetic value must be maintained. Great works of art are considered great, ultimately, because of the quality of the experience they are able to provide. Regardless of any formal qualities that could be pointed out in a work of art, e.g. intricate line, complex harmonies, fully-developed character, etc., if the work as a whole did not incite an aesthetic experience of a certain quality, it would not be considered a great work of art. Works of art have in common that they have been crafted, composed, designed and possibly presented by individuals, whose intent is that the work will be used as an object of aesthetic interest in some way. Aesthetic study entails developing skills that will enchance one's ability to respond aesthetically in a variety of contexts. For purposes developing aesthetic skills, one can call it aesthetic scanning.

By aesthetic scanning, it is possible to mean examination of the sensory, formal, expressive, and technical aspects of the art object in question. It is possible to use aesthetic scanning as a tool leading to heightened responses to works of art and translating into an aesthetic sensitivity to all of the visual surroundings. An expressive context of a work of art is composed of surface and depth counters, and the significance of the context is experienced as the counters fund into perceptual closure. The work of art is the object of perceiver's awareness, and aesthetic perception may take place in varying degrees of intensity.

According to formalists, in our experience and appreciation of a work of art we should concentrate exclusively on its formal aspects, not only on the arrangement, construction or composition of elements (sensual qualities or words), but also on those very sensual qualities (colours, sounds pitches, rhythms, dynamics, bodily movements). This should be so because it is only when we act this way that we value the work of art as a work of art, as an art object which is autonomous and self-sufficient. The only relevant aesthetic properties are its formal ones, they are the real unique, and truly significant for its artistic value. According to his view, all the other values are irrelevant, and if, for the better understanding of the work of art, we have to beyond the work itself, and look for historical, psychological, or other facts, the work of art must be artistically defective.²³ The aesthetic ideal is often called pure form, understood as a structure of elements combined into a unity, a whole, a construction of pure formal elements.

Anti-formalists think that in evaluating a work of art, we should take into consideration not only the formal properties of a work of art but also such elements as the ideas contained in the work, emotional expressiveness, the fidelity to the represented external reality, the depth of insight into, and an analysis of, the moral and psychological problems of man. In the reception and evaluation of a work of art, we do not limit ourselves to appreciation of its formal properties, we need also to look for possible cognitive and moral dilemmas presented in the work.

[Visual Transfering]

Raymond Durgnat writes:

"Spatial extension involves a simultaneous display, of which the film screen as a special form. This simultaneity of extension involves brain mechanisms which we don't fully understand. If it were a purely mechanical consequence of how light rays enter the eye, the eye and head movements would destabilise the world. At any rate the scene we see is stable enough to (a) be apprehended as simultaneous and (b) permit further scanning by eye movements or mental attention. It is of the essence of visual order that these scannings mix response and form with decisions which are independent of the form. If, for example, you decide to treat this printed page as a scene instead of a text (it is both), then your eye can move round it in any direction or speed you please: my form has no means of controlling your 'browsing'. However, neither the page, nor the forms of the signifiers tel quel, are very interesting visually, that is to say, most of the information lies in non-graphic associations which aren't on the page."24

Of course, it is possible to analyse one's experiences, and take a closer look on what aestheticians have said, and study different cultural definitions of art to develop aesthetic and perceptual acuity, experiences, and so on. According to this point of view, aesthetic perception is worthy of singular attention, and it is also evident that his approach accommodates art educational activities and assumptions like transfer of knowledge and skills occur from artmaking.²⁵ A central conception of cognitive art education is transfer, an ability to apply one's learning in new situations. Theoretical problems that develop form assumptions of transfer have been discussed widely.²⁶ Whether methods and exercises specific to developing aesthetic perception can maintain

integrity in art educational programs may influence whether the goal of heightened aesthetic experience is achieved.

Marjo Räsänen defines:

"When discussing the theoretical bases for assumption of cognitive transfer one needs to consider both the cognitive characteristics and processes that are considered integral to the study of art, and those that are initiated by art experiences and then later transferred to and utilised in nonart contexts. Both making and exploring art involve a form of thinking that opens the ways to multiple systems of knowing and experiencing. Thinking there is an interaction among modes of thought means that the benefits of art study go beyond their own artistic cognitive outcomes. Artistic cognition consists of constructed, visual forms that are analogous, though not isomorphic, to experience ... art study is a mind-builder different from any other subject area ... art calls for interpretation. Artistic cognitive benefits consist of abilities of translation and transfer opening up the possibilities of multiple meanings,"27

If the power and/or meaning in an aesthetic experience is to be used as a measure of the quality of an art work, the experience must be a genuine aesthetic experience as that has been defined. Sentimental experiences and trance experiences can also be powerful and carry meaning. In order to have weight for the evaluation of an art work, the power and meaning in the experience must be directly caused by the work itself, and not, for instance, the result of some chain of association for which the work was only the first link.

When attempting to evaluate a work of art based on one's experience of that work, one must be reflective, interrogating one's thoughts and feelings to be sure of their source. Without substantial self-knowledge, it is difficult, if not impossible, to know whether what one is experiencing has its origins in the art work or in one's own psychological makeup. The concept of transfer is connected to higher-order thinking, which Lewis and Smith define as a broad term including problem-solving, critical thinking, creative thinking, and decision making.²⁸

One would expect a cognitive approach in psychology to be a natural link with, for example, discipline-based art education, but it has some problems in that direction. It fits well with those who think of artmaking as a principal activity of art education and of the various media of artmaking as the disciplines of art. For it allows them to say that to learn to draw is to learn to think visually and to use the symbol system of drawing. But it is less useful to those who count art history, aesthetics and criticism as discipline of art. These disciplines use words and cannot claim to be either a medium or a symbol system. Still both the discipline-based art education and the symbol system approach share the view that art is cognitive and that its cognitions are unique. Related to this come Howard Gardner's theory of multiple intelligence. Gardner thinks that intelligence is a way of thinking determined by some combinations of Arnheim's perceptual channels and Goodman's symbolic domains, overlain with the stipulation that they are useful in socially developed practices.29

To think is to make connections. The connections of interest to the symbol systems are the internal connections between the elements of self-sufficient media or symbol systems. It legitimizes only thought that

stays within the terms of a symbol system. Integrated learning calls for connections across as well within symbol systems, whatever the result may be. Especially it is a question of connections between visual and linguistic elements. The reason is that much of the meaning of the works of art lies in their relations with the world we live in, including personal and collective purposes, the culture around us. And culture is accessible mostly through language, but the cultural network of meanings is mediated through language and behaviour. The categories embodied in language and behaviour are part of the constitution of meaning.

Through active selection individuals select information and modify it depending on their previous experiences. It needs repeated observation to make sense of all the patterns around us, and this is where perception interacts with cognition through the process of recognition, organization, and discrimination. Visual interpretation deals with both eyes and brain. What is understood is moderated by what we know or have experienced in the past and how we have made sense of these experiences and tracked them in our memory.³⁰

It has been found that the capabilities of young to discuss art have been greatly underestimated. It has also been found that with proper motivation and good strategies or through the interjection of conflicting ideas, groups of individuals without a formal educational background can deal with sophisticated aesthetic issues.³¹ There is evidence that the visual thinking of children begins as part of what has been called a pluri-

media activity.³² According to this view, when young children begin to draw, represent meaning visually, they do not make marks on paper that are intended for visual contemplation only. They engage in an activity that includes gesture, imitative noise and language, and their visual products are meaningful only in the context of the total activity. The origins of drawing are not confined to one medium. This is the fact that is relevant to more general philosophical point concerning the role of language, which is essential in connecting works of art and culture. Meaning can be internalised as is much of what is learned through visual processing of reality-based information. It can also be socially or culturally driven, which creates an externalised dimension in interpretation.

Arnheim thinks that this is because culture is irrelevant to the deepest significance of art that the different kinds of thinking should be carefully kept apart. Otherwise we might fail to grasp that significance. The meaning of a visual work should be grasped in visual terms, although there might be linguistically-based interpretation on culture, but this has been formulated in different media. The thinking that deals with visual medium, grasps its essential meaning. Still, crucial thing is that also there are two different media for thought, they can and should be constantly connected. We can isolate visual and linguistic elements in a single work, but our thinking can move easily back and forth between them. Each one of the modes has something to contribute to our understanding. Thinking, while moving back and forth from one mode to another, can make distinctions

and connections that might otherwise be impossible. There are two tracks, but one destination, which is a grasp of the meaning of the work of art.

[Memory and Mediations]

Works of art are constituted as meaningful objects by both visual and linguistic materials of thought in interaction. Both approaches are valid and necessary ones, because they are part of what creates the work of art. This is just one way to take seriously the assertion that works of art must be interpreted, because before the interpretation it exists only as a material object and not as a work of art. By placing emphasis on the ways which meaning is made and experienced by perceivers interpretation analysis deals with the reception of the work of art and its variables which is in some tension with conventional ideas of influence and effects. Interpretation brings into focus a range of issues to do with the process of mental imagery and mediation.³³

This process is essential to the following lines. If thinking takes place in the realm of images, many of these images must be quite abstract since the mind operates often at high levels of abstraction. In Chris Marker's film *Sunless* (Sans Soleil, 1982) the structure is mosaic. It is not only a question of images and what might link them, but a question of spaces between the images, relations between images in space and time. The whole of a mosaic is almost invariably embedded in a larger architectural and geographical whole. Free-floating images and sounds

connect different cultural manifestations, rituals and practices conjuring various time levels. For Marker it is impossible to reconcile the realist status of the images with their fluctuating status in time. Words and images are laden with meaning, and the narration goes forwards and backwards, in a style that reproduces associative thought processes. Film narration is an economic and effective system, which balances familiar elements of meaning against the unfamiliar; it moves forward by a succession of events linked in a causal chain.³⁴

Humans have the capacity to store associations among various type of information. The fact that we remember where objects belong in a room demonstrates that we store associations between object properties and spatial properties. Location information must be associated with shape information in memory, so, learning spatial routes depends on association storing.

Stephen M. Kosslyn has argued that a distinct structure called associative memory, stores these associations. According to Kosslyn the contents of associative memory are more abstract than those of the modality-specific pattern activation subsystems; associative memory not only stores associations among individual perceptual representations, but also organizes "conceptual" information that may not be directly derived from the senses.³⁵ During object identification, the goal of processing in associative memory is to select the stored representation that corresponds to the stimulus ... and if the representation is activated strongly enough, the object is identified.³⁶ Kosslyn hypothesises

that object and spatial properties are matched in parallel to those associated with stored representations of objects. An object will be identified only when there is a good match between the input properties and the properties associated with the object in memory.³⁷

We have defined mental imagery as a form of experience, but, of course, evidence for the occurrence of any experience is necessarily subjective. Because of this, some authors, most notably the arch-behaviourist J.B. Watson, have cast doubt on the scientific status and even the existence of imagery. However, if imagery serves certain functions in our mental life (as suggested above) then perhaps some objective validation and study of it might be possible through the study of the performance of these functions.³⁸ In the light of this, some authors like Kosslyn, prefer an alternative definition of "imagery" to that given above. Instead of understanding it primarily as a sort of experience, they prefer to view the term as referring to the particular type of cognitive process or "underlying representation" that is involved in these functions. These representations or processes are generally understood to be such that their presence or activity can be consciously experienced as imagery in our original sense. Many cognitive skills related to film viewing are conscious processes when we, for example, struggle to understand the meaning of images and sounds. They are important processes because it is there that the work of art can challenge most powerfully our habitual ways of perceiving and thinking, and can make us aware of our learned ways of coping with the world.³⁹

Kosslyn thinks that data from which images may be constructed are stored in long term memory in the from of deep representations, which are not directly available to consciousness. They are analogous to the files in which data is saved by a computer graphics program, and on the basis of which actual, viewable pictures are constructed on the computer's monitor. He thinks that quasi-pictures or surface representations are constructed on the basis of the information in deep representations. This construction take place at a functionally defined neural locus called visual buffer. Once the quasi-picture is established it is available to consciousness as an image, and, furthermore, information that was merely implicit in the deep representation can be extracted from it by postulated mind's eye function. Visual buffer is a stage in perceptual information processing, and it is composed out of the several retinotopic maps of the brain's occipital cortex. 40 It is useful to note that images of Kosslyn's theory are quasi-pictures or functional pictures rather than pictures in a literal sense, because the array representation in the computer, and in the brain, is not actually visible. The real model for the mental image is not the screen display but the underlying array representation in the computer's memory.

D.W. Hamlyn writes in In & Out of the Black Box: On the Philosophy of Cognition:

"But memory is a much more complex phenomenon than that. It is easier to make sense of what one perceives if it is familiar, or if that kind of thing is familiar, but what is involved in finding that thing familiar and finding that kind of thing familiar may be quite different. A further point is that one may find

something familiar without any explicit recollection of when one experienced it or something like it before. A theory that connects memory essentially with information storage is of a part with a memory theory based on the idea of memory traces. That is to say that it presupposes the setting up and maintenance of some state of the system which has its effects upon other states of the system."⁴¹

Richard L. Gregory thinks that memories are similar to perceptions, as we experience the present with the senses:

"I argue that perceptions are hypotheses of the present and immediate future. Like perception, memory depends upon gap-filling, and guessing from inadequate (stored) data. It seems appropriate to suggest that memories are hypotheses of the past. They are thus closely related and linked to perceptions."

Memories are bits of the past, and on this account, they are not links with reality, they are samples of past reality, which thus in some sense still exists. Gordon Rattray Taylor thinks that "in general the different components of memory lead to one another and we pursue elusive memories by exploring the associations which we do recall." And further on, he thinks that "memories are marvellously cross-indexed."

"Sometimes meeting an old acquaintance after many years will bring memories flooding back; sometimes a smell will do it; or, as in the instance made famous by Proust, a tiny incident such as dipping a cake in tea. But usually these hypermnesic records seemed to be formed during or just before an emotional stress. Details which one was not even aware of perceiving at the time come back." ⁴⁵

It is well known that we can only remember a small number of unrelated items in immediate memory (something between five and seven), and in order to remember a larger number of items, they must be committed to more permanent storage in an encoded form (i.e., in an abstracted, symbolic or reduced form). Julian Hochberg thinks that because the succession of our eye movements is often quite rapid (about 4 per second), an observer will normally make more fixations during the inspection of a single scene than he can hold in his immediate memory. That is why some parts of his or her perception of the scene must draw on encoded recollections of his earlier glimpses.

What memory chooses to remember is a central theme in *Sunless*. Memory is the bridge between space and time. There are many moments in Marker's film which are described as being among those memories whose only function is to leave behind nothing but memories. Marker thinks through his images and sounds that the different concepts of time is the great question of the century, a belief endorsed by Paul Virilio. According to this belief we live in a world of intensely tiny units of time. The real world and our image of the world no longer coincide.⁴⁷ Part of the intention of *Sunless* is to illustrate Virilio's theory and to show how it can also be applied retrospectively. Marker's territory is global and far-reaching.

Like Marker's earlier films *Sunless* is a hybrid combination of nouveau roman and ethnographic documentary. It defies boundaries, and resists categories because it always seems to be above them. It embraces Marker's concern for the interface between real and imaginary, history and memory.

In Marker's films anything may turn up. The purely cinematographic effects not only accentuate the

individuality of poems, but also punctuate the chain of impressions with a series of digressions, bits of nonsense, jumps in time and space, all following the threads of thought. In Marker's films the dramatic unity comes through commentary, because it expresses the governing ideas, linking, propounding, explaining, giving shape, and creating counterpoints in elusive balance with the images. The language acts as a soundingboard for his inquiring camera, bringing an element of distantiation into his works, and employing fusions of text and image. To challenge logic through the paradox of time is not a simple matter. Marker has brought it to almost classical elegance, a perfect structuring and control of the film's mechanism, and intelligently unconventional handling of fiction and documentary elements.

[Perceiving Actively]

A theory of spectator's activity rests upon the general theory of cognition and perception. According to cognitive point-of-view, perceiving and thinking are active, goal-oriented processes.

As David Bordwell defines:

"In general, cognitive theory wants to understand such human mental activities as recognition, comprehension, inference-making, interpretation, judgement, memory, and imagination. Researchers within this framework propose theories of how such processes work, and they analyse and test the theories according to canons of scientific and philosophical inquiry. More specifically, the cognitive framework of reference posits the level of mental activity as an irreducible one in explaining human social action. Like most strands of contemporary film

theory, cognitive theory rejects a behavioristic account of human action. Classic behaviourism insists that human activity can be understood without appeal to any 'private' mental events. By contrast, cognitive theories hold that in order to understand human action, we must postulate such entities as perceptions, thoughts, beliefs, desires, intentions, plans, skills, and feelings. That is, there is a gap between intelligible and intentional human action and the physiological mechanisms that execute it. According to the cognitivist tradition, this gap is filled by mentation of some sort."

In the context of film theory cognitive film theory is coming down firmly on the side of science and evolutionary naturalism rather than the postmodern scepticism. Cognitivists oppose both the bizarre program of Lacanian psychoanalysis and Althusserian semiotics, although the cognitive approach is not a uniform school or theory. For example, Joseph D. Anderson's particular brand of cognitivism embraces epistemological and perceptual realism, while David Bordwell's thinking goes together with constructivism, and Noël Carroll underlines logical argumentation.⁴⁹ Anderson argues that science, while a human activity and thus imperfect, nonetheless provides the best methodology for investigating the issues of film theory and psychology. Anderson's theory is ecological after the work of perceptual psychologist I.J. Gibson, who claimed that all human capacities for perceiving our world are rooted in our unique biological evolution as a species. The perceiver's psychological capacities evolved over the course of million of years, and it is these ancient capacities to which the filmmaker must appeal, and to which films and film techniques often conform. Hollywood filmmakers, through years of trial

and error, discovered how to make their products accessible to individuals across economic and class boundaries and across national and cultural boundaries as well.⁵⁰ When we consider human capacities within the context of human evolution, we quickly realise that our capacities exist within boundaries, and seldom if ever can those boundaries be overridden by a transitory cultural fad.⁵¹

Anderson downplays the influence of culture in the interaction with films, but he does not deny it. He defines a film as a surrogate environment that engages us in some of the ways the natural environment does, by offering affordances. An affordance is a potential relationship with our environment. Elements of the natural world have significance for us in relation to our needs and desires: our interaction with our environment is a matter of seeking out those elements that are relevant to our goals. When confronted with a film or with a situation in the actual world, we respond through an active process of schema and exploration. This response, however, differs in accordance with degrees of learning and experience. Two persons looking at a chessboard may see radically different affordances if, for example, one is a seasoned player and the other in unfamiliar with the game. Thus perception is a matter of selection and attention, and an affordance, as a relationship between us and our environment, can be enchanced or changed by learning. While our perceptual and cognitive capacities are universally human, culture may influence the way we use these capacities. So, it is not a question of explaining the relationship between biology and culture, but in

demonstrating how universal biological capacities determine how films are viewed and made.

Bordwell believes that film has narration but no narrator, because in watching films, we are seldom aware of being told something by an entity resembling a human being. Therefore film narration is better understood as the organization of a set of cues for the construction of a story. This presupposes a perceiver, but not any sender, of a message.⁵²

As Carroll thinks, the narrative intelligibility of a film is a function of the co-ordination of the large-scale, erotetic structure with processes of visual narration such as variable framing.⁵³ The erotetic structure puts in place a range of audience expectations and the variable framing saliently poses, sustains, and answers the questions of the erotetic structure, generally by reframing events in such a way that what is most relevant to the presiding questions of the ongoing story is brought to the spectator's attention first. Erotetic narration, in co-ordination with variable framing and the other visual devices for controlling the spectator's attention, gives the events and actions portrayed in films an unaccustomed intelligibility and coherence when contrasted with the events and actions generally encountered in everyday life.⁵⁴

Carroll speaks of recognizability: a film image represents x, and, when it is successful, the spectator recognizes x in the representation. The factors involved in securing this recognition are in the domain of perceptual psychology. ⁵⁵ Carroll thinks that pictorial representation differs radically from linguistic repre-

sentation. The capacity to recognize what a picture depicts emerges in tandem with the capacity to recognize the kind of object that servers as a model for the picture. The reciprocal relation between picture recognition and object recognition explains how it is possible to acquire detailed visual information from pictures.⁵⁶ The capacity to recognize what images are about has evolved with the perceiver's capacity to recognize objects and events. The perceiver uses viewing skills that are learned in encounters with other works of art and in everyday experience. The grounding of an analysis can be based on historical context and different concepts of norms and deviations. Backgrounds are important because we see films within the larger context of prior experience. When we watch an aesthetic film, we perceive it as deviating from reality, from other works of art, and from practical usage in certain distinct ways. The films adherence to and departure from its background norms are the subjects of the perceiver's work, and the historical context provided by the backgrounds gives cues for constructing an appropriate method.

Carroll thinks that, for example, variable framing in film is achieved by moving camera closer or farther away from the objects being filmed.⁵⁷ "Cutting and camera movement are the two major processes for shifting the frame: in the former, the actual process of the camera's change of position is not included in the shot; we jump from medium-range views, to close views, to far-off views with the traversal of the space between excised. In camera movement, as the name suggests, the passage of the

camera from a long view to a close view, or vice versa, is recorded within the shot. Reframing can also be achieved optically through such devices as zooming-in and changing lenses."58

Anderson applies his theoretical approach to various elements of film, including visual ones, sound and image, continuity editing, diegesis, narrative and character. In each case, it is a question of how human biological capacities and adaptive strategies are used in viewing films. For example, he argues that neither persistence of vision nor Max Wertheimer's phi-movement adequately explain the illusion of movement in film, instead he appeals to flicker fusion, the fact that our visual system simply fails to distinguish small frame to frame changes an a movie from continuous changes that occur in real motion in nature, resulting in the former being processed by the network of the visual system as real motion.⁵⁹

Anderson thinks that in perceiving illusory depth on the film screen, we make use of strategies also used in real-world perception, such as motion parallax, texture gradients, and perspective. For example, continuity editing follows rules of thumb grounded in rules used in the human visual system. Pictorial continuity is not bound by the culture that developed it ... apart from any specific content, it can be appropriated by anyone for any purpose. Our enjoyment of visual fiction stems from our capacity for play, a universal human activity that has evolutionary value in providing cognitive and emotional practice. Our innate ability to frame different experiences allows us to separate the fictional experiences from reality.

[Tarkovsky's Time and Space]

Andrei Tarkovsky composed many sequences in his films following the European pictorialist tradition, a bit like the Greek director Theo Angelopoulos, or the Hungarian Béla Tarr, but with different mood. It is a question of relationships between performers in a film and their surroundings, which in an Angelopoulos-film deals with social matters, in a Tarr-film with expressive visuals, and in a Tarkovsky-film more with *spirituality*. Tarkovsky pushed montage beyond its subservience to discourse per se in order to dismantle the logical priorities of the dominant ideology.

In *The Mirror* (Zerkalo, 1975) Tarkovsky deploys codes conventionally used to guarantee narrative closure in cinema only to short-circuit the code end elude the formation of a definitive meaning or reference of discourse. Tarkovsky recreates memories and utilizes time frames overlapping three generations. This overlapping is created by means of quick cutting between scenes from the narrator's past.

In a typical scene, located in the time of the youth of the narrator's (a boy called Alexei) parents, his father asks his mother, "What do you want, a boy or a girl?" The image holds for a long time on the mother's face, waiting for a response. She looks offscreen in the direction of an open field; then the film cuts to a medium close-up of her grown son in another time frame, himself looking back at the camera as if to meet his mother's look across an expanse of some twenty years. Moreover, as the film cuts

from the mother looking offscreen to the shot of Alexei looking back, the meaning of the sequence moves from the depth of the diegesis to the surface of cinematic image. This shift is marked by a dramatic visual contrast: Whereas the scene between Alexei's parents was shot in colour, the image of Alexei was shot in monochrome, with high contrasts between black and white, giving an eerie, unearthly cast to that vision. The film itself answers the question his mother fails to answer by presenting the son as a fait accompli. As her look seems to meet her son's look in a different time and space, codes for organising spatial continuity between shots in the crosscut bridge the time gap in a sort of "future past tense" of cinema.

As Tarkovsky has written:

"The dominant, all-powerful factor of the film image is rhythm, expressing the course of time within the frame. The actual passage of time is also made clear in the characters' behaviour, the visual treatment and the sound - but these are all accompanying features, the absence of which, theoretically, would in no way affect the existence of the film." 61

And further on:

"I reject the principles of 'montage cinema' because they do not allow the film to continue beyond the edges of the screen: they do not allow the audience to bring personal experience to bear on what is in front of them on film. 'Montage cinema' presents the audience with puzzles and riddles, makes the decipher symbols, take pleasure in allegories, appealing all the time to their intellectual experience."

Tarkovsky moulds time according to the dictates of the film's memory, producing a film that seems to turn inward, to take the spectator inside the mind's eye of the narrator. To the extent that the force of cinematic images systemically deconstruct codes for narrative continuity, the position of the narrating mind's eye constantly shifts between various planes of film spacetime, eluding a stable hold on the events of the narration.

The movement of the narrative point of view dislocates the position of spectating eye in turn. The spectator no sooner finds a footing in the events of the fiction than the editing breaks the terms of scopic identification and opens up yet another space-time and yet another locus in which the spectator must insert himself or herself. The intrication of narrating and spectating subjectivities never quite achieves a coherent unity in the present and presence of the film image, but follows a movement without origin, present, or presence, a movement that perpetually postpones the closure of eye to an unlocatable future-past. For Tarkovsky, rhythm in the images, is not the metrical sequence of pieces, but the *time-thrust* within the frames. Montage brings together time, imprinted in the segments of film.

Pointing to Leonardo Da Vinci's portrait of a woman (shown in *The Mirror*), Tarkovsky claims that the famous painting is powerful precisely because in it one cannot find anything that one might particularly prefer, one cannot single out any detail from the whole ... and so there opens up before us the possibility of interaction with infinity.⁶³ He adheres to the same principle while showing a human face on the screen: rejecting facial expression as a way of conveying ideas, Tarkovsky attempts to reach into our innermost feelings, to remind us of some obscure

memories and experiences of our own, overwhelming us, stirring our souls like a revelation that is impossible to interpret in any particular way.⁶⁴ According to Vlada Petric this attitude relates to the concept of *la photogénie* defined by Louis Delluc and Jean Epstein in the 1920s as the most unique feature of the film medium.⁶⁵ It was an aesthetic of slow-motion and close-up, and mobility in both space and time.

As Delluc puts it:

"All shots and shadows move, are decomposed, or are reconstructed according to the necessities of a powerful orchestration. It is the most perfect example of the equilibrium of photographic elements." The artistic image suggests that pleasure in the image cannot be separated from the aesthetic, or at least from knowledge about art.

William C. Wees thinks that the concept of *photogénie* did not get to the heart of the matter, because it directed attention to the image, but not to the properties or elements of the image itself.⁶⁷ So it is a question of orchestrating all the elements of the film: narrative, actors, words, pictures music, and each aesthetic element intimately influences the meaning of every other.

Tarkovsky is dealing with the fundamental principles of the cinema, with metaphysical and ontological perspectives which give us the fascinating tremble of his visions.

As Mark Le Fanu has noted:

"His work is shaped by the sense of the duplicity of human experience - man's capacity for happiness and truth co-existing

with a knowledge of loss and imperfection. One sees this most clearly in the attitude which Tarkovsky takes towards death, on the one hand 'abolishing' it magisterially (in the marvellous poems quoted in the *Mirror* and *Nostalghia*); on the other hand, as in the Sacrifice, confronting its force as an outrage, dramatising - as no other film artist except Bergman has done-the human fear of death, the 'sickening physical hatred of extinction', death's 'unanswerable' monstrousness and mastery."

The integrity of Tarkovsky's visions comes from the material of particular objects: grass shivered by the wind (*The Mirror*, *The Sacrifice*), cloths and linen waving in the air (*The Mirror*), lights from time to time lighting up and closing down (*The Mirror*, *Stalker*, *The Sacrifice*), showers of rain, snow and whole clouds or small feathers like winged seeds from an oldlooking film (*Andrei Rublev*, *Stalker*, *Nostalghia*).

Vida T. Johnson and Graham Petrie have noted that in *The Mirror*:

"Certain scenes, moreover, introduce dreamlike elements into what begins as a realistic situation. Ignat, left alone in their apartment by his mother, has a strange encounter with two women who appear as if from nowhere and vanish equally mysteriously (yet their existence is testified to by the heat mark on the table of a cup and saucer from which one of them had been drinking). During this scene his grandmother (Alexei's mother as an old woman) appears at the door, but neither she nor her grandson appear to recognize each other! The two women appear later, again without explanation, discussing with a doctor the reasons for illness of the sick and possibly dying narrator.⁶⁹"

Tarkovsky was not the first filmmaker to invent time-based film montage. For example, Alain Resnais used similar narrative codes in *Hiroshima Mon Amour* (1959).

Following Raymond Durgnat's thinking:

"In Resnais's *Hiroshima Mon Amour* text read by Emmanuelle Riva is overlaid on a moving camera's view of Hiroshima streets at night; and the director made several essays before deciding which reading speed matched which speed of cameramovement. Only one tempo was right. In matching the curve of music with the movement in the shots, in matching the movement within the shot with the movement of the camera, the film enters artistic territory which has never been broached before and is divorced from simple realism. The cinema is arguably the only *beau-monstre* that beggars opera."⁷⁰

Tarkovsky's style takes on important political implications in the context of Soviet semiotics and politics. The problem of relations between semiotic codes and the production of internal speech in the reader or spectator claims unusual importance in Soviet semiotics, from the inaugural period of Russian formalism to the present day. Tarkovsky's style needs to be defined in a way that it can be used methodologically in two alternative directions: firstly, towards the form, and secondly, towards the content, so, it can offer an articulated account of what used to be called techniques and formal characteristics.

[Resonances of Experience]

As a continuation to that one can think that in the arts it is not the illusion as such that creates the resonance but the resonance of experience that creates the illusion. It is a coherent series of emotional stimuli - a Gestalt (writing, pictures, music) that sets up a coherent response.⁷¹

The artist starts with the awareness of a Gestalt that is cited in him through perception, imagination, thought or intuition; and proceeds to try to articulate this excitement into an original, unique whole. The artist's aim is not an abstract constructed unity such as the counters of language might easily become. That an artist tries is to create an embodiment, an organic differentiation of an original whole, and his or her method is thus nonsystematic. Discursive symbolism may have a common base with art. If so, that common base is metaphor. But they differ both in method and in direction. The more science abstracts from the concrete situation, the more it talks about nothing in particular. But the more it talks about everything in general. An inverse process occurs in art.

The more an artist succeeds in moving away from the what of things to their thisness, the more concrete his work becomes. A poem, for example, is built of words but it does not consist of them. A poem is not a discursive statement, though it may contain discursive statements. But the statement it contains are subordinate to and function for the poem. A poem is an intentional structure and what it intends is its own expressive quality. It does assert something, but what it asserts primarily is itself. It is not an actual statement about life, but a formed expression of life. The way how, for example a human face appears in close-ups transcends the common use of gaze in the dominant cinema as a vehicle for conveying rational messages, making it instead - as Vlada Petric puts it - a means of intensifying the perceiver's empathy with the character's inner world.72

And further on:

"The phenomenological signification of Tarkovsky's oneiric vision rests on an interaction between the representational and the surreal: the perceiver feels that something is 'wrong' with the way things appear on the screen, but is incapable of detecting sufficient 'proof' to discredit presented events on the basis of everyday logic." ⁷³

The structure, or organization, of perceptions cannot be given directly from the world, because what are accepted as separate objects depend on familiarity, and on learning and on use. So perception requires the activity of the mind, and it is a question of immense complexity and subtlety of the logical processing. In recent times, monistic theories have gone beyond the older forms of materialism in that they not only ascribe mental attributes to certain physical objects, but also treat these attributes themselves as physical.

Works of art exist in constantly changing circumstances, so, spectator's perceptions related to it will differ over time. That is why one can think that we cannot assume that the meanings and patterns we are interpreting are completely there in the work, unchangeable for all time. The work's devices constitute a set of cues that can encourage the perceiver to perform certain activities related to the viewing. Anyway, the actual form of those activities depend on the work's interaction with its and the viewer's historical contexts.

Minds are complex and sophisticated systems. It turns out, in particular, that the different causal roles which constitute different mental processes are of an interlocking sort, so, that it is not possible to give an account of one sort without giving an account of others, and vice versa. For instance, purposes and beliefs involve a package-deal so that, although their causal roles in the production of behaviour are different, the one causal role cannot be described without reference to the other. This reflects the familiar point that actual behaviour is always a joint product of purposes and beliefs.

As Owen Flanagan has pointed out, there is no anatomical area of the brain that plays the role of permanent memory ... there are domain-specific memory losses (losses for memory for faces or linguistic memory) that are tied to destruction of particular brain areas. But even in these cases, localisation of memory function is by domain, by memories of a particular kind.⁷⁴

And Flanagan continues:

"Consider face recognition. The metaphor of the well-run office with permanent files might lead us to imagine that what happens when one recognizes a familiar face is that my superseded and superefficient secretarial homunculus fetches my face files and searches for a match with the one before it. Since damage to the right paretal lobe can produce prosopagnosia - the inability to recognize or remember faces, possibly even to see faces as such - one might hypothesise that such damage destroys the files or the fetches. Unfortunately, no facts about the brain support this way of thinking about the process. Even for those of us with intact parietal lobes, there is nothing in the relevant parts of the brain that is anything like a full of pictures of faces I have known, nor there is any processor to play the role of the secretarial homunculus. A familiar face activates a complex but characteristic pattern of neural activity. The brain is disposed to activation of a certain sort when a familiar face appears."75

So, the memory of a face is nowhere, because memories exist as dispositions, not as permanent states or files. Memories, either inactive or active, are distributed in two ways. When they are inactive, they exist only as dispositions to activation spread throughout different areas of the brain. Remembering is the activation of the relevant populations of neurones distributed through many layers of the brain. Raymond Durgnat thinks that normally a novelist will describe a face, a voice, as a whole, or in partial detail, once only (usually the first time he describes it) or intermittently. Otherwise he restricts himself to noting only changes, special expression, etc., without re-presenting the face in full each time. But the film image normally shows the whole face in full each time. And if we think of the face as a 'semantic block', then a kind of 'block' representation takes the place of a mere evocation or thematic pickup.⁷⁶

As George W. Linden has maintained we do not see shadows moving on a strictly delimited screen, but we see a variable apparition moving in elastic space, because a film is a constantly shifting phenomenon, and a gesture without a horizon.⁷⁷

And further on he thinks:

"Our ordinary experience is constructed within a double sense of space: the sense of the relation of things to things, and the sense of relation of our bodies in this complex. We see *through* our eyes. Our ordinary experience is filtered by our bodily position, and its stance is a *privileged* position. My body is not in space in the same sense in which other things are in space. It inhabits space and is the centre of the space it radiates. My body is a constant here. In our experience of the motion picture, however, we lose this primary stance of the body. We relinquish our bodily perspective through identification with the viewpoint of the camera, and we come close to pure perception. The position of our body or its attitude toward the object before us

is irrelevant and unknown. This is why we have a feeling of disorientation ... because we literally were lost in the experience."78

[Transfigurations]

Arthur Koestler has stated:

"The mind is insatiable for meaning, drawn from, or projected into, the world of appearances, for unearthing hidden analogies which connect the unknown with the familiar, and show the familiar in an unexpected light. It weaves the raw material of experience into patterns, and connects them with other patterns; the fact that something reminds me of something else can itself become a potent source of emotion." ⁷⁹

Aesthetic inquiry consists of an examination of the nature of art and why individuals respond to art as they do based on what meanings they give to art. Aesthetics as an area of study entails an examination of aesthetic meanings. For example, art criticism is based in that analyses and evaluations of art can be tested against information on a specific work of art and from perceptual evidence. In aesthetic inquiry, statements on art are examined as to their logical and rational truth and their persuasive power.

A basis for interpretation is provided in Arthur Danto's theory of art.⁸⁰ Unlike modernist theorists, Danto thinks that the observer must attend to the non-exhibited qualities of a work. We must look not only at the relationship of elements within the work, but also beyond the object to its historical, rhetorical and philosophical contexts in order to comprehend its meanings. Danto thinks that doing so our interpretation constitutes the work of art. Danto's theoretical thinking

points out that the works of art are about something. They are created to present a view of the world and to affect our attitudes and visions of the world. Danto thinks that works of art can be thought of as an externalisation of the artist's consciousness, because we cannot overlook the fact that works of art derive their identities and structure from historical and causal matrices. Their meanings and associations are bound to the cultural framework of the time and assume causal connections with an artist environment.

The works of art embody ideas that express an age, the attitudes and beliefs that define a world by those living in that period. It is through the attributes of style and expression that the observer discovers these ideas. Further on Danto thinks that artists do not merely assert these facts or ideas in their works, because they suggest them in ways intended to transform the way the observer receives them. Art aims at some effect and transfor-mation in our affirmation of the way the world is viewed. The artist's use of rhetoric and metaphor is an attempt to get the observer to take toward the work an attitude which involves more than recognition of a truth or an idea. Works of art can cause perceivers to heighten and confirm convictions or transform their ways of thinking about their convictions. Danto contends that interpretation is puzzling to a person with insufficient knowledge. He acknowledges that at one point in the history of art, there was a complicity between artist and spectator, in which the latter was to disregard the paint and gape at the Transfiguration, to stand dumb in front of it.81

This is not true anymore, works of art have meanings that can be distinguished from those held by other cultural objects, and this opens up possibilities for talking about them. Danto thinks that aesthetic understanding is far closer to intellectual, cognitive action than to a mode of sensory stimulation and calls for an aesthetic stance as something that has to be constructed. Danto's theory of art presents a foundation for interpretation that is predicated on our understanding of art being culturally, philosophically and historically developed. That is why we must shift our conceptions of interpretation to a broader, more global approach. In this way we might have a better theory for interpreting works of art and a better foundation for teaching students to understand their meanings.

Julian Hochberg writes:

"Even pictures, though they are manmade and symbolic are not arbitrary, but share stimulus features with the scenes that they represent. Considered as symbols in a strict sense, pictures are symbols of special kind - they are *iconic* symbols, which work by virtue of the features shared with the objects and scenes they represent."⁸²

[Presentations of Visual Life]

Visual perception is not passive recording of the stimulus material, but an active concern of the mind, and reading a picture is a sequence of mental processes exactly like reading some other reality. And because the sense of sight operates selectively, the perception of different shapes consists of the application of form categories, which one

might call *visual* concepts. Visual perception is an experience of totality because cinema is a procession of images, and images are basic units of veridical perception. Dudley Andrew thinks that cinema is above all things a representation of visual life itself because it mimics the continual work of seeing by means of its own work.⁸³ Further on Andrew thinks that an image is any visual unit that sustains itself as a unit because cinema can pose questions about seeing, permitting us to reflect on the process as we undergo it.⁸⁴

The size of retinal projection varies with the distance of the physical stimulus object from the observer. That is how the distance dimension distorts the perception. An object which is actually maintaining its size may be seen by the eye as if changing it during the movement. So there are those perceptual modifications which operate and vary depending on the object's location relative to the observer. When the image of an object changes, the observer must know whether the change is due to the object itself or to the context or to both; otherwise he understands neither the object nor its surroundings. The observational object must then be abstracted from its context, and this can be done in different ways: one is perhaps the way of performing an abstraction because the observer may want to peel off the context in order to see the object as it is, in complete isolation; the other way is to observe all the changes it undergoes and induces because of its place and function in its setting.

The retina has three areas of visual perception. There is peripheral vision, basically black and white, with

dozens of rods connected to single neurones; basically all peripheral vision can handle is motion. There is macular vision, colour-sensitive, with an oval shaped area quite sharp. We use this to recognize shapes. It's quite sharp but incapable of handling tiny detail. Because of the rich colour and shape sensitivity of macular vision, a good deal of aesthetic appreciation happens here. Then there's foveal vision - a tiny pit in the centre of the retina is packed with neurones and is what we use to, say, thread a needle or see at distance. When we look, our saccadic eye movements flick around, analysing a scene or situation. Our brains combine data from the various types of vision, orient that data according to our senses of balance and other sensory input, and then what we see is the conceptualised, integrated result.⁸⁵

Russ Hanson writes:

"Seeing is an experience. A retinal reaction is only a physical state - a photochemical excitation. Physiologists have not always appreciated the difference between experiences and physical states. People, not their eyes, see. Cameras, and eyeballs, are blind. Attempts to locate within the organs of sight (or within the neurological reticule behind the eyes) some nameable called 'seeing' may be dismissed. That Kepler and Tycho do, or do not, see the same thing cannot be supported by reference to the physical states of their retinas, optic nerves or visual cortices: there is more to seeing than meets the eye-ball."

Hanson suggests that the changes of perception are, or are due to, changes of interpretation commits us to saying that there are two processes, perceiving and interpreting. Hanson relies on introspection of our perceptual processes, and he reasons that interpreting is intellectual while seeing is not supposed to be intellectual,

and that we are aware of interpreting but not aware of processes of seeing.⁸⁷

For Richard L. Gregory this seems an important mistake:

"Hanson's view is here a hang-over from stimulus-response accounts of behaviour. The crucial point is that animals, a s well as adult humans and scientists, predict from limited sensed data to situations which can be related only by kinds of inference. In fact we have every reason to believe that perceptions have their richness and integrity as well as their predictive power through inference. This is almost self-evident to the psychologist working on perceptual processes (though with exceptions), but it is anathema to philosophers seeking unadulterated, theory-free and assumption-free sensory data."

David Bordwell thinks that seeing is a bewildering flutter of impressions because the eyes fixate many times per minute, using short and fast movements, and because the eye rotates to compensate for head and body movement, trembles involuntarily, and most of the visual information we receive is peripheral anyhow. Yet we do experience a flicker or smear of percepts.⁸⁹

The processes of seeing involve many processes which could be described as interpreting, though we are not aware of these or any processes of perception. Perceptual objects are concrete objects, while the conceptual objects of science may be abstract objects. The point is that objects as perceived have *spatial* extension, and may change in time, while conceptual objects (such as numbers, the centre of gravity of concrete objects, and deep structure of the world as described by laws of physics) cannot be sensed, may be unchanging and spaceless, and yet have the status of objects in that they are public though not sensed.

[Elemental Compilations]

In cinema, for example, montage is thinking through images, because cinema is the only form of art which is a succession of images in the same space. All the other visual forms of art generally consist of one image only, and all the aspects related to editing are made inside that one image. So the composition of an image or the succession of points of interest, or the structure of the image related to looks, colours or other aspects, are organized into one image, and the eye moves in the space inside this image.

Although cinema is montage between images, the cinematic image is a compilation of different elements; thus, as in painting, there are also visions inside one single image. And the complexity of cinema is not so much based on the fact that cutting between images would replace the montage inside an image than on the fact that that we are dealing with both things at once: we are controlling the movements of the spectator's eye, and what is more important, we are controlling the movements of the spectator's thoughts inside one image, and then we put them against the following image.

But because cinema is also an art of movement, there can not be just a question of montage inside or between images, but also the vision how movement relates to the lines of the look, how it transforms and guides them. The spectator's thoughts tend to follow the line of the look, if there is a strong look; and if there is an element of surprise, then the thoughts of the spectator tend to move

with the look. Thus cutting in cinema does not happen only between the pictorial points of interest, but also according to the action lines and directions in a film. There are many things happening similarly, and no simple rules to explain it all.

Because our eyes register fine detail only within a very small foveal region of the visual field, we must learn about the visual world by a succession of glances in different directions. Such glances are made by saccadic eye movements, whose endpoints are decided before the movement is initiated (i.e., saccades are ballistic movements): where one looks is decided in advance. Therefore, the content of each glance is always, in a sense, an answer to a question about what will be seen if some specific part of the peripherally viewed scene is brought to the fovea. In viewing a normal world, the subject has two sources of expectations: (i) he has learned something about what shapes he should expect to meet with, in the world, and about their regularities; and (ii) the wide periphery of the retina, which is low in acuity and therefore in the detail that it can pick up, nevertheless provides an intimation of what will meet his glance when the observer moves his eyes to some region of the visual field.90

And related to that, Hochberg points out; "the fact that looking at static pictures is a temporal process has always been evident to students of composition, who discuss "leading the eye" in some obligatory sequence over the layout of the picture."91

Leo Braudy writes:

"But the most characteristic element in any film is the way it presents all its objects -animate as well as inanimate. In films

every object has four dimensions - the realities of length and height, the suggestion of depth, and the potentiality of significance." 92

[Tension Points]

In cinema, when thinking about interest or tension points in pictures, we can think that the spectator does not see the composition as an abstract graphic structure, because the composition is regrouped around his or her interest points, and a typical interest point is usually an interesting face or something rapidly changing inside the picture. Often the interest point is ahead of the action because the spectator is looking to see what is going to happen. In watching a scene the spectator's look covers many interest points, so one can, without moving an eye, shift tension from one thing to another. Thus one can speak about tension points within the look. When an actor is looking at the camera it is often difficult to tell whether he or she is doing it or not. And talking about eye-lines, it is difficult to trace the definitive direction of the look.

Hochberg thinks:

"From Berkeley on, most philosophers, physiologists, and psychologists had started with the assumption that we cannot account for our perceptions of space in terms of information in visual stimulation, and had gone on from there to try to discover how we made up for this inadequacy. The first real challenge to this tradition came from James J. Gibson, who started with the inescapable fact that people *can* perceive space by means of vision alone, and concluded, therefore, that some kind of information must be present in visual stimulation. The *gradient* of texture-density is a particularly promising high-order variable for this purpose. If you look straight ahead at a homogeneously

textured surface, the density of the texture does not change from one part of the optic array to the next."93

So every time an observer moves toward any rigid surface, the elements in his visual field undergo a process of expansion; and this gradient of expansion forms a pattern that will be different for each orientation of the surface, for each direction and speed of the observer's motion, and for each distance of the observer from that surface.

The cone of the look related to the world gets quite wide, and apparently the area of the sharp focus in the eye is tiny, and one of the artificial elements of the cinema is that the frame restricts the cone of the look to the rectangle of the screen. So, when you are looking to an eye, you cannot tell whether it is looking into that zone or whether it is looking somewhere else. Because the area of the eye's sharp focus is so tiny, it gives us one reason why people - in looking at moving pictures - look around within the screen. It also explains why one can shift focus in a film shot because, if the spectator is looking at a face in the background, it is possible to throw the foreground out of focus, and the spectator does not notice that it is blurred because of the sharpfocusing on the part of the screen. It is actually all in the same focus to the spectator, all in the same focal plane, but because the spectator is looking at a different section of the screen, he or she does not see it. In making a film analysis and looking at everything very closely, one can see those parts which have clearly gone out of focus.

As neurophysiological research become more and more sophisticated, the mind and brain issues will be more closely linked. Nowadays cognitive researchers are

discovering the complex interrelationships between different bodily states and thought processes. For example, the cognitive perspective tend to depict emotions as structured states, because an emotion is a combination of different feelings, changes in physiology and cognition. Emotions direct mind and body toward objects and tend also to provoke actions.

In cinematic art the Americans developed a storytelling, which was based on the dynamic thinking of the story, sharp dialogue and a plot which explains as little as possible and maximise the speed of the narrative. The story is full of surprises, swifts, little shocks. This is one point of editing, because under the Hollywood-speciality, when we are choosing the elements of the film, we leave out all other things except the ones which are definitely needed. According to that kind of thinking , it was a question of "the story point-of-view". And while we are always speaking about the story and its qualities, we omit the extent of how this kind of thinking about cinema also demands certain kind of editing.⁹⁴

"Classical editing requires so many discrepancies of scene space, graphic space, edited space, and so on, so many jumps, only subsequently explained, of scene, action and issue, so many purely provisional imputations of consequentiality, that, as psychologist Julian Hochberg remarked, it's a royal road to understanding how the mind works. And Piaget's Main Trends in Psychology leaves no doubt; thinking, from perception on up, is pluristructuralist, in co-ordinating structures (visual, verbal, acoustic, etc.) radically and systemically different from each other, sufficiently loosely and flexibly to accommodate constant 're-view' of constantly changing input. Similarly, thought is efficient when it's neither too loose to register contradictions, nor too tightly coherent to suppress competing hypotheses."

[Meanings and Textures in Cognitive Perception]

Ann-Sargent Wooster defines:

"Human beings are highly visual, and it was not until the first crude graphic display screens were introduced in the late 1960s that computers began to change our relationship to information and forge a new kind of space. Computers are largely based on the structure of the way the human brain processes information. It is one thing to understand that human memory is organized in lists and lists of lists crossreferenced by associations between them, and it is another thing to see that system on a screen modelled not on pencils and printing processes but on how a human mind processes information."

Within this world (real and unreal), the spectator can freely rearrange that information and impose new structures. Seeing ideas as visual objects changes your view of the world because "when everything is visible: the display becomes the reality." The transparency of the cinematic image and its effect upon spectator appears as if it were reality, but this appearance is actually an illusion, and the cinematic image provides an impression of reality. Following Richard Allen's thinking cinema is a form of signification that creates the appearance of a knowable reality and hence confirms the self-definition of the human subject as someone capable of knowing that reality. 98

Visual perception is not passive recording of the stimulus material, but an active concern of the mind, and reading a picture is a sequence of mental processes exactly like reading some other reality. And because the sense of sight operates selectively, then the perception

of different shapes consists of the application of form categories, which one might call *visual concepts*. In Merleau-Ponty's thinking, the cinema becomes a paradigm of gestalt phenomena, visibly demonstrating the complex organization and structure of the perceptual field. The cinema is constituting a philosophical model of phenomenological description. According to him:

"This psychology (gestalt) shares with contemporary philosophies the common feature of presenting consciousness thrown into the world, subject to the gaze of others and learning from them what it is: it does not, in the manner of the classical philosophies, present mind and world, each particular consciousness and the others. Phenomenological or existential philosophy is largely an expression of surprise at this inherence of the self in the world and in others, a description of this paradox and permeation, and an attempt to make us see the bond between subject and world, between subject and others, rather than to explain it as the classical philosophies did by resorting to absolute spirit. Well, the movies are peculiarly suited to make manifest the union of mind and body, mind and world, and the expression of one in the other."99

The cinema acts visually and, therefore, embodies and expresses intentionality in existence and at work in the world. The cinema is not merely an object for perception and expression, because it is also the subject of perception and expression. Perception is already the expression of intentionality in the world and, as such, an interpretation. The gestalt of perception is a structuring expression of intentionality in existence, and a system of engagement with the world. Perception not only engages consciousness with the world in a gestalt structure but also expresses through that gestalt the structuring activity of consciousness in existence.

As Raymond Durgnat has pointed out, the theory of visual perception as co-ordination, assumption and estimation, was gradually developed by Gestalt psychologists and their successors from about 1920, and was taken from perceptual and cognitive psychology into art theory through the 1950s. Among the most influential aspects of Gestalt psychology was an emphasis on spatial and temporal patterns as fundamental to perception. Unlike their sensationalist predecessors, the Gestalt writers recognized that stimulus variables relevant to perception need not correspond to local sensations. Spatial and temporal relationships in the inputs to the senses might explain how perception can instead be in close correspondence to the outside world. 100 This insight is also included in more contemporary approaches, in which perceptual mechanisms are seen as detecting patterns in ambient energy that carry information about the physical world. 101

The Gestalt writers emphasized the way that dots group themselves perceptually to form simple closed patterns. Once a circle, for example, is believed to be represented by a circular brain trace, they thought the physics of such supposed traces could be invoked to explain perceptual phenomena, such as sets of dots tending to form circles; for a circular trace can be supposed to have minimal potential energy and so be stable. Then nearly circular objects should tend towards perfect circularity. If, on the other hand, objects are represented by quite different shapes, then no such inference could be made. Gestalt theories advanced early

In this century to account for the perceptual phenomena described by the Gestaltists were unsatisfactory for a variety of reasons, and with the growth of behaviourism. Interest in perceptual organization waned. ¹⁰² In the 1950s various efforts to re-examine the issues raised by the Gestaltists appeared, including the information-theoretic approaches, studies of spatial configurations in display of points in motion, and studies of object perception. ¹⁰³

Recently there has been a resurgence of interest in perceptual organization in vision, and in selective attention ¹⁰⁴ Object-based theories of attention say that attention selects preattentively defined perceptual objects. Perceptual objects are formed and visual scenes are segmented and interpreted by low-level, stimulus-driven mechanisms of perceptual organization. To the extent that a perceptual object is attended, all of its attributes are also attended. The organizational principles most often invoked include proximity, similarity, common motion, and any of a number of geometric factors such as collinearity, parallelism and symmetry.

The perceptual organization theories inform object-based theories of attentional selection, because organizational mechanisms specify the perceptual objects that form the representational basis for selection. Conversely, grouping may be thought of as a natural by-product of the process of selection. Therefore there is a symbiotic relationship between theories of perceptual organization and object-based theories of attention. The distinction between stimulus-driven or bottom-up processes on the

other hand and goal-directed or top-down processes on the other plays a particularly important role in this symbiotic relationship. This distinction has long been a crucial part of theories of visual selective attention. There also evidence that attention can be directed to perceptual objects that are formed by grouping visual elements, thus supporting object-based theories of attention and verifying the vital role of perceptual organization in visual selection. ¹⁰⁵

The most notable developers in the process of turning Gestalt-thinking into art were Rudolf Arnheim, E.H. Gombrich, György Kepes and Anton Ehrenzweig. 106 For example for Arnheim "every element of a work of art is indispensable for the one purpose of pointing out the theme, which embodies the nature of existence for the artist."107 In this sense Arnheim finds symbolism even in works that, at first sight, seem to be little more than arrangements of fairly neutral objects. Already Hugo Münsterberg in his book The Film: A Psychological Study (1916) stated the importance emotion in the photoplay. He considered that spectator emotions are first of all identical with the emotions of the protagonist and in another matter they may be entirely different, perhaps exactly the opposite to those which the figures in the play express. From this stems the spectator's independent affective life. According to Münsterberg emotions bring vividness and affective tone into the spectator's grasping of the films action. 108 Films are designed to interact directly with the mind of the perceiver, and how the human mind works, is a common ground and a shared

confidence related to the scientific method of cognitivism. Behind all this kind of thinking is the assumption that the universe is real, and that we know it because our knowledge is derived from observations (direct or indirect), and carried out in ways that are open and repeatable. The meaning of a perceived event changes the pattern of possibilities for future action, and according to Donald MacKay meaning is the selective function on the range of the recipient's states of conditional readiness for goaldirected activity; so the meaning of a message to you is its selective function on the range of your states of conditional readiness." 110

Defined in this way, meaning is clearly a relationship between the message and the recipient rather than a unique property of the message alone.¹¹¹ And MacKay continues to suggest that states of readiness are for organism's large numbers of conditional probabilities. Asking a question is a means of changing the conditional probabilities of the questioner's states of readiness.¹¹²

David Bordwell has made differentiations between four kinds of meanings: referential, explicit, implicit and repressed or symptomatic meanings. In searching for referential meanings the perceiver may construct a concrete "world", in constructing the film's worlds, the spectator draws not only on knowledge of filmic and extrafilmic conventions but also on conceptions of causality, space, and time, and on concrete items of information. In explicit meanings the perceiver may move up to a level of abstraction and assign a conceptual meaning or "point" to the fabula and diegesis she

constructs. In implicit meanings the perceiver may also construct covert, symbolic or implicit meanings, units of which are commonly called "themes", or problems, issues, questions and so on. The perceiver may also construct repressed or symptomatic meanings which are like disguises, they may be treated as the consequence of the artist's obsessions. 114 This means that meaning-making is a psychological and social activity fundamentally akin to other cognitive processes. The perceiver is not a passive receiver of data but an active mobilizer of structures and processes which enable her to search for information relevant to task and data at hand. In watching an image, the perceiver identifies certain cues which prompt her to execute many inferential activities, ranging from the fast activity of perceiving apparent motion, through the more cognitive processes of constructing links between scenes, to the still more open process of ascribing abstract meanings to the work of art.

R.L. Gregory writes in The Intelligent Eye:

"Perception is not a matter of sensory information giving perception and guiding behaviour directly, but rather that the perceptual system is a 'look up' system; in which sensory information is used to build gradually, and to select from, an internal repertoire of 'perceptual hypotheses'." ¹¹⁵

The input provided by the retina is organized spatially, so, shape information is intertwined with information about spatial properties such as location, size, and orientation. The visual system must identify objects by comparing patterns within the input with patterns stored in memory, but variations in location, orientation, and size are generally irrelevant to an object's identity. If

the final product of visual processing is to be used in higher-level reasoning and problem solving, then information about the identity of the represented objects and their spatial properties must be factored apart. However, the findings from a number of visual experiments indicate that some visual processing tasks rely on representations in which information about spatial properties has not been factored apart from shape information. Spatial properties play an important role in the organization of these image representations. This is why these representations are called images.

The size of a retinal projection varies with the distance of the physical stimulus object from the observer. That is how the distance dimension distorts the perception. An object which is actually maintaining its size may be seen by the eye as changing it during the movement. So there are these perceptual modifications which effect and vary depending on the object's location relative to the observer. When the image of an object changes, the observer must know whether the change is due to the object itself or to the context or to both; otherwise he understands neither the object nor its surroundings. The observational object must then be abstracted from its context, and this can be done differently: one thing is perhaps the way of performing an abstraction because the observer may want to peel off the context in order to see the object as it is, in complete isolation, and the other way is to observe all the changes it undergoes and induces because of its place and function in its setting. 116

[Visual Sensitivity]

For a stationary eye and a stationary observer, the image of an object at any point in space is simply projected to some point on the retina and thence to the cortex. Given the position of the point in the retinal image, it is not difficult to understand how we manage to perceive the object's direction in space. The perceiver's body is in almost constant motion in the world, his or her head is in motion with respect to his or her trunk, and his or her eyes are in motion in his or her head. Julian Hochberg thinks that moving observers need two kinds of eye movements to look at moving (or stationary) objects in a three-dimensional world:

"Compensatory movements, smoothly and precisely executed, permit the eye to remain fixed on some point while the body moves. In addition, we have skilled pursuit movements that swing the eyes smoothly to keep them fixed on moving objects, and the adaptive mechanisms of accommodation and convergence that bring any object to which we are attending into clear focus and central location on the retina. In addition to these saccadic eye movements bring the fovea from one point in the visual field to another, in rapid jumps that take only about 1/20 of a second to execute."

Visual sensitivity is reduced during saccades so that one's intake of visual information from the environment is largely restricted to fixations. Recent evidence suggests that some cognitive processes may be suppresses during saccades as well, although the idea that cognitive processing is suppressed during saccades may seem very implausible because people are not aware of pauses in mental activity during eye movements. Saccade

durations are typically very brief, however, so any disruptions that might occur might bot be noticed, just as the disruptions in visual input that accompany saccades and eyeblinks are usually unnoticed. Perceptual processes, such as those required for stimulus encoding, are suppressed during saccades, while postperceptual processes such as memory scanning and response selection are not. That is why the normal vision would be impossible without the co-operation of muscular actions, and according to Hochberg the perceiver's perceptual system must in some fashion "make allowances" for the eye movements they produce before it can assign spatial meaning to any stimulation of the retina. 120

So, for example, the perception of movement depends upon certain physical condition. The movement must attain a certain velocity before it is perceived as movement. The contrast between a moving object and stationary background makes the movement clearer and more obvious. Perception of movement is not produced primarily by the movements of the images of objects across the retina, because the eyes are also moving to and fro in the head, and thus images of stationary objects are constantly moving across the retina.

We need the kind of eye movements that Hochberg mentioned earlier to keep everything in balance. That is why M.D. Vernon asks: "Why is it that our surroundings appear stationary although their images are always moving on the retina?" It has been hypothesised that sensations to the brain from the muscles which rotate the eyeballs change continuously as the eyes move, and

that these changing sensations offset and compensate for the changing retinal impressions. Another explanation is that the changing retinal impressions are compensated for in some way by an awareness of the motor impulses proceeding from the brain to the eye muscles which cause them to move the eyeballs. Neurophysiological evidence suggests that our cognitive architecture includes both representations of the visual appearance of objects in terms of their form, colour, and perspective and of the spatial structure of objects in terms of their threedimensional layout in space. 122 Whatever the explanation, it seems that we are able to differentiate between movements of the retinal images caused by movements of the eyes, and movements within the retinal image caused by movements of objects in relation to their surroundings, which appear stationary. 123

There is a complicated inter-relationship between the perception of the movement of the surroundings and the movement of the body, which is displayed in what is known as 'parallactic movement'. For example, as we move forwards in a car along the road, the retinal image of the landscape in front of us expands, flows around on either side of us, and then contracts and becomes sucked in behind us.¹²⁴ This effect is not usually very noticeable in ordinary daylight, when the whole visual surroundings are perceived as rigid and stable while we ourselves move. But it may be apparent in driving at night, when the surroundings are not clearly perceived. And if we look at objects on either side of us, we may see them moving rapidly in the direction opposite to that in which we are

moving; but the farther away they are, the slower the movement, and the horizon is stationary. In fact, the retinal image of the landscape is continuously distorted or deformed as we move, but we are not consciously aware of this deformation; instead we perceive it in terms of our own movement across the *landscape*. This is something that film can also pick up in relation to perspective and visual thinking.

Krzysztof Kieslowski's luminous visual style in the Trois couleurs: Bleu (1993) deals with French countryside and Parisian city scenes, which are given an eerie, uncanny quality. Fields are draped in mist, streets look like labyrinths, and there is the same vertiginous sense of time distorted. Narrative progression is haphazard, occurring through coincidences and chances. The common thread that links many occasional incidents is music. In the film, there are many highly stylised moments of epiphany when the action freezes as Julie's (Juliette Binoche) memories come in, and the music blasts out on the soundtrack. Bleu follows in the tradition of the French Nouvelle Vague (New Wave), because it has echoes of a Godard-film Vivre sa vie (1963), in which Nana (Anna Karina) was similarly cast adrift in the big city landscape. 125

In *Bleu* Kieslowski aestheticises Julie's sense of isolation, and Kieslowski manages to convey Julie's grief most effectively through almost throwaway images: her gaze seizes on many little objects, and under her scrutiny these fragments take on immense pictorial significance. Kieslowski's *Trois couleurs* -trilogy (*Bleu*, *Blanc*, *Rouge*,

1993-94) is, of course, about colour - blue as the colour of remembering and melancholy, white as the colour of weddings and orgasms, red as the colour of jeeps and emergency rescue services. Kieslowski integrates his colour motifs into the social and psychological fabric of his storylines, making connections and finessing moods. This has something to do with some other visual motifs in the trilogy: the recurring play of light on Julie's face in Bleu, the four fades to black as time stands still in Bleu, the cuts from light to darkness in Blanc, the disquieting tracking shots in Rouge.

Bleu is a film of intense subjectivity, where the camera sometimes occupies the point-of-view of the protagonist. The sound mix of the early part of the film renders the dialogue almost inaudible, with only the sudden passages of music cutting through the perceptual fog, involuntary memories that bring back the echoes that Julie has tried so hard to forget. Time stands still, and becomes meaningless. That is why is almost impossible to know how many days, weeks, or months the action actually takes place, because there are no external events to mark their passing. The defining characteristic of Kieslowski's style may be a kind of double vision: the ability to balance an immense, rigid, carefully worked out formal structure with an improvisational openness to nuances of feeling. 126

[Landscape in Angelopoulos's Films]

Temporality in landscape experience is further complicated by the movement of the body itself, a phenomenon

we call kinesthesis. When moving across landscape space there is not only a dynamic flow of perceptions derived from external sources, but there is also the muscular and nervous movement of the body itself through space and time. This is something that is related to cinematic thinking. There is a complicated interrelationship between, for example, the perception of the movement of surroundings and the movement of the body, which is displayed in what is known as 'parallactic movement'.

Raymond Durgnat thinks that the Greek film director Theo Angelopoulos is a virtuoso of long takes, especially the "figures in a landscape" kind. In this kind of thinking 'landscape' includes streets, interiors, and any sizeable area. According to Durgnat's thinking, Angelopoulos's camera tracks between follow-shot phases and "free-range" rovings, between extreme (scenery with distant figures) and the old mid-shot distance (knees-to-head), at which modern wide-angle lenses allow plenty of landscape above, around, and between people. It is an example of European *pictorialism* and montage-thinking where there is plenty of time for people to come into the frame and walk slowly over it, while the camera tracks down after them. Also, many scenes start with a long shot, and avoid close-ups.

As Durgnat points out:

"The camera movements subserve the general scene, subordinating to it any calligraphic or camera-conscious side-effect; they pick out details less than they change or vary its *aspects* and general configuration. 'Aspect' here, carries its original, visual, sense: the particular facet seen. It's as crucial to pictorial meaning as *what* is seen. It dictates the camera-angle, not vice versa (albeit film theory regularly misattributes to

camera angle meanings stemming from aspect). As compared with cuts, the moving camera's gradual angle changes allow a more solid, sustained sense of scene."¹³⁰

Angelopoulos strengthens his universes by a feeling for a man-in-environment -theme. This is possible by an unhurried choreography of camera and characters, and by heavy emphases on people's silent or cryptic thinking. It seems that Angelopoulos rejects montage (or uses montage-within-shot) as too manipulative a technique for capturing the reality or essence of a given moment in a given place. Andrew Horton thinks that Angelopoulos forces the spectator, through the slow pace and continuous takes of his films, to become more *aware* of the environment, whether it be man-made or natural.¹³¹ In the hands of Angelopoulos the long takes transform into 'sequence-shots'.

"Hard-edged landscapes, like architecture, and people who, being distant, make pictorially small movements, encourage cuts on strongly static forms; these strengthen the graphic collision dear to montage editing (hence Hollywood usually preferred cuts on movement, as more self-effacing.). "Walter Benjamin has recognized that the meaning derived from landscape and architectural space is received 'by a collectivity in a state of distraction', slowly appreciating its symbolic environment through 'habitual appropriation', or through everyday use and activity. "Angelopoulos creates new relationships between the camera and the scene. It is a question of montage within the camera and montage within the shot which seems to become a more 'normal' way of expressing than the usual montage thinking.

The Russian montage theory was based on the idea of shot as a unit that does not change much. But when we have long tracking shots and pans, the shot ceases to be just one unit, one look, and becomes several (25, 50, etc.) units, which do not distract the attention towards the shot as a whole. In a way, it is distracted, because when the scene proceeds and moves forward, the spectator looses the touch of places and forgets the veridical relations of things. When one usually perceives things, one knows exactly where one's body is, and one relates all that what one sees into a feeling of one's body. That is important in a human vision, because when one concentrates on something, one does not separate it from its surroundings. When the camera rolls over a scene, it shows only parts of the whole, so after 60 seconds camera movement, the spectator has forgotten the places of things, and that is important related to editing. The structures of film are largely function of our knowledge of the world, and our expectations as to what we will, or need to be, shown. Stefan Sharff has spoken of slow disclosure, which means the gradual introduction of pictorial information within a single shot or several. 134 As a method it can be applied to one scene or to a whole narrative; basically it is a way of avoiding a simplistic and overexpository flow of information.

In Angelopoulos' Voyage to Cythera (1983) this gradual pictorial information is introduced with different kinds of sequence-shots:

"The landscape shots using freely in and out of POV positions. Alexander, quitting the old actors' audition, walks leftwards, in a follow-crabbing (aka sidewise travelling). He's distanced from

us by a busy foreground (behind which he briefly disappears, the camera keeping pace with his *presumed* walk). As he remerges, pauses, and turns his back to camera, the camera moves round and forward into a space so close to his that his colleagues stepping forward to address *him* seem to address camera; which makes it, and conspicuously, his POV. But that's jarred when he re-enters shot, and at some distance, and from the *right* (against the earlier momentum left)."135

In Angelopoulos' film reality and imagination mix and reflect each other. This all has a specific quality which creates stimulating differences. Alexander's journey in the film has three circles: First, Alexander leaves his daily environment, second, he creates a dream hero, and third, the relationship between the artist and the old man. The voyage has self-critical aspects in it, it functions as a vision, a meditation and an analysis of the man's creativeness related to the world outside him. The complexity of the narrative structure and the visual approach has some specified meanings in Voyage to Cythera due to overlapping of different layers of time and the free manipulation of time. David Bordwell thinks that Angelopoulos perpetuates the 1970s tendency toward lenghty shots framed at a distance and subordinating the actor to landscape or decor. 136

Angelopoulos extends many dedramatising tactics. His special interest is in the landscape and stretches of dead time. Angelopoulos's camera examines the scenes with its own curiosity, enumerating the contents of the shot before it with only small movements, and after that, panning in the appropriate direction. Angelopoulos is a modernist in creating a recognisable, self-conscious style which he carries throughout his works. In his films the

long takes and camera movements create a *dialectic* among different elements in the shot.¹³⁸

[Connecting Issues]

M. D. Vernon describes:

"Thus a rough generalization may be made that the total amount which can be attended to at any one moment is constant. If attention is concentrated on a small part of the field, little will be perceived in other parts; if attention is diffused over a larger area, no one part will be very clearly and accurately perceived." 139

One has both perceptions and conceptions of the world. Perception is somehow separate, and in many ways different from conceptual understanding. Perception works quickly, whereas conception formation takes longer time, since knowledge and ideas are in a sense timeless. Perception employs a rapid but not deep intelligence with a small knowledge base. Perhaps the most popular and best known classification is into the synthetic and analytic methods of perceiving. 140 As the names indicate, the observer who adopts the synthetic method tends to see the perceptual field as an integrated whole, whereas the observer who adopts the analytic method breaks up the field into its constituent parts or details, studying each one separately and perhaps overlooking the effect of the whole.¹⁴¹ In the synthetic method visual illusions appear more compulsively; apparent movement and causality are readily seen; size, shape, and colour constancy are high. The analytic method is more appropriate when small details must be attended to and certain qualities isolated from the whole, for instance, in judging the brightness or

colour of a surface independently of its other qualities, or those of the remainder of the field. Furthermore, it must be utilised in making judgements of perspective size.¹⁴²

Hochberg thinks that the explanation of why inconsistencies of pictured space can go unnoticed may in part be that the inconsistent regions of the picture are not normally compared to each other directly, and any object is usually examined by a succession of multiple glimpses, and the various regions that are looked at each fall in turn on the same place in the eye. That is why the separate parts of the figure all have to be brought at different times to the central part of the retina, the *fovea*, if they are to be seen in full clarity of detail.

According to the Gestaltpsychologist way of perception the meaning of the stimulus is to function as an interface between two kinds of texts, the one being the object itself and the second being the spectator's mind, which alone contains the meaning which it associates with the text's otherwise empty signifiers. So the picture is merely forms signifying nothing, but awaiting a mind to contribute the connection between signifiers and signifieds. 144 That is why the meaning in cinema's visual perception is constructed in the mind, because the emphasis on the active and constructive operations of the mind will in Gestaltpsychological thinking go far beyond the notion of "the production of meaning" by a "text". 145 In spite of retinal variations and environmental influences, the mind's image of the object is constant, because conception transforms perceptual forms. It is a question of constancy of vision, as J. M. Wilding puts it:

"The maintenance of a stable world despite changes in the view due to our movements is called position constancy." ¹⁴⁶

If visual perception only seems to have a truly astronomical "spelling" and "vocabulary", it is because, it has neither. It remembers not so much specific forms, as processes of construction. Durgnat thinks that "in real visual perception, we have taught ourselves to see that a table is rectangular even though, as we walk around it, its images on our retina can only be a constantly changing series of quadrilaterals. That is why it is obvious why "elasticity" is the essence of visual perception and structuration, even at the expense of confusion. Visual elasticity resembles analogy in that it may be very precise or very rough. So much so that it can only work in an intimate alliance with other principles. 148

[Varieties of Visual Attention]

And if a single image is rich in its complications, then the multiplicities according to it are based on the points for our attention through perception. As our gaze, and independently of it our thoughts, move over an image, they discover a variety of centration points. The image and its associations may tempt, tease and lure or provoke us although the artist might have anticipated the manoeuvres of our attention, but pictorial reading of an image or pictorial appreciation of an image gives us further encouragement to look for the graphics. This gives us a new way of looking through the configuration of pictorial

elements in an image, because the eye rarely fixes on a certain point for very long. The essence of the process is more like some kind of patrolling over an image.¹⁵⁰

Noël Burch sees that

"our contention that all the elements in any given film image are perceived as equal in importance runs counter to a fondly cherished notion of nineteenth-century art critics later embraced by a number of twentieth-century photographers: the belief that the eye explores a framed image according to a fixed itinerary, focusing first on a supposed 'centre of compositional focus' (generally determined by the time-honoured 'golden rectangle'), then travelling through the composition along a path supposedly determined by the disposition of its dominant lines." ¹⁵¹

Burch thinks that this kind of conception is outdated because the modern eye sees things differently.¹⁵² There are elements in a film image that call attention to themselves more strongly than others, but at the same time the spectator is also aware of the compositional whole because looking is a mental process. That is why the artist cannot direct our attention as closely as certain traditional analyses, based on compositional level, are firmly to believe in, but as Durgnat has pointed out, "powerful structures can exist without a one-way, linear order".¹⁵³

One often sees things as a whole and after that one dips into details which become centration points, but at the same time one looks at the relations which also become centration points. For example, when one looks at a map, a distance between two places, one is not looking at a point, but instead a distance between two points, so at the same time when we are talking about

centration points, we are also talking about zones, lines, distances and fuzzy circles. When one sees a triangle, one can see it as a shape, as an outline, and one can look at the three lines or one can look at the three angles, so it is a question of the extreme flexibility of the centration points which constantly overlap with each other.

In looking at a triangle, one can center on the top apex, and then another apex and another apex; next one can center on the space between the lines, and one can think of the three lines as one shape; then one can think of each line on its own, each angle on its own. One has actually found already over ten centration points without moving one's eyes because they are really tension points, some of which are as big as the whole triangle, some of which are as small as a given angle. While our visual attention moves across an image, its major configurations and relationships will keep recurring and reorganising. Our visual attention moves across an image as if we were redirecting a more or less real scene, at least to the extent that an image can be a real object and a depiction of something.

When talking about the varieties of visual coherence, Leo Braudy has suggested¹⁵⁴ that a representational art always re-creates the world around us as a new form of visual organization. And movies, because they exist in time, expand the shaping possibilities available to painting and sculpture. And since their methods are in part so subliminal, movies can constitute a generally available method of creating visual coherence, the effect of which we can see around us every day in

paintings, photographs, comic strips, sculpture, life-style, and even the "scenes" our eyes pick up when we walk down the street, across a field, or into a room.¹⁵⁵

Durgnat has stated that 156

"The main structural similarity between the eye and the camera is that both have lenses, and that isn't very significant, since everything in their perspective systems is entirely different. The camera captures on film a super- ficial and momentary impression of a scene, with an all over evenness which is as unanalytical as it is impartial, and with a fixity which ren- and re-vision. In comparison, human vision, or rather human attention, entails the operations of the *mind's eye*; that is to say, it works like a rough-and-readybut versatile and self-correcting computer, which can summate and integrate a variety of glances, and for which 'I see' means 'I understand' since it functions by feedback between *seeing* and *knowing*, between seeing-as and *interrogation*."

The visual world around us is rarely at rest: and if it is then we are not, because our eyes move so that the image on the retina is constantly unstable. And when objects do pass us, they change their form constantly; even the most static objects are in a visual movement when we approach them or move our heads. When we are moving through visual spaces, the exact definitions are usually less important than some kind of rough perception and spatial location.

"In visual and pictorial perception there's a powerful element of analogue approximation: 'It looks roughly like one, so it probably is one.' For analogy is *elastic* (just as similarity is a matter of degree) and *selective* (it operates even when limited to certain aspects."¹⁵⁷

In a way cinema has a skill of redoubling the effect of light's motion because film images are actually moving, and a single image in a film never stands still, just as light never does, and just as the eye never does. The moving eye is the other half of moving light. And as Anne Hollander has suggested:¹⁵⁸

"... the living eye is in motion, always ranging for food. Again modes of art using human experience for their subject that both engage the scanning eye and suggest its analogy to the inner life can rely on a raw emotional pull. In movies the camera itself is the seeking gaze, demanding enlightenment, and its choices can demonstrate its superior insight: good cinematography and editing give the effect of satisfying the eye's immediate prior longings at every instant. Ideally, the camera unerringly finds what the bodily eye and the mind's eye are both unconsciously lusting for or perhaps dreading."

Our visual system has been built up so that local space is heavily controlled by subjective perspective. This was true even before pictorial perspective's development, which includes a reference to the fact that perspective's pictorial development is a rational, objective thing, and does not involve subjectivism. There is also a question of a point-of-view, which marked visual perception even longer before it appeared in images. In visual perception perspective is necessary, because we cannot deal with the object's forms, places, and where they are heading for, without the help of perspective.¹⁵⁹

[Formal and Structural Visions]

Béla Tarr's *Damnation* (Kárhozat, Hungary, 1987) is a visual poem concerning the life of a man totally alienated from himself and his surroundings. It is an example of East-European surrealism, *pictorialism* and also figures in a landscape -theme. The milieu of the film is an aban-

doned rainy landscape where concrete textures reflect the essentialism of the film. The film is full of visual fragments, loosely running dogs and water, all reminiscents of a Tarkovsky -film. *Damnation* builds itself up to a kind of synthesis of imagery, poem and music. As David Thomas Lynch has pointed out: "Tarr's style and choice of weighty moral themes put him in the modernist camp of filmmakers, a group that is now mostly dead, retired, or self-destructing into aphasia (see Angelopoulos's *Le Regarde D'Ulysse*, the modern intellectual's version of *The Great Dictator*) and not hip anyway." ¹⁶⁰

Béla Tarr has been called the *Hungarian Tarkovsky* because of his use of space and time. In *Damnation* time is basically controlling everything, although it seems that time doesn't matter to the main characters at all. Tarr's time is in a way lost time. The spaces have been modified so that all the deep-focuses are there. The action takes place on different levels of the composition. This makes it possible for Tarr to use his own stylised camera calligraphy. Also sounds create spaces (on- and off-screen) in the film. Stylistic, social and semantic changes are all present in Tarr's personal oeuvre.

David Thomas Lynch thinks that: "The subject matter of Tarr's films is misery in interpersonal relationship, depicted with an unflinching intimacy; this closeness is offset by formal and structural elements that provide a distance from narratives that would otherwise seem overwhelmed by despair, and that point towards political, psychological and metaphysical interpretations of these problems that devastate the characters." ¹⁶¹

Béla Tarr's characters have no future and probably not even past, although one can see many references related to Hungarian history in his films. Stylistically speaking one can see Tarr's style, for example, in Satantango (1994), as a continuation of the Miklós Jancsó-style in some earlier Jancsó-films (especially Agnus Dei & Red Psalm, 1969-71). These films flamboyantly flaunted the mastery of camera movement. Jancsó's near-schematic technique relied heavily on camera set-ups and long, wandering, and elaborate compositional scenes that compellingly use the integration of figures with the landscape. From the Soviet montage tradition came the idea of a group protagonist, which Jancsó turned into dedramatising ends.

Jancsó's dramaturgy emphasized large-scale forces and momentarily fluctuations. The scenes were played out in very long takes with constantly moving figures and ceaselessly panning and tracking cameras. In *Még kér a nép* (Red Psalm) the groups have become pure emblems of social forces, playing out symbolic rituals in abstract space.

Tarr explores and extends stylistic options current in his milieu, bending them towards specific goals which include dedramatisation and a kind of muted emotional expressivity. At the same time Tarr creates a kind of subtle direction of the audience's attention, a concomitant awareness of the process of film viewing. Tarr concentrates to his devices so imaginatively that they have come to be identified with his work. They give each film a themeand-variations structure; Tarr explores throughout his imagery their visual and dramatic possibilities.

In Satantango a mysterious small-time crook returns to a tiny community in the Hungarian plain, having been thought dead. The people welcome him back as a saviour; exploiting the recent suicide of a young girl, the takes all their money and takes them away to what he assures them is a brighter future. The film is based on a novel by László Krasznahorkai and it lasts over seven hours. Tarr elaborates his scenes through a carefully choreographed mise-en-scéne.

Jonathan Rosenbaum has compared *Damnation* and an earlier Tarr-film *Almanac of Fall* (1984) as follows:

"The two films are quite different in other respects. *Damnation* is in black and white and steeped in gloomy atmospherics (in exterior shots rain, fog, mud, and stray dogs, and in interiors lots of murk and decay). *Almanac of Fall* is in colour and has the dramatic economy of a tightly scripted play. But the two films have one striking thing in common: the story and the miseen-scéne are constructed in counterpoint to one another, like the separate melodic lines in a fugue." ¹⁶²

Tarr's extremely slow camera movements often move away from or past the characters creating up a mood and sensation related to formal suspense. This makes it possible for Tarr the use of different perspectives during the same shot. For example, in *Satantango* he changes perspectives from people to the landscape, and so on. The spectator of a Béla Tarr -film is, in a way, forced to see these changes, share the immobility of happenings, waiting and the expectations of the characters, while the shot proceeds. David Thomas Lynch thinks that this the way how, for example, *Satantango* combines distance with empathy, aided by a complicated chronological rearrangement of the story and careful attention to the particularities of the characters. 163

Tarr's camera movements are related to the general scene, subordinating to it any calligraphic side-effect. As compared with cuts, the slowly moving camera's gradual angle changes allow a more solid, sustained sense of scene. Long takes stay with a stretch of world. Tarr's reflective moments flatten those sharp peaked rhythms of action, decision, or suspense, that might disrupt or supersede our sense of time. Working together these features of form elongate our sense of duration. The takes seem even longer than they are, approaching a vision of sequence shots. In one respect Tarr's cutting nudges closer to montage editing than Hollywood norms. In Tarr's oeuvre the hardedged landscapes are important, and people being distant make small pictorial movements, encourage cuts on strong, almost static universe.

Tarr's physical landscape is marked by the long shots, where the different elements function as parts of the natural setting, but they too are part of a subtextual language that calls up both private and universal associations from one film to the next.

Tarr orchestrates the various elements in his own way: the action consists of what the characters and the camera do in relation to one another, so, there is the possibility of moveable and shifting relationships between the elements. Tarr's approach deals with the character's hidden agendas and duplicitous motives, adding to the overall paranoid and conspiratorial atmosphere. Tarr's strategy creates various kinds of movements within stasis, and freedom within confinement.¹⁶⁴

Tarr's commitment to long takes, distant views and temps morts places an enormous weight upon the unfolding shot. Camera movement is the most obvious accessory here. In Tarr's films the camera movements seem locally motivated. This tactic allows Tarr to keep his shots alive, and shift our visual interest. This is the way how Tarr's camera movements participate in a larger cinematic dynamic, filling the spaces in a slow tempo; they offer a chance to arouse and foil expectations. The strategy with the long take is to take it to a moment of heightened expressivity. Its source is in a modernist aesthetic, the absence of drama can command our attention and emotional investment along different lines. The strategy of building a long take to a moment of heightened expressivity, in the absence of drama which can command our attention and emotional investment along mainstream lines, has its source mainly in modernist aesthetics. Tarr blends European cinematic traditions with a new kind of awareness.

Béla Tarr's films are fine examples of artistic originality, because Tarr can create direct perceptual and imaginative engagement with the films themselves, and can give rise to a distinctive aesthetic mode surrounding the films. Tarr is an European filmmaker who can mould sensuous or imaginatively intended material into original symbolic form. Tarr brings the rational, sensible and historical aspects of experience into an internal relation. All the different elements of his films are, in a way, inseparable, coherent, and mentally and physically embodied.

Béla Tarr's cinematic syntax makes possible increasingly complex combination of shots, which can the generate an even greater variety of messages and meanings. Such combinations touch on the mystique of cinema: a peculiar and original cinematic reality. Tarr's film phrases, constructed through fragmentation, also tamper with reality by showing the total geography of a setting and spatial relationships between the shots. Tarr shows that the intensity of perceiver involvement depends on the energies, which radiate from the screen according to the filmmaker's arrangement of dramatic sequences.

The resulting cinematic experience is the sum of several *processes* operating together. Tarr shows that visual forms converging with the factors of meaning create many-sided tensions. Tarr's films function on many perceptual levels at once through their own specific structures, properly arranged according to the rules of performance.

[Pictures, Symbols and Signs]

Raymond Durgnat has suggested that the term "syntax" coming from linguistics which deals only with distinct and prespecified forms normally implies the bringing together of distinct units, but pictorial form envolves extension and continuity and from this angle pictures are nothing but syntax, the only pure syntax there is. ¹⁶⁵ For example, a line is not really one distinct unit after another, it is a unit by being an extension of the same thing: a line is not

a syntax of points. The form of each and every object is adjusted by its viewpoint, and by their relationship with one another, so that depending on the point-of-view each perspective of a shape is different, and this is one of the basic differences between visual perception and language because, for example, the shape of a verb does not change, but the shape of a table changes depending on the viewpoint: "For example, a basic rule, not only of pictorial but also of visual perception is: If two objects seem to overlap, then the completed one is in front of the other." ¹⁶⁶

Rudolf Arnheim has demonstrated that images can serve as pictures or as symbols; they can also be used as mere signs. 167 The three terms (picture, symbol, sign) do not stand for a kind of images, they describe three functions of the images. A certain image may be used for each of these functions, and will often serve more than one at a time. An image serves merely as a sign to the extent which it stands for a particular content without reflecting its characteristics visually. To the extent which images are signs they can serve only as indirect media, for they operate as mere references to the things for which they stand, not analogically, and therefore not for thought in their own right. However, numerals and verbal languages are true signs. Images are pictures to the extent to which they portray things located at a lower level of abstractness than they are themselves. They do their work by grasping and rendering some relevant qualities (shape, colour, movement) of the objects or activities they depict. An image is concrete in itself, but it is abstract

from what it is a picture of. In the visual arts people often mean abstract to mean non-representational of anything that one can recognize, but even representation is abstract in the sense that it only picks up some aspects of the thing it refers to it. A photograph is semiabstract in the sense that it leaves the object; it reproduces some aspects of the object, but not others, for example, shading but not depth, and in a photograph one often looses the contour of things.

Abstractness is a means by which the picture interprets what it portrays. A picture is a statement about visual qualities, and such a statement can be complete at any level of abstractness. Only when the picture is incomplete (ambiguous or inaccurate) with regard to the abstract qualities, the observer is called upon to make his own decisions about the features of what he sees. An image acts as a *symbol* to the extent to which it portrays things which are at higher level of abstractness than is the symbol itself. A symbol gives a particular shape to types of things or constellations of forces. As symbols, fairly realistic images have the advantage of giving flesh and blood to the structural skeletons of ideas. ¹⁶⁸

[Symbolic Possibilities]

As R. L. Gregory puts it: "The most striking - and a unique - feature of Mind is the acceptance and use of things as symbols standing for other things." Trevor Whittock thinks that "for the symbol to be successful the vehicle must be rich in figurative connotations." ¹⁷⁰

Symbols allow events to represent other events, possibilities and abstractions which do not exist as objects of sense exist, though some may be hidden in deep structures of reality. We categorise the world into separate objects in perception, and we describe the world as being made up of separate objects by the words in language. It is an interesting question how far perceptual and verbal classifications into objects are the same.

"They are certainly similar, but there seem to be hardly enough names for the objects into which the world is divided perceptually. During perceptual learning - such as when learning to see biological cells with a microscope - new objects appear from initially random or meaningless patterns. When given names, such as 'nucleus' and 'mitochondrion', the student sees these patterns as objects. What is seen and accepted as objects also depends upon whether they are regarded as functional units. A hand, or an arm, or the pages of a book are functional units, though they are complex structures. In microscopy the criteria for what is a functional unit may be highly theory-laden, and so may change as theoretical descriptions change." 171

Arnheim has stated:172

"The human mind can be forced to produce replicas of things, but it is not naturally geared to it. Since perception is concerned with the grasping of significant form, the mind finds it hard to produce images devoid of that formal virtue."

Memory retains or exaggerates significant things, and easily forgets the rest. E. H. Gombrich thinks:

"... we generally do take in the mask before we notice the face. The mask here stands for the crude distinctions, the deviations from the norm which mark a person off from others. Any such deviation which attracts our attention may serve us as a tab of recognition and promises to save the effort of further scrutiny. For it is not really the perception of likeness for which we are originally programmed, but the noticing on unlikeness, the departure from the norm which stands out and sticks in the mind." ¹⁷³

For example, caricatures, in the sense of pictures that capture the "essence" of some represented object, are recognisable for people quicker than photographs.¹⁷⁴ A caricature is surprisingly faithful to how the mind remembers things, and Hochberg thinks that various objects with which we are familiar have *canonical forms* (i.e., shapes that are close to the ways in which those objects are encoded in our mind's eye).¹⁷⁵ Also, in addition to the *visual* features of the represented object, there are *nonvisual* features that might be encoded; thus the caricature might in fact not only be as informative as is the accurate drawing: it might even be more directly informative for the task that the subject is to perform.¹⁷⁶

Hochberg writes:

"Nevertheless, the way in which the physiognomy and expression of Mickey Mouse is encoded and stored *must be identical in some fashion* to the way in which those of a mouse and a human - are stored. inasmuch as it is very likely that these similarities are not merely the result having been taught to apply the same verbal names to both sets of patterns (i.e., both to the features of caricatures and to the features of the objects that they represent), what we learn about caricature will help us understand how faces themselves are perceived."¹⁷⁷

[Modes of Access]

Maurice Merleau-Ponty thinks that perception is the 'original text' of conscious experience, and thus of phenomenology itself.¹⁷⁸ Merleau-Ponty thinks that man's body is not an object but a condition for objectivity, a point of contact between consciousness and the world. Thus, meanings are contributed by consciousness, and

perception is more than a mosaic of discrete sensations and more than their sum. Perception is a primordial structure of encounter and engagement of the lived-body with and in the world. It is the mode of access, the opening upon the world, that allows consciousness its objects through that agency of the body. Thus, perception becomes the existential paradigm of intentionality, the 'original text' or expression of the structure of consciousness which carries its meaning within itself, as it shows itself.¹⁷⁹ Before perception can be predicated (that is, intended as an object of consciousness), it must itself provide the horizon and grounds that make predication possible.¹⁸⁰

Merleau-Ponty defines: "Perception is just that act which creates at a stroke along with the cluster of data, the meaning which they have, but moreover sees to it that they have meaning." The 'primacy of perception' means that the experience of perception is our presence at the moment when things, thruths, and values are constituted for us. 182

Perception, like the structure of consciousness, is never empty but always the perception of something. Given its existential nature, its link with the body that is finite and always has a particularly directed and biased access to the world, perception of something is invariably the marking of a choice and the setting of boundaries that constitute a field or context and its primary significance. Perception is structured and structuring expression of intentionality in existence. Perception is a lived experience and it also brings latent and operative

thought into existence. Thus, we can speak of perception as thought itself, because perception not only engages consciousness with the world in a Gestalt structure but also expresses through that Gestalt the structure and structuring activity of consciousness in existence. Existential phenomenology is a philosophy of liberation that recognizes the potential for change exercised by individual and collective action. It emphasizes the body's relationship with the world, its situated freedom and its continual activity of self-displacement or becoming and offers contexts for reflection concerning, for example, the works of art.

Symbolic interpretations that make one concrete object stand for another equally concrete one are almost always arbitrary. We cannot really tell whether a certain association was or is in the conscious or unconscious mind of the artist or beholder unless we obtain direct information, which needs analysis. The work of art itself does not offer the information, except in the case of symbols standardised by convention, or in those few individual instances in which the overt content of the work appears strange and unjustified, unless it is considered as a representation of different objects of similar appearance. The conscious mind can divide its attention, and there can be distinct levels or agencies of attention in the play at the same moment. There is a tendency for our consciousness to bind the simultaneously existing apprehensions together. 183

In art educational context, theories of art as a foundation for interpretation provide insights and they

entail more work on the part of teacher and student alike. Teachers will have to present works of art in a more studied context, knowing something about the history of art, the artworld, and art theories which will better enable them to explain the artist's intentions, theories of art the work rejects or internalises, technique and style. Students will also have to develop a grounding in art history, theory and knowledge about the different contexts (cultural, historical) of the work. The more and more detailed background research will be a guiding force toward a more plausible and complete understanding of the different aspects of contemporary art.

For example, when Sergei Eisenstein wrote about montage within the shot he was pointing out that the screen constitutes an organized pictorial composition, in principle like a Renaissance painting. 184 Durgnat has remarked that "we would demur with very many details in Eisenstein's analysis, but this does not affect the correctness of the principle."185 When Eisenstein spoke of the conception of the organic, he was outlining that the organic spiral finds its internal law in the golden section, which marks a caesurapoint and divides the set into two great parts which may be opposed, but which are unequal. (In Battleship Potemkin this is the moment of sorrow where a transition is made from the ship to the town, and where the moment is reversed). But it is also each twist of the spiral, or segment, which divides up in its turn into two unequal opposing parts. And there are many kinds of opposition: quantitative (one-many, one man - many men, a single shot - a salvo, one ship - a

fleet); qualitative (sea-land); intensive (dark-light); dynamic (movement upwards and downwards, from left to right and vice versa). So in Eisenstein's thinking the montage of opposition takes the place of parallel montage. 186

André Bazin emphasized deep focus in seeing the image as a graphic structure, although Bazin thought that Orson Welles and William Wyler did not direct the spectator's gaze, which was an unfortunate mistranslation according to Durgnat, 187 who continues that "it was a first step on the same slippery slope down which the primitive Bolsheviks had rushed in the 1920s, when they, too, restricted manipulation to montage, removed it from mise-en-scéne, and reduced the shot to an unarticulated, inarticulate unit - merely 'raw material' with which filmediting could have its will". 188 Lev Kuleshov and in certain moments also Bazin were overlooking the complex structure of an image, and later on "critics went to contrast the metteur-en-scéne with the auteur and stressed camera movements but overlooked the richness of the pro-filmic operations, of the mise-en-scéne, which the shot exists to show, often from the angle which showing requires".189

A shot in a film is a series of images, a series of frames, but it is also a serial image, a new kind of pictorial entity, and even if there are no camera movements in a shot, on the level of the image there are many kinds of movements, which allow the shot to be covered. A movement (objectional or camera movement) does not undermine the image, but develops it. What the graphic qualities

lose in the sense of economy, they will regain through tempo, rhytmics, choreography and orchestration.¹⁹⁰

[Perceptual Specifications]

Consequently, structures are not simply forms, they also generate content (the form in a text entails content in the spectator's mind), and it is a mixture of images that creates the synthesis; thus the cinematic experience has this feeling of several processes operating together and visual forms converge with the factors of meaning to create tensions. Cinema functions on many perceptual levels simultaneously through its own specific structures.

One can say that there are different meanings in which the concepts of form and content are used with reference to works of art. First of all, the content of a work of art may mean everything represented and expressed in a work, while the form may describe the means and ways of representing and expressing that something. Form may be understood as a certain arrangement of parts, a structure of elements, or a global composition of elements of a work or some other object. In such a case, its correlative is content, understood as a selection of all the elements of the work, its matter of a work of art, or its substance. When the form is understood this way, the individual sensual qualities, such as colours, shapes, lines, sounds, sonorities, are not considered to be formal elements (only their interrelations are considered as such) - they are the substance of the work of art. Sensual qualities may be treated as the

formal aspects of a work of art, if by form one means those things, that are directly and sensually perceived in the work. Sometimes theoreticians the form to signify not some significant aspect or side of a work of art, but the artwork itself, in which the formal elements and elements of contents are united into a certain organic totality, in to certain self-contained structure abstracted from the world. In this sense, one can not talk about the form of a work of art, but about the work of art as an artistic form. Form is thus considered to be either the so-called idea of the work, or the material substance of the work.¹⁹¹

One view according to the principles of visual organization deals with Eisenstein's thinking, when he speaks of conflicts, graphic conflicts, conflicts of planes, conflicts of volumes and spatial conflicts. According to Durgnat, 192 he deals with nothing esoteric, but with the same principles of visual organization which were regularly used by Hollywood editors and anticipated in the miseen-scéne of Hollywood directors. Partly that kind of onedimensional ideas are due to thinking that for example Eisenstein's concept of intellectual montage is reduced to some iconographic, non-graphic and plastic juxtaposition. Quite like Eisenstein, many Hollywood directors also utilised graphic and plastic qualities between images, and the relations were based on the structures of a single image by forming a view where there were two or more configurations inside one image.

So Durgnat thinks: 193

"Hence dynamic editing doesn't just begin and end a shot. By contrasting shots it *intensifies* the pictorial dynamism of each... from Griffith onwards, editing has played the closest attention

to graphic structures, operating first within images and also between images - and finally across intervening images."

Therefore it is clear that a pictorial analysis of a film cannot stop on the level of a single shot or an image, because every image and every shot works pictorially together with many other shots and images. Cinema is also an art of movement, and movement in a film is concrete, unreal movement in depicted space. It is also graphic movement in real space, and there are tensions between both of them. Durgnat thinks that one would be reduced to a very specialised prose if one tries to describe a film shot with a visual precision with which it presents itself as it is, and with no importations.¹⁹⁴

He also maintains that the visual and verbal functional equivalence depends on very different semantic contents, because, before a deep focus, many shots correspond, not to a sentence, but to a paragraph of description: "Landscapes rich in detail, the panoramic battle scenes in *The Birth of a Nation*, fixed-focus shots with two-plane action, physiognomies in Bresson and Dreyer".¹⁹⁵

This is just one way to show how many problems the linguistic analogies in film produce because film shots have no equivalents in other media, and the structures of film are functions of our knowledge of the world, of how things operate in the world, so, we can learn what the following consequences are, and what our expectations are. As Durgnat points out further on: "While films compromise between film form and knowledge of the world, these compromises permit an infinite variety of forms,

corresponding not to syntactic, prescriptive rule, but to alternative utterances."¹⁹⁶

Gordon Rattray Taylor defines:

"When we look at a picture in which depth is important, say a street receding from us, we naturally apply scaling and interpret small human figures as being the same size but further off than larger figures, ignoring their 'real' size as measured on the surface of the paper. This leads to a well-known illusion, in which solid bars of equal phenomenal length are placed across a pair of receding railway lines. The upper bar naturally appears larger than the lower, and if it was really part of the picture it would indeed have been larger. In a sense there is no 'illusion'. The only question which arises is whether we are expected to treat the picture as an object (and not apply scaling) or as an impression of a scene (and apply scaling). It is a discrimination we often have to make. When a picture restorer examines the cracks in the paint, or a critic the brushwork, he is treating the picture as an object. The railway lines 'illusion' succeeds inasmuch as it leaves the brain doubt which stance to adopt."197

Enabled by its mechanical and technological features the cinema can make uniquely visible not only the objective world but the very structure and process of subjective, embodied vision.

[Descriptional and Other Values]

Metz has it right in saying that it is really *movement* that produces the strong impression of reality into cinema. All this is related to narrative cinema mostly, although there are other kinds of cinema which do not always tell a story; for example, the talking heads that one sees on a television screen are not necessarily telling a story, but instead talking about their problems. So all the forms of discourse are not necessary narrative:

commercials are not usually narrative, and a lot of newsreel is not narrative because, if in a newsreel one sees somebody laying a foundation stone, it is not actually a narrative, and one can agree with Durgnat that a film shot is a *descriptive* unit more than a narrative one. ¹⁹⁹ E.g. Thus, if someone gives you his or her opinion, or describes his or her state of mind, none of that is narrative. People always think of pictures as being pictures of objects, but supposing you have a landscape, it is not really an object. Then, what is a picture? It is a description of a scene. So one can talk about objects in pictures and one can talk about scenes in pictures, and most scenes have objects in them, particularly in photography because, when you do a drawing, you can do a drawing of an object in itself with no background, no scenery, but when you take a photograph it is usually in a scene.

For example, Peter Greenaway's visual (or audiovisual) world is, despite the large number of details, also rarely peaceful. On the other hand, the meanings of the screen will come and change their form quite suddenly. Partly it is because of the enrapturing camerawork by Sacha Vierny, partly because of the Greenaway-compositions, the changing effects inside the shots. According to this kind of planning, may the enrolled image of the same camera position have a new meaning in the middle of the same shot, when the attention-point will be focused differently. So, the object (a person or something else) that comes into the frame will be combined with the possible camera movement (for example, tracking backwards) and some new thing

emerging rapidly, which creates a kind of dramatically influenced mood, stops the whole scene for a while and then continues to develop the shot into new areas of meaning.

Greenaway seems to trust into partial perception and space-controlled duration of the shot, according to which the visions and spatial areas in our brains are dominated by different sections than these kind of systems which require more initial attention. As Thomas Elsaesser puts it:

"A static, closed universe, jerked into mechanical life by rules, games and witticisms: this side of the coin is almost too easy to fault, as if the director were in advance disarming the critics by playing even more openly his customary hand. But Greenaway always keeps a powerful motive up his sleeve to propel his figures into narrative: that of the contract and the conspiracy, antithetical and warring principles in one's dealings with the world."²⁰⁰

In Greenaway's *The Draughtsman's Contract* (Great Britain, 1982) the prime interests are the landscape, the ideas involved in the sheer interplay of plot, the symmetry, and those concerns characteristic of the whole sub-text of gardening; also the games that can be played with the dialogue, its content and the forms it takes. The film is set in Wiltshire in 1694 and is about a landscape artist and Scottish Roman Catholic called Mr. Neville (played by Anthony Higgins) who makes a living drawing prospects of country houses for the landed gentry. Greenaway uses strong visual associations with one of his earlier films *Vertical Features Remake*. Both are concerned with the draughtsman seeking out particular characteristics of a landscape and pursuing them in an almost minimalist way. One constantly repeated shot is

of a landscape seen through Neville's drawing aid, a rectangular wooden frame. This frame-within-the-frame device calls attention to the framing inherent in all filming, painting and photography. It is also a distancing mechanism.

According to John A Walker:

"Composition is obviously crucial to the topographical views Neville specialises in and a comparable attention to composition is paid by the director and the cameraman. The geometrical system of perspective underpins both the acts of drawing and filming. Geometry is also present in the layout of the formal gardens of the house. Frequently, shots are so composed that the elements within them are symmetrical. This kind of ordering reflects the love of pattern typical of the period, but also the logical systems associated with so much modern art."²⁰¹

Greenaway's film works as an invitation to consider the problems of pictorial representation by watching someone drawing a real landscape, by comparing image and reality, and by reflecting on the representation of both via the medium of film.

The Draughtsman's Contract is structured to keep going back to the same landscapes at different times of the day, to see how the light has made shapes, forms, verticals, how they've changed and what new significance they have at different times of the day.

James Corner has pointed out that a landscape space is a highly situated phenomenon, literally bound into geographical places and topographies.²⁰² That is why the spatial interrelationships of the cultural and natural patterns that constitute a particular landscape mean that places are interwoven as a densely contextual and

cumulative weave. Places, like things, conjure up a wealth of images and ideas, and Corner relates this to Heidegger's thinking according to which, spacing also implies a conceptual ability to 'think across' space.²⁰³

As Heidegger has shown, thinking can 'persist through' distance and time to any thing or place.²⁰⁴ When one moves through landscape space, that person is going 'somewhere', he or she has a destination, and, in a phenomenological sense, part of the individual is already there through his or her thinking about the destination. The experience of landscape space is never simply and alone an aesthetic one but a highly situated network of relationships and associations.

James Corner defines: "Meaning, as embodied in the landscape, is also experienced temporally. There is a duration of experience, a serialistic and unfolding flow of befors and afters. Just as a landscape cannot spatially be reduced to a single point of view, it cannot be frozen as a single moment in time. The geography of a place becomes known to us through an accumulation of fragments, detours and incidents that sediment meaning, 'adding up' over time." 205

In *The Draughtman's Contract* the draughtman's perspective frame is explicitly compared to camera: the film camera frames and repeats the views, in a series of shots poised between subjectivity and objectivity.

Alan Woods thinks that objectivity is mocked throughout the film, as the script explores the paradoxes and naturalised conventions involved in representing 'what is really there'.²⁰⁶ The Drawings claim a photo-

graphic objectivity, but the camera is demonstrating the power of cinema as superior not just in realism but also in artifice. Any secure contrasts between realism and artifice break down. The spectator's perspective is a perspective of witnessed space which is contrasted in the film with a perspective of narrative or allegorical space. Both perspectives are present in cinema, ironised, mingled and thematised by Greenaway.²⁰⁷

[Assembling Visualities]

Other work of art, everyday life, film theory and criticism are all elements that provide us with countless things, specially learned mental patterns against which we check more individual devices. In watching films, for example, we continually form hypotheses concerning different elements on the screen. Our hypotheses may be confirmed or disconfirmed while in the case of the latter possibility, new ones will appear. The forming of these hypotheses will provide a background for the constant activity of the perceiver. The automatic construction of perceptual hypotheses is affected by schemata-driven processes that check hypotheses against incoming visual data. Hochberg thinks that since only the fovea of the eye sees detail, the saccades purposefully explore the environment, guided by schemata that propose the most fruitful places to look because we assemble our visual world from successive glances which we constantly check against our reigning *cognitive maps*. These maps tell us to ignore the eye's physiological tremor and to bring the most significant

areas into foveal vision. The schemata also generate hypotheses about what we will see next.²⁰⁸ In a cognitive way of thinking the work of art is in itself incomplete, it needs the active participation of the perceiver. David Bordwell thinks that in our culture, and in experiencing art, instead of focusing on the pragmatic results of perception, we turn our attention to the very process itself. What is nonconscious in everyday mental life becomes consciously attended to .. and like all psychological activities, aesthetic activity has long-range effects.²⁰⁹

The initial stages in the perceptual process that begin with stimuli are either effective or ineffective in making an impact on the sensory register. The primary activities that constitute sensory registration are attention and selection. The second major step is cognition. The activities of recognition, organization, classification, and discrimination make the bridge from perception, or sensory registration, to cognition, or making sense of incoming data. The next major step in the process is encoding the information into memory, either short term or long term. The last step involves the generation of some sort response. Cognition works as the idea of internal process and subject to internal influences, and at the same time convention is expressed through the social and cultural environment, and it operates as an external influence on the cognitive process.

Visual communication processes are different from language-based communication processes because of the impact observation has on thinking. Visual communication is grounded in perception, and extended through

cognition and language, and modified through social and cultural knowledge of the world.²¹⁰

In Film Language Christian Metz writes:

"The cinema begins, where the ordinary language ends: at the level of the "sentence" - the filmmaker's minimum unit and the highest properly linguistic unit of language. We then no longer have two arts: what we have is one art and one language (in this particular case, language itself)."²¹¹

Metz feels that narrative has a structural role in movies, and narratology can seem to offer structures independent of those visual and formal characteristics which repel the paradigms of structural linguistics. And further on Metz points out:

"It is within the framework of this opposition between the narrative and the image that one can perhaps explain, the awkward, hybrid position of description. We all assume that description differs from narration, and that is a classical distinction, but, on the other hand, a large number of narratives contain descriptions, and it is not even clear that descriptions exist other than as components of narratives."²¹²

Durgnat, on the other hand, feels that narratives are made up of descriptions and that a narrative is simply a *description* of a series of events, and narrative is simply a subtype of description.²¹³ Description is usually what we have in mind when we want something understood or explained:

"The definition of an automobile tells us very little about the ensemble of functions and factors that may be (a) indispensable to it, (b) regularly associated with it, or (c) potentially open to it. But the description, such as one might find in an automobile manual, requires many pages and includes complicated diagrams, involving us in ancillaries like gearboxes, alternators, carburettors. There are as many kinds of description as there are areas of discourse. Psychoanalytical man differs from

biological man, surgical man, anatomical man, social man. Each area of discourse is a conceptual structure, or system, partly autonomous from other systems, but destined to link with them in a 'structure of structures', or systems of systems, which would be a complete knowledge of man and which we cannot at present articulate."²¹⁴

Even within the special area of *visual apperance*, a man can be described cubistically, futuristically, romantically, expressionistically, naturalistically, or impressionistically. In each subarea there are as many subareas or subtypes of discourse as there are painters (or filmmakers), and the progression grows because new areas keep evolving, or aggregating, from the obsolesce of existing ones.²¹⁵

Durgnat thinks that there are competing tendencies in description:

"The first involves a stress on usual characteristics. Thus a gun turret is no part of the definition of a tank, and tractors also have tracks, but a description of usual characteristics will initially point out both turrets and tracks (until and unless design trends change). There is also a tendency toward minimalism (essential or principal or crucial points only), and one toward fullness. Indeed, very few literary descriptions, however elaborate or flowery, achieve the fullness they imply, for reasons Joyce's Ulysses, Butor's Degrés, Ponge's Le Savon, and Queneau's Exercises de Style demonstrate. For description usually has a guiding context other than the object itself, which frees the writer from the normally impossible and futile burden of detailing the thing in itself, exactly, completely and without contamination from (relevance to) outside factors." 216

The *impression* of objective description centers on (a) an ostentatious exclusion of obviously external thoughts about the described and (b) an unusual concentration on one or two token aspects of the object.

In contrast, a fully naturalistic description of phenomena in terms of their relation to the social or other systems and structures of which they are part normally requires free reference to physical context, social context, practical function and necessary concomitants. Such a description is non-objective when it refuses to isolate the object from its human context, or structure, and is intersubjective in that it allows certain phenomena of appearance and association.²¹⁷

Following Durgnat's formulation "a shot is a view from a fixed point, or (in the case of track or pan) a line (i.e., a continuous series of points).²¹⁸ Insofar as a shot is a scene, it is a description, and Durgnat goes on:

"Once we have firmly grasped the fact that the shot is a construction out of physical chronotopography (or topochronometry), where -as the sentence is not, it is entirely obvious that the correspondences between sentences and shots - or linguistic units and cinevisual units - can only be incidental - the product of semantic constructions from form. Since spatial-visual co-ordinations precede the acquisition of language, it is impossible to argue that visual-spatial perception derives from linguistic structures." ²¹⁹

Julian Hochberg writes:

"A more interesting issue arises in the various attempts to demonstrate the *Whorfian* hypothesis: that our thought processes and perceptions depend on our language. There is really very little evidence that linguistic structure affects our perceptions of the physical properties of objects that we are actually looking at, however. Colours that are easier to name are in fact remembered better (Brown and Lenneberg, 1854), but there is no evidence that they are actually perceived differently. Moreover, the ways in which preverbal infants categorise colours (as estimated by the way in which they direct their gaze from one colour to another, in an extremely

interesting procedure employed by Bornstein *et al.*, 1976) are essentially identical to the ways in which adults categorise or group colours. The structure of language does seem to affect how we encode and remember things, especially if those things are words or ambiguous pictures. But there is little evidence that our perceptions of physical properties are, under normal conditions, significantly affected by linguistic structure: The structure of the physical world is far more ubiquitous and powerful than that of language."²²⁰

Durgnat thinks that Metz has confused the word "shot" with the "image", because any shot showing movement must already be a sequence of differing images, parts of which move relative to other parts.²²¹ Visual and verbal functional equivalence seem to depend on very different semantic content:

"The shot is certainly a grouping unit, a syntactical unit, but as Metz understands, film has relatively little syntax and what it has isn't a condition of intelligibility as is that of language. Moreover, verbal syntax commonly obeys directives from other structures. The form of the text corresponds to the references of the text. For example, the order of sentences and clauses may correspond to the stages in a process or an argument, just as paragraphs and chapters do. Exactly the same is true of breakdowns into shots, choice of angle etc. Far from being a linguistic rule, it is a semantic rule about correspondences between linguistic and prelinguistic structures. The structures of film are largely function of our knowledge of the world (of which other films are only a part), and our expectations as to what we will - or need to be - shown."

Metz analyses and groups shots according to his syntagmas. Metz's syntagmas are relatively long units, which remain closer to stylistic choices, and the director organizes them mainly on the basis of his aesthetic intentions.²²³ For Durgnat these syntagmas are inert categories, knowledge of the world, because film theory

already understands how the juxtaposition of shots generates meaning (spatial or intellectual): montage theory is clearly a psychosemantic theory which subordinates forms to processes of comprehension. And secondly: the linguistic coupling of paradigms and syntagma risks mutilating the semantics. Metz has a category of "descriptive" syntagma, but he groups it under the chronological syntagmas, so his description of descriptive content is very summary:

"A shot of a tree with a shot of a nearby stream and a shot of a distant hill together constitute a landscape. But if this were the content of the syntagma, it would be unnecessary; a long shot would do it."¹²⁵

So, Metz reduces description to a statement of the bare fact of juxtaposition. Most of Metz's syntagma theory concerns chronology, narrative and spatial relationships, and but though he assigns narrative a dominant role, "none of his narrative syntagmas are defined in purely narrative terms." More likely, they are dominated by space-time considerations, which are functions of description. There are descriptions which exist outside narratives altogether, and there are descriptions which exist in the course of narrative, but they can be abstracted, and there are narratives which are descriptions of connections of events.

"Many types of film sequences correspond to descriptive passages. The establishing shot does not merely specify the locale for a narrative event; it has an informative (descriptive) function. Similarly with many close-ups. Many films linger on landscapes, constituting description rather than establishing a story point."²²⁷

Durgnat thinks that none of Metz's syntagmas explain the celebrated "Gods" sequence in Sergei Eisenstein's October (1927),²²⁸ because this sequence is non-narrative. It is based not merely on contrast, and not merely on variations of "one idea" (God), but constitutes a metaphor, or rather a complex way of differences and distinctions, of forms and connotations, which constitute an argument. Images of the Christians' God are compared with pagan deities, via the generalising idea (God), until He, too, is "contaminated" by fierce, ignoble, or ludicrous pagan forms:

"This contamination of connotations requires (1) a careful selection of statues, viewpoint, visual material, (2) editing interactions, and (3) a clear general context (vulgar Marxist atheism). In other images, relations and contexts, these very artefacts might illustrate the cultural richness of Third World art. Experimental re-editing might clarify the extent to which our preference for one interpretation or another derives from (1) the internal content of each shot, (2) their ordering within the sequence, (3) their overall context and (4) spectator choice."²²⁹

Interactions of this kind are possible because on descriptional level there are many elements working together in each shot. Semantic substance is essential in two examples, Harry Watt's *Nightmail* (1936) and Joris Ivens's *Rain* (1929).²³⁰

Nightmail is a documentary that follows a train from London to Edinburgh. This journey constitutes a space which is both continuous and non-continuous. The editing principle depends less on space traversed than on images juxtaposed. The journey hardly constitutes a narrative, more lyrical moments and aspects of description instead.

In *Rain* a shower begins and ends in a city, so the film becomes a description of a shower. It is a cityscape and rainscape with ambiguously simultaneous or successive shots, so the film corresponds to a painting. There are also more lyrical moments than moments of narration; it is a description of a shower and not a narration of it.

That is why Durgnat thinks that "chronology is merely a precondition for narratives, but they require something more besides: a sense of potential alternatives playing a significant role."²³¹

"And since film is a visual form, it is impossible not to adduce visual descriptions: still-lives, landscapes, portraits. However marginal these genres may seem, if one restricts one's attention to movies, we must remember that film also include 'home movies' which are normally descriptive."

These feelings and emotions can be pure abstractions, and the result may be totally fictious. Brendan Prendeville describes:

"Abstract reasoning happens independently of verbal and numerical processes; it is 'put into' these in order to test its applicability and its thoroughness. Spatial thinking feeds on our physical involvement with things, facilitates the mental manipulation of structures; its opposite depends on, or develops, a fluency with conventional systems, verbal and numerical. The first grows out of private experience, the second shows a 'public' concern for 'the way we do things'. The first generates experiments on the environment, the second controls these. The second operates predictably, according to law; the first operates unpredictably, according to individual (or 'inner') experience." 233

The point is that language follows sensory information. We learn about the world and our bodies by analogue sensation and natural languages work on top of this information. Recent research in visual perception

does not substantiate a portrayal of visual information by means of language-like learning of an arbitrary visual language. Visual information is processed by means of different (ecological, cultural, etc.) conventions. The human perceptual and cognitive apparatus is programmed to see the worlds directly, and we naturally make sense of visual information around us. The individual actively constructs the world by using all senses. We experience through as many senses as possible which is also related to the openness of the interpretation process.²³⁴ To interpret is to hypothesize about the intentional causes of whatever it is that is being interpreted. Gregory Currie thinks that interpretation is intentional explanation, and it proceeds according to the methodological canons that govern explanation in general, because we count one interpretation as better than another when it is simpler, more plausible, better supported by the evidence and in general more explanatory than the other.²³⁵

[Conceptual Dimensions]

According to Ian Jarvie, ²³⁶ it is not the material object that is being addressed when we consider the very possibility of thinking about film in general; we can loosely speak of content, referring usually to a form of narrative. The object of this kind of thinking is not material, and it is not immaterial or mental either. The people and the objects in the cinema are concrete, but the relationships between them are abstract, and some of them are just as much part of the picture as the object, because the

distance between them is just as concrete as the objects. Therefore, the stories in films, the plots, themes and meanings are also abstract objects.

Traditional aesthetics saw that the essence of cinema was in movement and cutting, but if cinema is a mongrel medium, then we must relate movement and cutting to all its affinities. Consequently, we have to take a new look at the cinema, to look at screen editing in a new way. Cinema is a performance art like theatre, but cinema is also a pictorial art, and pictorial signs are iconic in one respect and arbitrary in every other. Traditionally there has been very little talk about cinema's theatrical affinities, because of the heavy burden on montage and cutting. But a visually minded theatre director can also guide the spectator's eye by controlling the whole stage and using cinematic effects, manipulating the space between actors; thus theatre-space can also be very fluid and pictorially interesting.

During the silent period the miming in cinema was very effective; there was no use for picture or words, although often a silent film treats words as if they were pictures, and it uses typography and calligraphy in a kind of expressive way, which for example literature does not do, because literature actually does not understand the shapes of the letters. For example in Friedrich Wilhelm Murnau's Sunrise (1927) the letters illustrate the drowning of a woman. So that is an example of how letters can be half words and half picture, how a sign which is not pictorial turns into a pictorial sign. The basic element of theatre is not the setting, it is the presence of the actor.

And cinema uses actors because the story film depends upon the actor's personality, his ability to use gestures, postures, atmosphere and physiognomy. So cinema is a way of showing things, an act of showing, art of mise-en-scéne.

But cinema is also an art of visuals in motion, and Durgnat has further defined that "apart from current avantgardes (e.g. kinetic art) the only other arts of visual movement are ballet and mime - both theatrical arts". ²³⁷ But the director with a strong and sophisticated visual sense can make most of what we call pictoriality, the ability to cast and read sophisticated messages in a visual form. In other words, it is a question of nuancing the elements of cinema.

André Bazin spoke of cinema as an idealistic medium, ²³⁸ which was one way of creating an illusion of reality through some aesthetic and other choices. That is how Bazin's view shows how film theory either implicitly or explicitly posits the question of cinema's basic nature as a medium or language - in general, how cinema produces meanings - and also the question of the relationship of cinema and reality.

"Achieving the truth of a film image - these are mere words, the name of a dream, a statement of intent, which, however, each time it is realised, becomes a demonstration of what is specific in the director's choice, of what is unique in his position. To seek one's own truth (and there can be no other, no 'common' truth) is to search for one's own language, the system of expression destined to give form to one's own ideas." ²³⁹

The above is how Andrei Tarkovski has classified his thoughts about the role of the cinema. Tarkovski feels that cinema has its poetic meanings; although the methods might change, the only objectivity is the subjectivity of the author.²⁴⁰

And for Tarkovski:

"The dominant, all-powerful factor of the film image is *rhythm*, expressing the course of time within the frame. The actual passage of time is also made clear in the character's behaviour, the visual treatment and the sound - but these are all accompanying features, the absence of which, theoretically, would in no way affect the existence of the film. One cannot conceive of a cinematic work with no sense of time passing through the shot, but one can easily imagine a film with no actors, music, décor or even editing."²⁴¹

Mast sees that the flow of film moves steadily, but within that forward flow one can distinguish between three kinds of "movement", three kinds of succession: (1) *literal* (the succession of frames), (2) *imagistic* (the succession of shots) and (3) *structural* (the succession of "events").²⁴² Mast also thinks that Eisenstein was one of the classical film theorists who built their theories on the premise that the imagistic succession of shots (rather than the literal succession of frames) was the essence of the cinema art.²⁴³

According to Mast:244

"Visual succession in a film is an optical illusion, the illusion of wholeness and continuity produced by the movement of celluloid through the projector. Cinematic succession makes whole out of mere pieces: (1) an apparently fluid whole out of obviously disparate frames; (2) an apparently spatial or temporal or imaginative whole out of obviously disparate shots; (3) an apparently structural whole out of obviously individual 'events'."

The photographing of reality is an essential trait of some kind of cinema, but it is not the essence of cinema itself, although Siegfried Kracauer has claimed that "the basic properties of film are identical with the properties of photography. Film, in other words, is uniquely equipped to record and reveal physical reality and, hence, gravitates toward it".²⁴⁵

Eisenstein and Arnheim had slightly different opinions on that subject because they felt that the cinematographic process was not mere copying of reality, but - as Arnheim stated²⁴⁶ - the cinema reduces three-dimensional life to a two-dimensional surface, and through that it alters our perception of it with lenses, which see unlike the eye, and with camera angles, which see as the artist wants to see.

Related to that, Gerald Mast thinks:

"But do we perceive the projected image as two-dimensional at all? The very fact that we call one object in the projected image apparently close to or far away from another implies that there is some kind of mental translation of the two-dimensional image into three-dimensional terms. In the cinema, when we see large and small, we translate our perception either into close and far (based on our awareness of relative distances and the sizes of objects in life) or into not so close or far but deliberately distorted for some effect by the lens. We perceive the projected image as a kind of three-dimensional system, once we have learned to translate it (which means that we must learn to watch cinema, just as we must learn any system of translation - and just as we learn to translate sizes into distances in life)." ²⁴⁷

Eisenstein among other Russian theorists was the first to see the full possibilities of the early fragmentations of space and time in cinema. The emphasis was on cutting, which depended on showing. That is how Eisenstein brought to film an eye as 'painterly' as that of the German expressionists, and Eisenstein-type of editing

became part of film language generally and featured particularly in the work of film theoreticians and documentarists, who were often the same people. Stefan Scharff thinks that, like science, cinema works with a set of facts and has the ability to reduce larger phenomena to primary components.²⁴⁸ Further on, he thinks that the resulting cinematic experience is the sum of several processes operating together, because visual forms converging with factors of meaning create tensions, and cinema solves the problems of functioning on so many perceptual levels at once through its own specific structures.²⁴⁹ As Durgnat has stated,²⁵⁰ the theoreticians wanted to prove that the cinema was a fine art, with its own "purity", even if the "passive" camera had to content itself with passively recording reality. And the documentarists tended to take what they were photographing as "given", as something which they were not creating so much as interpreting. According to Durgnat, the formal language of cutting can be analysed into four elements:

"There is the 'collision' of one composition against another - as in Dreyer's La Passion de Jeanne d'Arc, and of course, in Marker's La Jetée, which is cut from still images, and shows how cutting can exist as forcefully between static images as between moving ones. Often again, the static elements of the image can be 'carried away' by bold movement, which becomes the predominating element, so that images can be cut as movement against-movement (as in the example from Intolerance and in the Odessa steps). In the films of Jean Renoir, the individual image is often so loose and free as hardly to exist as an entity, and the whole view of man is implied in their cameras' continuous movements, through 'free', 'continuous' space. In other films again, the composition of individual images is not merely displeasing, or comparatively neglected; yet the central

action is strongly and carefully modulated (as in the metronomed sequences from *Our Daily Bread* and *Queen Christina*).^{251"}

So we can think that all these different styles are merely a matter of emphasis, and they can be counterpointed in various ways. Juri Lotman has demonstrated that there are two tendencies present in the language of cinema: one based on the repetition of elements or on the everyday or artistic experience, which establishes expectations, and another which violates this system of anticipations, singles out semantic bundles in the text. According to Lotman, furthermore, at the basis of film meaning we find a displacement, a deformation of customary orders, facts or appearances of objects.²⁵²

Lotman is quite strict in his distinction between convention and novelty, whereas we most often seem to swim through life, expecting a stream of surprises. When something unusual happens, we scarcely think that it has violated our routines. That is a point of view which semiotics use a lot: the human mind works with extremely rigid patterns, meaning is specified, everything is coded, conventioned, and stereotyped, and language tells you what the structures are. If reality is different from the structures of language, one hardly notices it because one's mind is so bound into what comes over it. The mind operates parallel processing using multiple systems, whose structures interact but are not logically coherent. In reallife operations one moves through a continually fluctuating world, and even in routine-like walking cars turn up in unexpected places and one suddenly bumps into people; so the whole of life is a series of surprises,

and one's mind is adjusted to deal with that, one is not surprised to be surprised. There is a growing interest towards that what the spectator knows rather than believes. In a way, the spectator "functions" within film narrative. This is possible to analyze in terms of cognitive processes. The spectator is the locus of a double rational and cognitive activity. First, he or she activates general cognitive and perceptual processes which enable him or her to understand the image. Second, the spectator uses forms of knowledge, that are in some way bound with the text itself. These cognitive moments are essential, so, the psychology of the spectator is a very special mixture of knowledge and belief. In a way, the spectator accepts an entire system of representational conventions that are themselves based on a knowledge of the cinematographic apparatus.

[Connotations]

Aesthetics often praise poetic symbols for their richness of connotations, rather short-changing signs, whereas semiology, defining itself as the science of signs, commonly proposes that connotations are fickle or elusive.²⁵³ Durgnat prefers to emphasize the speed with which context and/or style can transform a simple-denotation sign into a complex-connotation symbol:

"It often happens that denotations may be rapidly thrust to the periphery of meaning while a connotation takes over. Thus 'rose' can rapidly and normally come to denote one of its own connotations: beauty, freshness, blushes, erotic excitement, the female labia; or thorns and therefore blood and martyrdom

(but even here, there is always the idea of a *loving* martyrdom...); or the purely technical processes of horti-culture; or the 'English rose'... etc."²⁵⁴

And further on:

"It will be seen that the same item, 'rose', possesses various connotations, some of which it would be distinctly paradoxical to bring together (it would be strange, or witty, or metaphysical, or mannerist to describe a rose by mixing horticultural-technical terms with erotic ones). Or one might move from 'rose' to 'thorn', from 'thorn' to crown of thorns', and from there to 'Jesus', who would become the 'rose of man'. The move from 'thorn' to 'crown of thorns' requires/reveals (1) a specifically Christian culture, and (2) pressure from ideas of sustained suffering as glory, etc. And one element in literary art, as in chess, is that of unexpected move. Though *permitted* by connotation chains, it is not *determined*, in its context, by them."

Symbols constitute semantic entities, which may exist independently of the code or medium through which they are mediated, and independently of particular signifiers, yet and at the same time, they may sensitively respond to contextual and stylistic "transformations" or inflections. The danger is in fixating a one-to-one relationship between signifier and signified, to think that the meaning is firmly pinned to a certain denotation. A traditional distinction between sign and symbol implies that the latter has a meaning too diffuse or too rich to be immediately recognized.

So, at each stage language permits many alternative moves, and a creative thinker proposes particularly unusual but valuable ones. Given so many coexisting structures, with repermutations, flexibilities, impurities and incompletenesses, it is not surprising that sets and networks often provoke multiple interpretations. This multiplicity is distressing only if one demands a work of art to be a definitive statement or to facilitate an (objective) interpretation. The cognitive approach to aesthetic perception is a part of a wider understanding of a phenomenology of aesthetic experience. This is a kind of theoretical framework which gives a possibility to connect together different point of views concerning space, process, and experience.

As Durgnat points out:

"Without falling into solipsism, or denying that works of art can be relatively unambiguous, or that, even given ambiguity, some interpretations are better than others, it is often useful to think of a text as an *objet trouvé* whose meaning is projected into it by the reader; it is an object to help him clarify his thought, more like a chess game with many outcomes than a riddle with only one answer." ²⁵⁶

In a cognitive process one thing leads to another, but it is not a digression, and the things that one remembers must also be chunked. Gordon Rattray Taylor thinks that memory, like perception and other brain functions, must be hierarchic.²⁵⁷ And there are not only chunks but also chunks of chunks and chunks of chunks of chunks of chunks. Each level may have a different code.²⁵⁸ R. L. Gregory writes in *Mind in Science*: "One might say that hypotheses of science serve as chunks for conveying large amounts of information economically, and that object perception is the chunking of bits of sensory information so that we *see* objects."²⁵⁹

Perception, emotion, and cognition are essential to the perceiver's view of how, for example, films formal qualities function. The perceiver is not totally in the world of the work because the over time changing backgrounds would otherwise be incapable of affecting her understanding of a given work. The perceiver is not a passive subject but an active one, contributing substantially to the final effect of the work. There are many processes involved with this, physiological, preconscious, conscious, and unconscious. Some perceptions are automatic responses beyond control, for example, film's medium depends upon these automatic abilities of senses and human brain. A lot of the object recognition is preconscious, and these kind of mental processes differ from physiological activities because they are available to the conscious mind. Much of reaction to film's stylistic devices might be preconscious because one learns different cinematic techniques, for example, from classical films. Photography depends on freezing the movement of that moment, so photography falsifies the world by freezing it, and by falsifying it, it gives the world expressive strength. Film works exactly the opposite way: it starts with a movement, and it unfreezes the world; even when the world is static, one can, by moving the camera, give movement to the static world. Film is not a photographic art so much as it is a performance art because still-photo thinking is a reverse of moving thinking. So one essential filmic operation can be considered sequential linking of spatial images. The motion picture in itself is an event because it looks different every moment, whereas there is no such temporal progress in painting or in sculpture. Motion being one of its outstanding properties, the film is required by

aesthetic law to use and interpret motion. Consequently, for a spectator many kinds of shifts in viewpoints (through varied camerawork) may be completely invisible, because he or she looks through the images, not at them, and therefore has little or no idea where one shot ends and another one begins. A sense of the image appears to a perceiver only when the film draws attention to itself, or when a perceiver has made a close study of the medium.

For example, cinema is labelled by selectivity, viewpoints, which are developed through choices. Even the shortest documentary contains a lot of organising, a point of view of fiction. So the essential cinematic strategy contains the idea by which one can hide things in a film, in order to gradually reveal them. Through this kind of mechanism a series of cinematic shots shape into a series of emphasizes, throughout the selective and manipulative role of the camera. That is why film is not a reproduction of reality, because, once a scene has been cut into shots, we are not working anymore with the reproduction of reality; instead, we are working with the statements referring to that reality. In a sense film seems "real", because it reproduces the way we see things in the world; it has not got so much to do with the fact that it reproduces the world exactly, but it reproduces the way in which we look at it. Cutting into shots sometimes corresponds to selection and manipulation, like when in a film one hides themes in order to reveal them, which sometimes corresponds to the way in which one normally uncovers reality (one sees a thing in a long shot, then walks up to it, and it is in close-up; then one walks around

it, and it is like a cut or camera movement). In many films this may reproduce normal perception, which in one sense is manipulation and in another it is not. Selection can rely on natural processes, natural perception, and it can rely on manipulation as a trick made by the filmmaker. Most of our thinking goes on in the intervening areas between reality and fiction, which can be called speculation or hypothesising; that is an area of uncertainty. One can think that the aim of original art is to put our thought processes onto a new relation with the world, onto a conscious level in challenging our habitual ways of perceiving and thinking.

As Noël Carroll defines:

"The task of the theorist of an art is not to determine the unique features of the medium but to explain how and why the medium has been adapted to prevailing and emerging styles, and at times, either to defend or condemn the prevailing or emerging purposes artists pursues ... by finding reasons – artistic, moral, and intellectual – that count for or against those styles, genres, artworks, and their subtending purposes which confront us in the thick of the life of the culture." ²⁶⁰

The study of mental phenomena has undergone big, and in many ways profound changes in the past twenty or thirty years. For example, during the behaviourism era, psychologists quite deliberately ignored contentful thought and concentrated on low-level processes of perception and learning. These processes were assumed to be essentially similar across contents and species. This kind of approach had little to contribute, for example, to the social sciences. The cognitive way of thinking was a welcome return to the early sources of psychology, to the roots of the thinking mind. It was made with new, modern,

intellectual tools. The aim was to describe mental processes as natural ones, so, complex psychological processes are being decomposed into elementary processes. The computer models are used to describe the workings of neural mechanisms. Cognition allows organisms to exert control over their interactions with the environment, and not only to react to their internal states and events at their own surface, but also to attend to objects and events that are away from them in time and space.

In art educational thinking aesthetic objects and aesthetic experiences are closely linked together. In studying them, we can still see some differences.²⁶¹ The aesthetic object is the thing the perceiver is perceiving when she or he reaches for the aesthetic experience. One can do distinctions between practical, everyday perception and specifically aesthetic perception. One can think that art is a special realm separate from all other types of cultural artefacts because it presents a unique set of perceptual requirements. Works of art plunge us into an aesthetic, cognitive, and playful type of interaction. They also renew and enlighten our perceptions, thoughts, and other mental processes because thinking about art is a kind of mental exercise. Art can be understood as the mind's urge to understand, to discover, to invent, to make real, and to give meaningful shape of objects under scrutiny. Works of art offer a possibility for aesthetic contemplation, so, that perceptions can be renewed and expanded. This kind of perceptional quality can also affect to our perception of everyday objects and

events. The aesthetic realm can an object of interest in itself. Aesthetic thinking and aesthetic contemplation is an active process, it is restless searching and testing as. for example, Nelson Goodman has noted.²⁶² The perceiver looks for cues in the work of art, and responds to them with perceptional skills acquired through experience gained from perceiving other works of art, and through one's knowledge of the world. The perceiver is involved in the levels of perception, emotion, and cognition, and they are more or less bound up together. In aesthetic experience emotions function cognitively, and the work of art is appreciated through the feelings and senses.²⁶³ Works of art engage the perceiver at every level and change our ways of perceiving, feeling and reasoning. Works of art change our habitual perceptions of the world around us, and the transformation takes place through their placement in a new context and their participation in unaccustomed formal (and other) patterns.

[Notes]

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- 11. Andrew, Dudley (1989) 'Cognitivism: Quests and Questions,' *Iris* 9, Spring: 1.
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- 16. Can theories of mental imagery, conscious mental contents, developed within cognitive science throw light on the obscure but culturally very significant concept of imagination? Three extant views of mental imagery are considered: quasi-pictorial, description, and perceptual

activity theories. The first two face serious theoretical and empirical difficulties. The third is (for historically contingent reasons) little known, theoretically underdeveloped, and empirically untried, but has real explanatory potential. It rejects the "traditional" symbolic computational view of mental contents, but is compatible with recent situated) cognition and active vision approaches in robotics. This theory is developed and elucidated. Three related key aspects of imagination (non-discursiveness, creativity, and seeing as) raise difficulties for the other theories. Perceptual activity theory presents imagery as non-discursive and relates it closely to seeing as. It is thus well placed to be the basis for a general theory of imagination and its role in creative thought.

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- 18. Sobchack, Vivian, (1992) The Address of the Eye: A Phenomenology of Film Experience. NJ: Princeton University Press, 72.
- 19. Ibid., 73.
- Gregory, Richard, L. (1981) Mind in Science: A History of Explanations in Psycho-logy and Physics. London: Penquin Books (reprinted 1988). 420
- 21. Goodman, Nelson (1976) Languages of Art: An Approach to a Theory of Symbols. Indianapolis: Hackett, 40, 143.
- 22. Weitz, Morris (1962) The Role of Theory in Aesthetics. In J. Margolis (Ed.) *Philosophy looks at the Arts. Contemporary Readings in Aesthetics* (pp. 48-62). New York: Charles Schribner's & Sons.
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- 25. For example, the abilities to categorise visual and tactile characteristics, to see underlying structures, and to perceive principles of design, and to discriminate among design elements are seen as parts of aesthetic study and aesthetic perception.
- 26. Räsänen, Marjo (1998) Building Bridges: Experiential Art Understanding. Helsinki: University of Art and Design, 63-83.
- 27. Ibid., 3.
- 28. Ibid., 67.
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- $30.\,According \,to\,Gibson, the\,active\,or\,mediated\,perceptual\,process\,posits\,an$

- interpretative step that intervenes between sensation and cognition. The signs sent to brain by the various senses during the investigation of a stimulus will be synthesized by the brain and s new sign will be created. See, Gibson (1966) *The Senses Considered as Perceptual systems*. Boston: Houghton, Mifflin.
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- 32. Kindler, A. (1994) Artistic learning in early childhood: a study of social interactions. *Canadian Review of Art Education*, 21 (2), 99-106.
- 33. However, the term "mental imagery" may be potentially misleading in itself. For one thing, all these expressions suggest, more or less strongly, a purely visual phenomenon. In fact, most discussions of imagery, in the past and today, have indeed focused upon the visual mode. Nevertheless, there is every reason to believe that other modes of quasi-perceptual experience are just as common and important, and "imagery" has come to be the accepted scientific termfor referring to them too: interesting studies of "auditory imagery", "kinaesthetic imagery", "haptic (touch) imagery", and so forth, can be found in modern psychological literature.
- 34. See, Ellis, John (1989) Visible Fictions: Cinema, Television, Video. London: Routledge, 74.
- 35. Kosslyn, Stephen, M (1994) Image and Brain: The Resolution of the Imagery Debate. Massachusetts: MIT Press.
- 36. Ibid.
- 37. Ibid.
- 38. In an artwork functions are crucial to understand the unique qualities of a given work. Any given device serves different functions, and the challenge of an analysis is to find the functions in different contexts.
- 39. According to Rudolf Arnheim perceiving consists in the formation of perceptual concepts, and the process of vision seems to meet the conditions of concept formation. Vision is a creative activity of the human mind, and perceiving accomplishes at the sensory level what in the realm of reasoning is known as understanding. See, Arnheim, Rudolf (1974) *Art and Visual Perception*. Berkeley: University of California Press, 46.
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- 42. Gregory (1981), 273.
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- 44. Ibid.
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- 50. Anderson, Joseph, D. (1996), 11.
- 51. Ibid., 15.
- 52. Bordwell, David (1985), 62.
- 53. Carroll, Noël (1988), 207.
- 54. Ibid.
- 55. Ibid., 103.
- 56. Ibid., 140.
- 57. See, Carroll, Noël (1988), 201.
- 58. Ibid.
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- 60. Ibid. 110.
- 61. Tarkovsky, Andrey (1986) Sculpting in Time: Reflections on the Cinema, translated by Kitty Hunter-Blair, London: The Bodley Head, 113.
- 62. Ibid., 118.
- 63. Ibid.,108.
- 64. Ibid.
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- 73. Ibid.
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- 142. Ibid., 79-91.
- 143. See Hochberg (1978), 60.
- 144. Durgnat, Raymond (1983) "Through the Looking Sign", *Quarterly Review of Film Studies*, Fall, 6-7 (offprint). Durgnat thinks that theoreticians like Arnheim gain a powerfully dynamic and sensual way of analyzing pictorial forms.
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- 146. See Wilding (1982), 49.
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- 148. Ibid. Further on Durgnat thinks that sound introduces an intriguing paradox, because sound is informationally less rich than light. Sound relates primarily to the vibrations of physical substances (a length of catgut, etc.) whereas light is infinitely more responsive to the surface features of individual objects. By and large, therefore, light, and sight, are richer in information about the outside world.
- 149. Durgnat uses an example for analysis, it's a still from Michelangelo

Antonioni's film *Cronaca di In Amore*, 1951, which gives possibilities for different kinds of point-of-view variations and also for many ways of interpreting a picture. See Durgnat, "Through the Looking Sign", 7.

- 150. Ibid..6.
- 151. Burch (1973), 34.
- 152. Ibid.
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- 161. Ibid., 32.
- 162. Rosenbaum, Jonathan (1995) *Placing Movies: The Practice of Film Criticism*, University of California Press, London, 57. Rosenbaum thinks that Tarr is much more of an artist than Peter Greenaway, especially when it comes to the use of lighting.
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- 165. Durgnat (1984), 97. See also about cinematic syntax, Scharff, *The Elements of Cinema*, 21-35, and the chapter "Form" in Arnheim's *Art and Visual Perception*.
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