film as film
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Films are Formal Experiment in Film 1910-1975

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Artist film-makers are not manufacturers of the escapist dreams of conventional cinema; indeed they have almost wholly rejected narrative and concentrated on film's formal qualities. They have looked as closely at the material of film, its physical and visual characteristics as painters and sculptors have at the formal nature of their activities. 'Film as Film' should perhaps be 'Film about Film'; this concentration on the medium has created 'film-makers' and 'film' rather than 'film directors' and institutional 'cinema'.

Our exhibition traces a history from a period when artists were making both paintings and films (one often the source of the other) to the present where technology and the current debate in film studies have had a major impact. What unites the film-makers of the 70s with those of the 20s is a continuing insistence upon an artisanal mode of practice; their films are essentially and often literally the work of one author.

We have reworked a project originally conceived by Birgit Hein and Wulf Herzogenrath and shown at the Kunstverein in Cologne and we are particularly grateful to Birgit Hein for her continuing advice throughout this project. Our thanks are extended to the English committee who have worked on this exhibition, particularly Deke Dusinberre and Al Rees.

The Goethe Institute, London, has helped us financially with the catalogue which accompanies the exhibition. We are, of course, indebted to the many film-makers who have loaned material for the exhibition but most particularly to the London Film-makers Co-op and the film and stills departments of the National Film Archive for their generous assistance.

DC/RF

Hans Richter: Präludium scroll painting 1919
Introduction

The exhibition 'Film as Film', and this catalogue, derive from an earlier exhibition, and an earlier catalogue, mounted at a number of West German galleries and museums in early 1978 organised by the film-maker and historian, Birgit Hein, and Wulf Herzogenrath, Director of the Cologne Kunstverein. One purpose of the original exhibition, and of the documentation which accompanied it, was to provide not only a showcase for a wide variety of films and associated artefacts from the history of the avant-garde cinema, but also a context for a particular tradition within that history — that we associate with the so-called 'formal', 'structural', or, latterly, 'structural-materialist' film. This was a route, as the sub-title of the German catalogue described it, from the animated film of the 1920s to the 'film-environment' of the 70s. A further purpose was to broaden the traditional 'space' of film consumption, by placing the films alongside, on the one hand, a display of related visual and audio-visual artefacts (drawings, paintings, etc.), and on the other, the archive of documents and verbal commentary contained within the exhibition catalogue. The German version of this exhibition can then be more directly seen as proposing a series of cultural polemics: laying stress not only on the complex history of the international avant-garde, but also forging a particular path through that complexity; providing a critical context for the cinema by associating it with the general art historical space of the West German gallery and museum circuit.

For this exhibition, we have taken up these directions from our positions within the similar and different system of British culture in the arts and film. Rather than simply reproducing the excellence of the German model, we wished to play our part in the debate by understanding the exhibition, and its catalogue, as vehicles for producing fresh perspectives on the historical and aesthetic analysis made by our German colleagues. We wanted, for example, to re-examine broad assumptions about the general status of avant-garde cinema, and in the process to examine still more closely the definitions, and the implications, of the 'formal' and 'structural-materialist' project central to the original polemic. We wanted to explore areas still incompletely studied, notably the French and Soviet avant-gardes of the 1920s, the 'lost' experimental movements of the 1930s, and, more broadly, the still submerged history of women workers in the avant-garde tradition. We wanted, too, of course, to keep pace with the accelerating range of avant-garde tendencies circumcribing 'structural-materialist' film-making in the period of the German exhibition and our own. In following the German model, but re-interpreting it within a slightly
later, British, context, we have therefore understood our task as that of extending the range of issues — not only aesthetic or historical, but theoretical and political — which is implied in the very notion of an avant-garde, or of avant-gardes, at large. Moreover this of course engaged us not only on behalf of the world of 'art' — with its established interest in these questions — but also that other world where Modernism, of whatever colour, is still a vastly less familiar notion: the world, the institutions, of 'the cinema', and of 'film culture'.

Phillip Drummond
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Notions of Avant-garde Cinema

Phillip Drummond

The Cinematic Context: Dominant Cinema

The Dominant Economic and Social Base

Our definition of avant-garde film will clearly hinge upon the qualities we associate with the broader context of ‘mainstream’ or what we might call ‘dominant’ cinema. In this case, the avant-garde will then be typified by its ‘opposition’ to norms and values within its ‘opposite’. If we then first refer to the social practice of the mainstream cinema, to its economic and social ‘base’, we can argue that the dominant and mainstream cinema is strongly marked by its alliances with concentrations of economic and social power. In certain situations these alliances associate cinema with the power of the state, but more usually with the ‘private’ sector under capitalism. Most characteristically, the dominant cinema will belong to ‘entertainment’ and ‘leisure’ complexes with aspirations and tendencies towards conglomerate and monopoly. As industrial products, mainstream films then have direct relationships to capital and class, through their restrictive patterns of ownership coupled with their ‘mass’ marketing and exploitation; and while these films are ‘dominant’ precisely in their reproduction of dominant ideologies within this set of interests. Massive social and political implications flow from developed versions of this sketch of the cinema in dominance. But, for all the determining force of the economic and industrial features of the cinema — fundamental, as we shall see, to the differences produced by the avant-gardes — they are in other senses ‘relative’ to other aspects of the ‘total’ institution of the cinema. That is to say, the cinema performs more general ideological operations than those determined quite ‘directly’ by the immediate economic or industrial base. It also has its ideological effects at various levels of mediation, through the formal apparatus of the cinema as a specific signifying practice or ‘machine’, and through film-works themselves, as specific sets of textual practices. The economic and industrial predominance of mainstream film, in other words, is matched by its hegemony at the level of aesthetics; mainstream cinema ‘dominates’ not through coercion, but through its formal and stylistic lures and appeals. This is partly because films ‘themselves’ become, for the spectator deprived of access to or knowledge of the economic ‘scene’ of film production, the seeming ‘totality’ of cinema: cinema, not only film, made visible. This classic ideological operation — the masking and displacement of ‘real’ forms by the ‘phenomenal’ — is the major device by which the spectator is secured. He/she is both deprived of knowledge, and yet bestowed with an apparent and immediate plenitude — the ‘fullness’ of the dominant film, in this sense ‘on the side of’ the spectator, and to that extent detached from its earlier moment of production. Thus when we speak of economic and industrial determinacy in the cinema, we must recognise the work of film in the partial obliteration of that determinacy, installing in its place the primacy of the moment of production which is the spectator’s reactivation of and by the film. If this is then one form of sleight-of-hand by which the mainstream film enjoys hegemony, rather than by ‘direct’ economic or industrial domination, what are then the details of its operation?

Dominant Film Form: Realism, Narrative

A repertoire of strategies and effects supports the aesthetic and ideological hegemony of mainstream cinema. The dominant film, for instance, will consist of the regular projection of static, rectangular frames of light, intercepted by ‘frames’ of darkness, at sufficient speed (twenty-four frames every second) to encourage the eye to perceive apparent continuity and motion (thanks to the physiological phenomenon known as ‘persistence of vision’), a fundamental perceptual illusion attacked by many of the films within this exhibition. These images, in addition to their determinate on-screen duration, will assemble into the generally determinate durations of the ‘feature film’. They will usually be accompanied by a synchronised soundtrack comprising a mixture of dialogue, music, and sound-effects. The nature of both ‘images’ (visual and aural), and their assemblage into the totality of the film, will obey further common constraints. In general terms, it will be true to say that both will be based upon principles of ‘semblance’ or ‘representation’, through the image-band’s reproduction of conditions of three-dimensionality by means of strongly organised perspectival structures, and through the sound-band’s subordination, for all its varied ‘substances’, to an ‘illustrative’ function, usually in terms of the stress on dialogue to support and explicate the predominantly ‘human drama’ of the picture-track. To this point cinema could be said to rely to a considerable degree upon certain notions of the ‘real’ and ‘realism’ in the construction of its imagery, a ‘realism’ which, in another feat of ideology, will tend to efface the evidence of the production apparatus of the cinema (camera, film-stock, lens, lighting, processing) in favour of the seemingly unmediated ‘presence’ of the pro-filmic ‘real’.

Notions of realism at the level of the paradigm (the film frame), propose visual continuity between ‘real’ and
'image', and hence stress above all the 'iconic' function of the camera-apparatus. They conjoin with other notions of 'the realistic effect' at the level of the syntagm (the gathering of film-frames into shots, and shots into such larger segments as the scenes and sequences and more complex shot groups). That is to say, the illusion of continuity between frames encouraged by the persistence of vision will be reinforced by a stress on continuous action from frame to frame, and from shot to shot; the 'variety' provided by the segmentation of film into shot-syntagms will be overlaid by drives which stabilise this difference in the interests of consequentiality, continuity, and coherence. These drives are codified in the industrial grammars of film editing, which emphasise the differential and yet cohesive power of the cut, dominated by concern for spatiotemporal 'matching'.

The single term loosely applicable to summarise these tendencies towards sequence and coherence, and hence circularity and closure, may be the term 'narrative', for narrative it is which both demands and provides these conditions for film fiction. Narrative is relative to realism: the 'realism' of the image, proposing an unmediated contiguity between the 'real', the 'image', and the 'spectator', is what fixes the spectator in a position of specular control, through 'recognition', of the film image; narrative, similarly, is a further tendency in the text, by assimilating and subordinating other tendencies and discourses — for instance, through the typical narrativisation of spatial and temporal co-ordinates — offers itself as the 'vantage-point' from which the text may be recognised, controlled, and understood. Tentatively, then, we might propose that 'realism', in different senses, is the aesthetic mode governing not only the construction of the film image (visual and aural), but also the collection of such images into a decipherable totality. Narrativity and realism then play an ideological role in 'placing' films and their spectators, spectators and their films, in relativity to each other. The 'Classic Realist Text' explored in recent film theory thus obeys, in its relationship to ideas of knowledge and control, not only an aesthetic but moreover an important ideological imperative within the work of cinema.

Compilations
The tendencies I have been outlining represent the bare bones of a possible analysis of the aesthetic and hence ideological functioning of mainstream cinema. But dominant cinema, following Raymond Bellour's pioneering analysis of the complex textual productivity of such mainstream classics as The Birds or North by North-West, or Stephen Heath on Touch of Evil, could never be so simple, nor could its own internal vanguards (in differing positions, for example, the so-called cinema of Expressionism in 20s Germany, the French 'New Wave' of the late 1950s/early1960s) be so simply undervalued. The 'realism' I have claimed for the film image in general, for instance, needs to be set off against the complex stylisations this 'transparency' receives within the dominant cinema; systems of film-construction could be adduced to nuance my overall suggestion as to the crue towards organicism and coherence in film narrative; the psychology of film perception calls for much fuller grounding in the psychoanalysis of perception in relation to the model of fiction. But again in general terms, we might describe these characteristics as composing a basic paradigm, varied from film to film, which film-makers of the avant-garde may be seen as challenging, explicitly or otherwise. If these are base-components of the dominant film, what are then some of the general features of the avant-garde, and of its films?

An Alternative Context: Avant-Garde and Modernism
A Different Economic and Social Base
The cinema, or cinemas, of the avant-garde pose a number of alternatives to mainstream models, determined by a different set of ideological imperatives and motives. At the level of the 'base', to repeat the sequence of our former survey, we can see that avant-garde films have a less direct relationship to dominant forces of production. Characteristically, these films will be produced outside the dominant systems of production and exploitation, and hence place themselves in a different and usually less stringent economic relationship to audiences. The varieties of this relationship, ranging from a long tradition of private sponsorship on the part of numerous artists in the history of the avant-garde, to the increased availability, in recent years, of institutional funding through grant-aid (currently, in Britain, through such agencies as the Arts Council, the British Film Institute's Production Board, and the Regional Arts Associations) ensure that there is no simple avant-garde economic alternative, no total dissolution of the ties with capital, but rather, a diminished or oblique relationship to profitability at the economic level.

To a certain extent, as we shall see, this economic shift logically produces, as one aspect of the new complexity, a new oblique connection to notions of the 'audience': building in one sense a new cinema of 'authors' by encouraging a less inhibited or less heavily codified notion of self-expression, the avant-garde in turn makes more complex the pragmatic model of 'communication' operated in the mainstream film. This different form of economic determination has other ideological implications for the avant-garde. In locating the avant-garde from the strict 'commercial' context, it will also foster different social practices for the production, distribution, and exhibition of films by comparison with the complex division of labour characteristic of the dominant industry, and the monopolistic integration of production/exhibition/distribution systems. Avant-garde and independent variants on this model run the spectrum from individualism to collectivism. They embrace the artisanal virtuosity of the 'total' film-maker (a prototype pioneered by Stan Brakhage, its economic stringencies endorsed by a world-view compounded of broad humanism, Romanticism, and Existentialism) to the energy of socialist film-making collectives such as Britain's Cinema Action, who not only produce and distribute but prefer to exhibit or 'perform' their work as well. The work of the latter, raising questions about the politics of film activism, may thus be seen as doubly vanguard: vanguard firstly in producing films dealing with contemporary instances of class struggle and hence intervening in the literal 'politics of cinema'; secondly, in creating sites for analysis and discussion of film, and hence intervening in a second sense in the broader politics of
film seen as a regulated system for processes not only of identification but also of separation between producers, texts, spectators. In both cases, new use-value is installed on behalf of the object 'film'.

These different relationships to the economic base, routed through different ways of understanding the production/exhibition/distribution chain, give rise, as my choice of examples suggests, to an extremely broad range of aesthetic and ideological differences between 'avant-garde' and 'dominant' cinema. Broadly speaking, the economic and organisational differences I have described, all of which combine to scale down the size and purpose of the classic industrial model, all tend inevitably to separate the cinema from its position within the 'mass' media and within the leisure complex. Instead, they replace the cinema within other discourses — notably, but, as we shall see, not exclusively, those discourses associated with the visual and plastic arts of painting, sculpture, graphic design, dance and music. In making this connection, these differences also serve to associate the cinema with the dominant evolutionary trend within these new discourses, the discourse of Modernism, with its own avant-gardes. We might say that while mainstream cinema by and large perpetuates the realist imperatives of the nineteenth-century literary, dramatic, and visual tradition to which it is heir, and which it arrives to 'consummate' at the turn of the century, the cinema of the avant-garde, over and above the alternatives it proposes to the dominant cinematic models, draws its inspiration from developments and tendencies within its newer context — Modernism in the arts.

New Views on Film

The relationships between the cinema and Modernism in the arts and human sciences more generally are not simple. For example, Modernism is connected, not only through the early relationship between individual artists (or art movements) and the cinema, but through the cinema itself intervening at a point of crisis (succinctly analysed by Walter Benjamin) for the work of art in the age of mechanical reproduction. Certain general features of Modernism, however, are immediately appropriate for discussion of the notion of an avant-garde film practice. To begin with, these include an attempted displacement of hegemonic fictional models — in this case the Classic Realist Text already outlined — by a broader and more fragmented set of types and genres, so that the topographic 'field' of cinema is fragmented and set in motion. Certain categories then move closer to the other media, especially painting, and so 'blur' the parameters of the cinema as a self-contained and substantive entity. Secondly, within this variety of practice, we tend to be confronted by a conspicuously Modernist preoccupation not only with new 'subject-matter' but, more radically, with the processes and apparatus of sign-production in themselves, or, more crudely, with issues understood as those of 'form'. Taken as a central problem, this soon leads to notions not only of the relative autonomy, but also of the primacy and determinacy, of 'form', and hence to classic and recurrent controversies in Modernism over 'form' and 'content'. Thirdly, Modernism thus sets train, for the cinema, a complex set of questions over the social nature of film-practice. In fostering fragmentation, in re-locating the cultural position of cinema, Modernism also generates political debate over the role of the cinema, in its varied forms, as a social agency; and, in its participation in the Modernist elaboration of 'language' problems, over the sites and levels of that social 'effect', the possible positions of audiences and spectators, the mysterious 'effects' of film.

These features, the extremely generalised 'effects' of a simple and essentialist account of Modernism, contribute to conspicuous shifts, across the avant-garde, in the formal paradigm of the Classic Realist Film as sketched above. In general terms, these shifts can be seen to hinge upon the remodelling of Classic Realism — with its ideological 'weight' seemingly on the side of the 'unmediated' real, as described, and on the 'fixture' of the spectator — by the displacement of its central terms (realism, narrativity), in a spectacular 'intversion' of film practice, folded back upon its own inherent fictionality. It will in this sense hinge not simply upon broad questions of film 'form', but, crucial to any understanding of the ideological operations of the cinema, upon the central question of the 'specificity' of cinema, and film, as signifying medium, apparatus, institution. This is not to argue, in the first place, that the 'realism' of narrativity, even in the simplicity of my working definitions here, is victim of a simple process of expulsion — as though its hegemony were not precisely a matter of resilience — from the repertoires of the avant-garde. The avant-garde is of course notorious for its sometimes painstaking, sometimes preposterous, 'deconstruction' of narrativity, through playing with, and re-cycling, its components; eminently studious examples for the recent avant-garde 'feature' film, would be Jacob's Tom, Tom, the Piper's Son or Rainer's Kristina Talking Pictures. But the avant-garde's attitude to classic narrativity need not be so ruthlessly 'analytic' or 'deconstruct' with such flagrant determination.

The Play with Narrative

One of its major strategies, on the contrary, will be precisely to exploit and to enhance the dynamics of narrativity through complication, through elaboration of the proairesis (the armature of causal and effective actions) and hermeneutic chains (those conceptual networks of motivation and explication, organised for the spectator in terms of 'knowledge' and 'enigma') central to, but clarified and closed within, the Classic Realist Text. This elaboration of narrativity was a project dear to an early phase of American avant-garde activity, represented for example by the 'strong' but proaetiocally and hermeneutically perplexing 'plots' of the psychodrama, such as Deren's Meshes of the Afternoon, Angel's Fireworks, Brakhage's Way to Shadow Garden, or the 'ritual' exercises (Angel's Scorpio Rising and Inauguration of the Pleasure Dome). This is a tendency which continues and persists in a tension between processes of narrativity and of visual abstraction in such different works as Brakhage's Dog Star Man, Snow's Wavelength, the Berwick Street Collective's '6 to '77, and Greenaway's A Walk through H. In these films the avant-garde differs from and does not merely 'reject', the possibilities of narrative. A third and seemingly paradoxical relationship between the avant-garde and narrativity is provided by such central instances as early and mid-period Warhol, where narrativity is not even necessarily 'complicated' in the terms
set out above. The 'ultra-transparent' narrativity of Chelsea Girls, for instance, — or of couch, cannot be ade-
quately explained in terms of simple notions of avant-
garde abandonment of charaterial proscriptive, and her-
hemeneutic protocols; indeed, what is the difference here
between the cinema of the 'avant-garde' and the 'classic'
in its 'primitive' prototypes?

What might perhaps be more precisely argued is that
avant-garde works tend to provide different permutation
of narrative understood as linear, temporal, connective,
and, eventually 'closed' channels of enunciation, 'binding'
the addressee (the spectator) in the closure of its logic, the
logic of its closure. Instead, it would seem, avant-garde
film will explore other 'structural' and 'organisational'
models, from the 'open' models of aleatory procedure to
the 'closure', more extreme than narrativity itself, of 'sys-
temic' constructs. Hence an early interest, through the
work of Brakhage, in the 'lyric' mode, which involved an
understanding of the 'poetic' in terms of compression and
condensation. This tendency towards the 'poetic' could
move, like avant-garde treatment of narrativity, in more
than one direction: on the one hand towards the vol-
uptuous profusion of heterogeneity and surplus, or, on the
other, towards the asceticism of minimalist practices. To
return to Warhol, for example: Chelsea Girls, in fact,
depends upon the rarefied principle of minimal seg-
matical, minimal editage, imposed by the procedure of
the 'single-take': the film is 'structured' by the 'spont-
aneity' of pro-filam action 'permitted' and yet 'stabilised'
by the single-take and the fixed camera. It represents, in
other words, and contrary to my earlier suggestion, no
simple reversion to narrativity, with the latter's more
obviously complex forms of structuration. This minimalist
or ascetic structuralism, in evidence not only in early
Fluxus work but in recent English film, then contrasts
strongly with that other, more fully heterogeneous poetic,
based frequently upon the fertility of editing procedures,
that heterogeneity associated with the structural 'vol-
uptuarios' — Anger, Mekas, Rice, Baillie, or Mar-
kopolous.

The New Status of the Image
It was this kind of explosion of the semiotic, through the
'surfacing' and foregrounding of repressed and hence
invisible structural codes, that would quickly lead to the
very genre of the so-called 'structural film' (described
more fully in these pages by Birgit Hein) and, more
recently, of Structural-Materialist film (to which I return
in my final section). But the shift from 'narrativity' to the
'structural' entailed a more immediate, and broader,
implication. For this shift also logically involved an altera-
tion in the status of the cinematic image itself, since
this too was deeply implicated in the uncovering of new
forms of structuring film. That is to say, if 'extensive'
structures for temporal organisation, duration, frequency,
and continuity were subject to revision, then too was the
'integrity' of the image, seemingly bound 'directly', by'
'analogy' to the 'real'. This new exploration again
exposed, instead, the structuration of the visual. This
departure was to take various forms, fundamental amongst
which was that overarching analysis of narrativity to
which we have already been referring. With superstruc-
tural features renovated, the image was no longer 'sec-
ured' or 'guaranteed' by narrativity, but could be exposed
to the heterogeneity of dissociationist editing procedures,
and of multiple superimposition or juxtaposition through
projection. There were to be other corresponding drives
at work within the image: a movement towards abstraction
which would contest the assumed iconic, referential
function of the cinematographic image; alternatively, a
'materialist' film practice which would instead 'concretise'
by exposing the codes at work in the structuration of the
image, Landow's Film in Which There Appear Sprocket
Holes, Edge Lettering, Diet Particles, etc. provides a play-
fully tautological version of this practice. Fred Drummond's
Portrait of Kurt Kuen an eerily suspenseful variant. No

longer anchored in narrativity, the image was no longer
bound in by the verbal, either in terms of the need to
illustrate a scenario or to draw 'support' from dialogue.
Image-sound relationships within the avant-garde could
instead hear not only the marks of unilateral asceticism
(silence). but also the very opposite — the speech-
band luxuriant and the image constant in its spareness
(Snow's A Casing Shelby), or each riddlingly 'relative' in
their interpenetration (Brakhage's Blue Moses).

The general play on narrativity, and on the status of the
filmic image, had considerable ontological repercussions.
To begin with, what was implied was nothing less than a
transformation of the 'object' film. The camera, pro-
cammed, could obviate simple notions of authorial inter-
vention and self-expressivity (Snow's Back and Forth and
Central Region); the optical printer could become the site
not only for the reproduction but the production of film
imagy; the moment of projection could in turn become
a moment of production, of the 'performance' of a no
longer 'insulated' image-flow within a broader and
'mixed' spectacle. These movements of the avant-garde
towards new modes of existence for the object 'film', with
all their implications for the changing role of the spec-
tator, are copiously illustrated in the exhibition. But what
should be stated here is that such variety — its ambition
nothing less than an attempt to open out the repetitious
 closure of the mainstream cinema to a new infiniti — is
most radical in the very fact of its own heterogeneity. For
it surely compels analysis of those very differences within
the avant-garde, and so leads to more complex notions of
relativity, even contradiction, than those permitted by
the present sketch. The urgent question: are all these tenden-
cies of equal value? Is our 'history' nothing less than the
sum total of their pluralism, or do we need the history of a
thesis through their difference? After the provocation of
our initial binary opposition — 'dominant' versus 'avant-
garde' cinema — what are the implications of a second
elementary enquiry — how many avant-gardes?

How Many Avant-Gardes?

Towards Film History
So far I have described some of the general features of
avant-garde cinema in terms of a provisional and hence
elementary binary opposition between 'dominant' and
'alternative' models. These contrasts have a certain
polematic force, and produce convenient and even telling
differences. But they run the danger of oversimplifying
the relationship by 'forcing' differences in the interests of
separation, and of making each side of the opposition
stark and monolithic, generalised and timeless. If we have
already recognised the danger of misrepresenting the mainstream, how then are we to clarify our reservations in the case of the avant-garde? How may we be more specific and more lucid, about the 'internal' varieties and complexities of avant-garde film practice, and how may we introduce diachronic notions — of time, and of history — into the analysis?

One way of answering this question is to accept the separate-ness of avant-garde film, and to proceed upon this basis to construct an 'historical' account of this separation, perhaps by means of the familiar historical device of linear chronology. Thus 'periods' of avant-garde film activity are reconstituted by the historian, tending, when combined into an internal 'progression' or 'evolution' of styles and subjects. Whether the sequential connections are haphazard or determinate, this kind of account would in the whole tend to locate the origins of avant-garde film-making in the innovative art movements of the 1910s and 1920s (Futurism, Cubism, Dada, Surrealism). It could then pick up the thread, following the 'trough' of the 1930s and the intervention of the Second World War, with the re-emergence of independent film activity in the late 1940s as independent even, in its new maturity, of the 'care' of the other arts. In the post-war period it will go through a number of major phases — from a preoccupation with film psychodrama (the early work of Anger and of Brakhage, the Deren œuvre) to an on the one hand increasingly formal concern with lyricism (Brakhage) and abstraction (the US West Coast film-makers) and, on the other to mythopoiesia (also Brakhage). Of these tendencies, it is the formal which predominates in the 60s and 70s, or in other words those works explicitly adopting the level of the cinematic and the filmic as their major focus, the 'structural' film-makers of the 1960s and, amidst the ensuing plethora of subjects and concerns, the structural-materialist work of the late 1960s and early 70s (discussed more fully in my final section).

This rapid paraphrase of the common 'evolutionary' model once provided, it can be nuanced to embrace internal divergences and even counter-tendencies. Within the 1920s 'block', for instance, we are challenged to examine the divergent modes of works traditionally assembled into the singular consistency of the 'twenties avant-garde'. This is, it then transpires, a diverse and multi-layered composite of differing aesthetic tendencies. To gather but a few strands, it combined the epic Cubist fascination with the object, with the technological, and with multi-perspectival montage, together with a fascination for Charlie Chaplin and for dance-forms, to be found in Léger's Ballet mécanique with the meticulous deconstruction of realist narrative, and of erotic melodrama, of Buñuel's Un Chien Andalou it combined the drive towards geometric, musical, and sensual abstraction in the work of Richter, Eggeling and Fischinger with the renovated documentaries, complexified by the material play of montage, in the case of Dziga Vertov.

We could repeat and extend this elementary process of historical and aesthetic refinement for other periods and passages in such a 'history' of the avant-garde. It is a crucial task, and one which pushes us towards an increased understanding of the plurality and diversity of avant-garde aims and achievements in concrete instances within the history from Futurism to Structural-Materialism. In this volume, such contributions as Ian Christie's study of French avant-garde film work in the 1920s, Dekejuinberre's archaeology of the 'lost' vanguards of the 30s, Peter Weibel's reading of the cinema of Kubrick, and Al Rees' general charting of the cultural contexts for the evolution of the avant-garde all supply clear evidence of the value and the interest of this form of historical contextualisation and re-connection. At one level this exhibition, like these writers, addresses nothing less than the poverty of historiography in relation to the avant-garde film.

But the urgency of the return to history also calls for other models for the reconstruction and re-presentation of the 'past'. In addition to localised historicist analyses, we also need broader models capable of globalising these individual initiatives, of checking merely academicised appropriations of avant-garde film history. Already having moved away from the superficialities of a binary opposition between 'dominant' and 'avant-garde' cinema, perhaps I will surprise the reader by returning at this point, for special reasons, to precisely such a model. If I return once more to such a set of oppositions for reconsidering the 'history' of the avant-garde, it is once more for the sake of overview, and hence of the polemic, that it produces. The polemic is provided by the perhaps surprising proposition that, in spite of the claims I have just been developing for the sumptuous pluralism of avant-garde film practice, there may in fact in another broader sense be no more than two avant-gardes at work within the numerous years, and films, and authors, within the apparent luxury of choice, represented in this exhibition. How could this be?

The Notion of the 'Two' Avant-Gardes

These 'two' avant-gardes are of course the two proposed by Peter Wollen in a recent influential essay of this title. The force of Wollen's proposition is to introduce the crucial notion 'ideology' into the history of the avant-garde, ideology in the simple sense of 'frame of reference' or 'world-view' as mediated, and produced, by different cinematic forms and practices. Wollen's 'ideological' reading of the 'evolution' of the avant-garde is thus concerned with the possibility that there are two broad tendencies at work within its history: on the one hand, that central group of film-makers and works closely associated with tendencies in the fine and plastic arts, and hence in pursuit of what might loosely be called a 'formalist' trajectory — on the other, that smaller but increasingly important group of film-makers who have attempted a still more fundamental critique of dominant modes in their exploration not only of the formal properties of film, but film-form understood as the ideological site for the mediation, of social and political concerns. The former represents the 'classic' avant-garde of Eggeling, or Brakhage, and its key reference-points are formal issues within the arts; the second group is made up of the 'analytic' avant-garde of Vertov, of Godard, and of Straub, whose reference-points take in aesthetics through the filter of notions of the social and political.

This opposition, for all its simplicity, can then be used as a tool for reassessing the very 'modernism' of avant-garde film aspirations. To return once more to the international European avant-garde of the 1920s, for example, would
thus yield an opposition between the social and political cinema of Vertov and of Eisenstein (themselves produced within a culture well versed in the issue of the ‘formalist’ problematic) and the work of the contemporary French and German avant-gardes, with their commitment to formal experiment directly influenced by advances in the visual and literary arts. Coming up to date, to the 1970s, the period which produces the very concept of the ‘two’ avant-gardes is the very period of a similarly marked general opposition within its own film culture. Here, it is a difference characterised by the broadly speaking ‘formal’ work associated, in terms of production/distribution bases, with the London Film-makers’ Co-operative, and work on broader and more explicit notions of ideology, notably emerging from the British Film Institute’s Production Board. Two recent major feature films from the English avant-garde, encapsulating this difference, might be seen as Le Grice’s experiment in forms of narrativity, Blackbird Descending, compared with another use of landscape and location in the interests of developing political and historical methods of narration, Mulloy’s In the Forest.

The Case of Vertov
A more classic and more central instance of the difference between these avant-garde positions, on the politics of form, is provided by a single case — the work of the early Soviet film-maker, Dziga Vertov. For it is Vertov, more than any other pioneer, whose own attempted fusion of formal and ideological concerns — and indeed, sometimes his failure to fuse the two — has been differently understood and ‘used’ by figures in the different avant-gardes. When, after May 1968, Godard and Gorin combined into the ‘Dziga Vertov Group’, this re-designation marked their political re-affiliation to Vertov’s cause, the politics of the left documentary, redefining the ‘real’ through the dialectic of film montage and the ‘camera eye’. But this was only one appropriation of Vertov, exclusive to the ‘second’ of Wollen’s avant-gardes. Within the ‘formal’ avant-garde what was absorbed was Vertov’s editing aesthetic, and the formalities, shorn of his political concerns, of his theory of cinematic ‘intervals’. This is the Vertov claimed by Peter Weibel elsewhere in this catalogue as the progenitor of Kubelka’s complex minimalism, an influence explicitly deprived of politics by Weibel so that Vertov may sit easily with Kubelka’s other major formal inspiration, Webern. A fuller reading of film history would perhaps have redefined Vertov himself as being just as deeply implicated as any subsequent film-maker of the very tensions of those tendencies separated out, posed in opposition, in the model of the ‘two’ avant-gardes.

The Case of ‘Structural-Materialist’ Film
Terms and Definitions
Our exhibition does not attempt to address the full complexities of the debates over the ‘two’ avant-gardes, over the ‘formalist dilemma’ within the Modernist development. Following the main lines of its West German prototype, for instance, it does not encompass the work of Godard and of Straub, and tends, as we have already noted, to underplay the ‘art and politics’ debates within the Soviet avant-garde by ‘formalising’ Vertov and by placing greater emphasis upon the abstractionist traditions of the German cinema itself. The present exhibition has broader, and in many ways more traditional, objectives, directing its address at the level of ‘art history’ and inserting cinema through this discourse into the institution of art culture. But these debates, central to consideration of the cinema in relation to notions of history, culture, ideology, become pertinent in another form to this event. This occurs when these arguments over ideology and cinematic form are recast, in the recent period of avant-garde activity, in the work of the so-called ‘Structural-Materialist’ film-makers, and the theoretical positions which subsume their work. It is here, we might say by way of preface, that we encounter the most pressing recent claims for the progressive ideological value of what appear to be extremely formal operations within cinema, a case thus challenging, and threatening to dissolve, the separation of these concerns into the ‘two’ avant-gardes of Wollen’s model.

Structural-Materialist film is associated largely with the work of British and European film artists in the later 1960s and early 1970s. It represents a more complex and more polemic form of the early 1960s ‘structural’ film. The main lines of the enterprise were sketched out by the London film-maker Peter Gidal as his contribution to the 1975 Studio International survey of avant-garde film in Europe and the UK — a survey which incidentally also included Wollen on ‘The Two Avant-Gardes’ — before they were remodelled as Gidal’s introduction to his Structural Film Anthology (BFI, 1976, revised 1978) a volume designed to contextualise a National Film Theatre season consisting of eighteen programmes and nearly 100 films. Featured in the season were films by the British Structural-Materialists Le Grice, Drummond, Hammond, Gidal, Dunford, Raban, Etherley, Crosswaite, Du Cane (Rishi) and Leggett; the North Americans Breer, Sharrits, Snow, Landow, Conrad, Frampton, Jacobs; and the works of Kren, Kubelka (Austria), Mommsert, Nekes and the Heins (West Germany), and Seip (Holland). The breadth and prominence of the season, and of the anthology, buttressed by the publication in 1977 of Le Grice’s polemic history, Abstract Film and Beyond, ensured a key position for the category of Structural-Materialistic film in British film culture in the second half of the 1970s.

Many of the general avant-garde film tendencies we have already been describing find a place in the work of Structural-Materialist film. According to Gidal’s manifesto, for instance, Structural-Materialist film sets itself against dominant cinema in a first gesture of rejecting narrativity, and with it the ‘illusionism’ of mainstream film aesthetics. Instead, Structural-Materialist film demystifies that illusionism through emphasis on signifying elements specific to the cinema and to film, so that a commitment to ‘representation’ is countered by an emphasis on ‘presentation’, on laying bare, of the process of ‘production’, not that of fixed and stable ‘reproduction’. In general terms, that is achieved not through an interest in film ‘content’ but in film ‘material’, so that what is at stake is not merely the ‘deconstruction’ of film narrative but rather the entire internal dialectic of film construction. In Gidal’s terms:

‘The structuring aspects and the attempt to decipher the structure and anticipate/rectify it, to clarify and analyse the production-process of the specific image at any
specific moment, is the root concern of structural-materialist film."

Semiotically speaking, this is carried out by a new kind of film language, in which 'symbolic' or 'expressive' time-schemes give way to a new interest in 'real' time and duration, and in terms of an image-practice based on a literal understanding of linguistic notions of the 'arbitrariness' of the signifier. Thus 'introverting' film activity, these practices are justified at the theoretical level in that they are seen as enabling Structural-Materialist film to expose its own ideological workings, whereas these are suppressed by the illusory 'referentialism' of mainstream cinema. Which does not permit positions of reflexivity. And it is the reflexivity of Structural-Materialistic film that is taken to produce reflexive spectators, producers, rather than consumers of film meaning. The passive, immobilised and ideologically 'fixed' spectator of the dominant cinema is then replaced by the Structural-Materialist spectator, immobilised, engaged but distanced, by the visiblyachable operations of the text, his/her consciousness/perception actively at work on ideology.

Challenges and Problems
I run through Gidal's categories to establish that, taken at this general theoretical level, they do not construct a case radically distinct from the overall map of avant-garde 'differences' sketched in earlier. Nor are they radically distinct, as a combination, from those oppositions previously proposed, in the early 1970s, by Wollen, for the analysis of a different kind of film 'materialism' (Goddard's Vent d'Est — representative of another avant-garde?).

A fundamental source, for instance, if again a rather different politics of art would be provided by Brecht's discussion in the twenties, in the notes on Mahagonny, of contrasts between 'classic' and 'epic' theatre. How easily can these putative influences be transferred to the formal avant-garde? And how appropriate is Gidal's valuable stress, new to formalism, on 'materialism' and 'dialectic' and on the ideological problems created for the spectator?

There are at least two immediate questions raised by the inclusion of these complex forms within the Structural-Materialist vocabulary. Firstly what is the relationship between 'Structuralism' and 'Materialism', both as film practices and as major theoretical pursuits and disciplines within the human sciences? Can the uses be separated out, especially since it is within the sciences of historical and dialectical materialism that notions of the political and ideological are most fully developed? Does Structural-Materialism represent anything more than a reductionist appropriation of these terms? Secondly, and following from this query, how precisely do these terms designate definable levels of the film system? Or do they generalise? In other words, how do notions of the 'Structural' and 'Material' separate themselves from the elementarily 'physical', and how do the terms relate to the more complex systems of film codification elaborated by film semiotics, notably within the work of Metz?

If these issues are in doubt, queries follow on the internal logic, and polemic value, of the aesthetic. The stress on material self-reflexivity courts the danger of circularity and tautology which are central problems in the formalist dilemma; and it is possible that we are faced with a project whose emphasis on a general notion of the 'dialectic' is undermined by what is, in fact, an essentialist ontology, stranded in the cul-de-sac of 'film as film'. And are these areas of potential contradiction not inevitable, given a polemic against the mainstream cinema lacking full analysis of the theoretical complexities of representation and signification in general? This certainly raises problems over the applicability of the terms to selected bodies of film work. How extensible, for example, are the terms beyond the two dozen titles provisionally listed in Gidal's charter, or the one hundred in the National Film Theatre season? How accurately do these films bear out the thesis, and what kind of textual analysis is required to demonstrate Structural-Materialist principles specifically at work within a given text? Or, following our own earlier self-criticisms, to what extent are the binary oppositions between dominant and Structural-Materialist film based upon an idealist and essentialist system of polemic?

Finally, how accurate is the polemic's placement of the text-spectator relationship? To what extent, for instance, does the polemic, in the absence of a broader theory of film 'reading' or of textual analysis, produce too simply 'psychological' a model of film 'perception', posited upon a problematic notion of spectator 'consciousness'? Is it perhaps the case that the polemic's foreshortened theory of perception 'under' Modernism requires fuller elaboration in terms of a fundamental analysis of the psychoanalytic features of film 'vision' and the psychoanalytic construction of the spectator? These doubts have large-scale implications for the polemic's theory of ideology seemingly located at the level of the 'mis-apprehension' of film structure and material. To what extent, in other words, can the 'regeneration' of the spectator come about through 'correct' film reading, or to what extent must any change be part of changes in the overall institution of the cinema?

The value of the current formulations of Structural-Materialist film is that they serve the polemic's function of re-introducing elements of ideological and political discourse — 'materialism', the 'dialectic' — and vestiges of the psychoanalytic project in terms of an interest in the 'processing' of the spectator. To a certain extent, these claims seem to bridge the notion of the 'two' avant-gardes mapped by Wollen. But the polemic is provocative at an expense. Polemic terms are insufficiently elaborated, sometimes slackly recombined, and usually inadequately grounded in the texts to which they refer. They struggle to politicise the Structural-Materialist project, but are ultimately trapped within the formalist problematic, and so can only reinforce its crisis. Thus vexed, Structural-Materialist film cannot in any simple sense then represent what Gidal, encouraging National Film Theatre members in a programme note, could in 1976 describe as 'the most important and advanced filmwork now being produced', or what LeGrice, concluding Abstract Film and Beyond the following year, could view as representing 'the most advanced and radical state of cinematic language and convention'. What are the areas and topics for further work and clarification?

Conclusion
A variety of issues and problems is raised by the 'Film as Film' exhibition in relation to the cinemas of the avant-
garde. These issues circulate, as I have attempted to suggest in this introduction, around such notions as film history, ideology, film form, the institution of the cinema, and the spectator. History: the challenge to produce accounts of avant-garde film history which are themselves historically active interventions. In the context of a dominant cinema, still largely deprived of access to its own history, all the more reason to ensure that histories of the avant-garde do not collapse into simple positivism, simple ‘descriptivism’, but are based on broader and perhaps more urgent historical drives, notably around the contextualisation of contemporary avant-garde and independent film-practice. This is one important function of the exhibition.

Hence the return, in this introduction, to such polemic concepts as the notion of the ‘two’ avant-gardes, loosely divisible into the ‘formalist’ and ‘theoretical-political’ projects. Over and above the specific details of avant-garde film practice, I have been suggesting, one influential view is that avant-garde and independent film activity can be seen as oscillating between these two historic poles within the overall trajectory of Modernism. The area covered by this exhibition falls, boldly speaking, into the former category, yet places an important emphasis on such current evolutions as ‘Structural-Materialist’ film, where, as we have seen, an ambitious if problematic attempt is made to theorise a formal cinema in broader ideological and political terms.

The emphasis I have been placing upon the importance of notions of ideology thus directly reconnects to questions of film form. Outstanding at the very least for its commitment to the exploration of film form, for its radical work on film material, for its attack on the dominant ‘realist’ aesthetics of the mainstream film in its pursuit of the Modernist ‘logic of the signifier’, its participation in the Modernist ‘crisis of the sign’, avant-garde film practice poses the problem: to what extent, and in which terms, do these formal departures represent ideological interventions in their own right? How do we attach theories of meaning to formal activity, and how do these interact with broader discourses upon ideology and signification? What kind of discourse — in film, on film — is needed?

History, film form, ideology: what of the institutions of the cinema, including that central institution, the spectator? These are in many ways the crucial points of departure from which to ‘visit’ the exhibition and to ‘tour’ its catalogue. Organised by the Arts Council of Great Britain, and presented in a major metropolitan gallery, what relation can the exhibition have, beyond the sphere of art practice and art history, to the world of cinema, with its different institutional location? Does the event, by any reckoning a major initiative and a clear index of the growth of film activity within British art institutions, perhaps ‘recuperate’ the shock and challenge of avant-garde film-practice? How may film activists, and the general public, draw upon the riches of the knowledge it provides in relation to their own knowledge of, and relationship to, the cinema? Equally important, what kind of institutional history, and institutional framework does it provide for film-makers of the contemporary avant-garde and independent cinema?
Part 1: 1910-40
In 1913 the futurist painter Luigi Russolo called for 'futurist music' based on noise and mechanical sounds: 'Today, the machine has created many varieties and a competition of noises, not only in the noisy atmosphere of the large cities but also in the country that, until yesterday, was normally silent, so that pure sound, in its monotony and exiguity, no longer arouses emotion... We take greater pleasure in ideally combining the noises of trams, explosions of motors, trains, and shouting crowds than in listening again, for example, to the Eroica or the Pastorale.' Futurist music abandoned conventional musical notation as well as conventional instrumentation. In 1914, Russolo conducted his *insonarumori* ('noise-intoners') in a performance of *The Awakening of a City* at the London Coliseum.
The Futurist Film

Borgit Hein

Futurism is the first art movement to incorporate the new media of photography and film as major features of its "difference". The Futurist photographs which Anton Giulio Bragaglia produced in the years after 1911 enjoy a close thematic and aesthetic relationship with contemporary Futurist painting. They relate back equally to the end of the 19th century... moving objects constantly multiply themselves; their form changes like rapid vibrations, in their mad career.' Otto Stelzer selects this quotation from the second Futurist Manifesto of 1910 'which can be related to the chronophotographic images just as to the later paintings following 1911'.

The film-work of the Futurists remained a long time in oblivion, few of their films now surviving. A reconstruction can only be carried out today, incompletely, from literary sources and a few handed-down stills. All the same in our context the question of the relationship between the film-work and the remainder of the Futurists' artistic work is significant. Does there exist an aesthetic and thematic affinity similar to that between painting and photography? In the 1916 Manifesto The Futurist Cinema established by F. T. Marinetti, Bruno Corra, Emilio Settimelli, Arnaldo Ginna, Giacomo Balla and Remo Chiti, of which extracts are reproduced below, we find an expression of the Futurist vision:

"At first look the cinema, born only a few years ago, may seem to be Futurist already, lacking a past and free from traditions. Actually, by appearing in the guise of "arte senza parole", it has inherited all the most traditional sweepings of the literary theatre. Consequently, everything we have said and done about the stage applies to the cinema... The cinema is an autonomous art. The cinema must therefore never copy the stage. The cinema, being essentially visual, must above all fulfill the evolution of painting, detach itself from reality, from photography, from the graceful and solemn. It must become anti-graceful, deforming, impressionistic, synthetic, dynamic, free-working.

ONE MUST FREE THE CINEMA AS AN EXPRESSIVE MEDIUM in order to make it the ideal instrument of a new art immensely vaster and lighter than all the existing arts. We are convinced that only in this way can one reach that polyexpressiveness towards which all the most modern artistic researches are moving.'

The themes of Futurist film are stated in a series of 14 points, for example: '7. FILMED DREAMS OF OBJECTS (objects animated, humanised, baffled, dressed up, impassioned, civilized, dancing — objects removed from their normal surroundings and put into an

Anton Giulio Bragaglia The Bow 1911

Anton Giulio Bragaglia
Photograph of Balla in front of his painting Dynamism of a Dog on a Leash. Balla has moved during the exposure paraphrasing the multiple image effect of the painting.
abnormal state that, by contrast, throws into relief their amazing construction and nonhuman life) ... 9. CONGRESSES, FLIRTS, FIGHTS AND MARRIAGES OF FUNNY FACES, MIMICRY etc. Example: a big nose that silences a thousand congressional fingers by singing an ear, while two policemen's moustaches arrest a tooth ... 11. FILMED DRAMAS OF DISPROPORTION (a thirsty man who pulls out a tiny drinking straw that lengthens umbilically as far as a lake and dries it up instantly) ... Painting + Sculptures + plastic dynamism + word-in-freedom + composed noises (intonarumori) + architecture + synthetictheatre = Futurist cinema ..."

Contrary to the general introduction of the Manifesto, which refers to painting and film as visual media, it becomes clear in the examples that it is rather a question of a new form of action and narration, reminiscent of the later Dada and Surrealist films. This is confirmed by the descriptions provided in 1965 by Arnaud Ginna in the magazine Bianco e Nero of the now missing film Vita Futurista, which he directed in 1916 with the authors of the Manifesto. The film consisted of eight different scenes, performed by the Futurist actors. One scene is described as a love story between the painter Balla, and a chair. The last scene shows a 'Discussion with boxing-gloves between Marinetti and Ungari'. From Michael Kirby's reconstruction, it emerges that the film indeed employed various new filmic means of expression, such as for example multiple exposure, work with distorting mirrors and hand-colouring; nevertheless the contemporary concern of the film lay in the provocative and absurd plot. The same year Anton Giulio Bragaglia directed three films: Il mio Cadavere, Il perfido Incanto, and Thais. The first two have both probably been lost.

The contents of Il perfido Incanto are described by Michael Kirby as romantic, melodramatic, and old-fashioned. He established that the stills published under this title come in reality from the film Thais, which survives in the Cinémathèque Française. The sole Futurist influence in Thais was in the painted decor. The plot was similarly melodramatic to Il perfido Incanto. Like Italian Futurism, Russian Futurism also took issue with the form and function of film. But here too no works of the early period have survived, against which the results of this challenge may be assessed. As far as the first Russian Futurist film is concerned, Drama of the Futurist Carabass: No 13, directed in 1913, by V. Kasyanov, M. Larionov and N. Goncharova, all that exists is the brief phrase of Jay Leyda, who describes the film as 'a parody on the prevalent genre of the film guignol'. In any case, it is clear that it is not an abstract film, but rather that here too, as in the Italian films, there are anticipations of Dada and Surrealist motifs. Nevertheless the Futurist movement is also of significance for the abstract film. In hindsight it seems remarkable that the Futurist film manifesto of 1916 does not look back to non-representational film, for one of the co-authors, Bruno Corra, had already published an article 'Abstract Film — Chromatic Music' in 1912 in which he details two years of experiments carried out with his brother Arnaud Ginna and describes a number of the films that resulted from them.

Unfortunately for research, these films are no longer available. They have probably been lost. But the tone and details of the 1912 essay sound so convincing, that one can hardly doubt that these labours produced concrete results.

Corra and Ginna proceeded to seek for the harmony of colours an analogy in the harmony of music. 'Naturally we applied and exploited the laws of parallelism between the arts which had already been determined ... This confirmed our idea, which had anyway preceded our study of physics, of adhering to music and transferring the tempered scale of music into the field of colour. We know, however, that the chromatic scale consists of only one octave, and that, on the other hand, the eye, unlike the ear, does not possess the power of resolution (although rethinking this point, I realize that one must have reservations). Yet we felt the obvious need of a subdivision of the solar spectrum, even an artificial and arbitrary one (since the effect stems principally from the relationships between the colours that impress the eye). Consequently we selected four equally distanced gradations in each colour. We had four red chosen at equal distances in the spectrum, four greens, four violets, etc. In this way we managed to extend the seven colours in four octaves. After the violet of the first octave came the red of the second, and so on. To translate this into practice we naturally used a series of 28 coloured electric light bulbs, corresponding to 28 keys. Each bulb was fitted with an oblong reflector and the first experiments were done with direct light, and in the subsequent ones a sheet of glass was placed in front of the light bulb. The keyboard was exactly like that of a piano (but was less extensive). When an octave was played, for example, the two colours were mingled, as are two sounds in the piano.'

After Corra and Ginna had composed a few colour sonatas they abandoned their light-organs, for they were dissatisfied with its light-intensity. When the bulbs were bright enough, the heat discoloured them and they had therefore continually to be re-coloured. 'We turned our thoughts to cinematography, and it seemed to us that this medium, slightly modified, would give excellent results, since its light potency was the strongest one could desire.' They got hold of hundred-metre lengths of film, removed the layer of emulsion, and applied the colour. To obtain fluent colour-transitions, they removed from the projector the intermittent mechanism and the shutter. But this way they achieved the opposite of their intentions. They replaced the parts in the machine and looked for another solution. This occurred when they chose the single frame on the film-strip as the unit of colour. Five of the films of the following period are discussed in greater detail by Corra in his article. Here is how he described three of them:

'To hand I have three chromatic themes sketched in on strips of celluloid. The first is the simplest one could imagine. It has two colours only, complementaries, red and green. To begin with the whole screen is green, then in the centre a small red six-pointed star appears. This rotates on itself, the points vibrating like tentacles and enlarges until it fills the whole screen. The entire screen is red, and then unexpectedly a nervous rash of green spots breaks out all over it. These grow until they absorb all the red and the entire canvas is green. This lasts a minute.

The second theme has three colours — pale blue, white and yellow. In a blue field two lines, one yellow, one white, move, bend together, detach themselves and curl up. Then they undulate towards each other and
The first abstract film ideas of Leopold Survage are clearly part of this context. While Corra and Ginna certainly worked with pure light in their first experiment, it clearly emerges from their texts that they moved on, in their work with film, to the animation of abstract forms. Malcolm Le Grice and others have argued that these films certainly looked little different from the later hand-painted films of Len Lye and Norman McLaren, and, in this context, one might further consider the early abstract films of Harry Smith. ‘In other respects, the descriptions, for example, of two lines undulating towards each other and intertwining or of a small cube diminishing and enlarging, forming columns and lines interpenetrating, deforming etc., could easily be applied to early work by Walter Ruttmann or Oskar Fischinger.’

Translated by Phillip Drummond.

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2. Ibid., p. 218.
4. Kirby, ibid., p. 139. (Kirby is in fact here only describing the original publicity pamphlet for the film — trans. note).
8. Malcolm Le Grice, Abstract Film and Beyond, London, 1977, p. 19 (Though Le Grice continues in his following sentence to distinguish between the ‘jittery quality characteristic of hand-painted films caused by the inevitable slight misregistering of the successive images’, probably to have been found in the work of Corra and Ginna, and the ‘smoothness’ of the in-camera animation of Ruttmann or Fischinger — trans. note).
In one sense, the history of ‘film as film’ began a few days before 2 April 1921 (the critic Bernhard Diebold’s date), with the first showing of Walter Ruttmann’s film Opus I to music by Max Butting. For the first time, the movement had a finished product rather than mere proposals and an imaginative vision of a new medium. But, apart from sporadic performances, the public had to wait until 3 May 1925, when a matinee presented the films of six artists working within the ‘absolute film’ tradition.

Four main areas of artistic activity developed prior and parallel to ‘absolute film’, and these had a marked influence on the film’s formal language and were also responsible for a certain amount of publicity (the stage works in particular):

1. Art and music — the ‘coloured light organs’ with non-objective light projections, which originated from the synaesthetic theory that directly linked a certain musical note to a certain colour, thereby suggesting an abstract, coloured, film-like image in the mind of anyone listening to the music.

2. Art and movement — that part of Futurism which moves through Cubism to Constructivism, from the first attempts to fix movement into a static picture to the series of variations of equivalent images in Constructivism. Parallel to this is the influence of the Chinese picture scrolls, to which not only Eggeling, Richter and Graeff, but also Duncan Grant relates. Also relevant are the picture stories of the nineteenth century, the illustrated books and the precursors of the comic book (Wilhelm Busch).

3. Art and light — projection effects and the first light sculptures also run parallel to ‘absolute film’. There is a direct connection in Moholy-Nagy’s work, for he used his first kinetic light sculpture with its light, shade and mirror effects as a basis for his only non-narrative film.

4. Art and stage — on the peep-show stage the image is concentrated into a projection plane on which elements of form, music and light are combined. It was for the stage that many artists developed non-objective, mechanical or light projection games which are very similar to ‘absolute film’ in their optical effects.

**Art and Music**

It was the art critic den Toops who, since Kandinsky’s first object-free images, had discussed ‘musical’ pictures and the parallels between abstract art and music. The previous 30 years of film development had shown no inclination towards a unique brand of creativity, so that Bernhard Diebold (later a leading champion of ‘absolute film’) could write in the Frankfurter Zeitung of 7 September 1920, in anticipation of events: ‘How is film going to overcome naturalism? How is it going to succeed in exploiting the full aesthetic resources of its technical marvels and turn them into a real and characteristic art form, which will no longer rely exclusively on photography for its effects but will use it only as a secondary aid? Which will essentially avoid both literature and impermissible copies of nature, and strive for nothing but a new and truly great “Painting in Motion”?’

Although we can trace no concrete development in ‘film as film’ before 1920, there is a rich history of music-colour-light association. But only passing reference can be made here to the heritage (today sadly forgotten) from Isaac Newton to Alexander Laszlo. Laszlo thoroughly outlined this chain of development in his book Coloured Light Music (Leipzig 1925).

Isaac Newton (1643-1727) compared the spectral colours he had produced by splitting up the sun’s light to the spectrum and the tempered octave of musical notes. Following Newton, the Jesuit Bernard Castel constructed his ‘clavecin oculaire’ (ocular harpsichord) around 1725, which consisted of two coloured discs (in 12 parts corresponding to the 12 semi-tones of the tempered octave) connected to a harpsichord. He conceived of the relationship of colours and notes as being very close, even parallel. He believed: ‘There is a base note, which we will call C; it renders a firm, tonic and basic colour which serves as a foundation for all colours, and that is blue.’

What seems to me to be important is Laszlo’s comment that, in spite of different approaches and nuances, most of the colour-music experimenters accepted the notion that the colours of the spectrum constitute a musical octave. Thus Johann Leonhard Hoffmann in his Essay on the history of harmonic painting in general and colour harmony in particular, with illustrations from music and including many practical notes, 1786. Unger. 1852. Goldschmidt, and the more recent researchers Rimington, Betrand-Jaillet, Hermann Schroder, Hans Bartolo Brand, Emil Petschnig.

In 1894, Alexander Wallace Rimington built a machine with 12 apertures for the projection of 12 colours, analogous to the 12 semi-tones of the musical octave. The apertures are opened by means of a key-board identical to that of a piano and allow various coloured cones of light onto the same projection surface. The different light cones swallow up the colours to a greater or lesser extent and from this process a compound colour appears on the projection surface. Still, even if a particular colour-note cor-
respondence could be agreed on (the Frenchmen H. Beau and Betrand-Taille on their colour-light piano with electric light bulbs linked the note C to the colour violet, while Hermann Schroder made it yellow!), the transposition of light-beam projections or the combination of illuminating light bulbs would still be optically problematic. For colour projections will blend into an indefinable grey, whilst connected light bulbs will not be perceived as a unified colour mood but as a variegated mixture.

Around 1900, many artists dedicated themselves to the problem of co-ordinating colour and musical notes. The painter Hans Bartolo Brand, in his work 'The chord — and fifth cycle in colour and music,' related C to blue-violet, while the Viennese composer Emil Petschigg connected C major and mirror with light grey, or grey-black.

Alexander Scriabin (1872-1915) was certainly the most important musician of his time to devote himself to the question of synaesthesia. His vision of a performance of 'Prometheus' with coloured light, in a high-domed, white hall could not be realized, for the technical accomplishments of the colour organ did not particularly interest him. On a colour-piano built in New York in 1915, cones of coloured light were projected onto the ceiling: but it was Scriabin himself (along with Wassily Kandinsky, who was working through similar problems as a painter) who noted the unsatisfactory optical effects. There were no harmonious compositions of images on the large scale, but only partially projected beams of light.

Alexander Laszlo, trained as a composer and a pianist, worked alone on the realisation of the differentiated projection machines he had sketched out in 1924. 'As coloured light music is a contemporary (abstract) branch of art, so we need an instrument to render its compositions. This we call the coloured light piano (Sonnehromatoscope). Basically, four large projectors are used and four small footlight machines, which are operated from a switchboard.' This makes possible 'coloured light musical compositions, in which they appear, on the one hand, the widest possible range of colour variations with an unobtrusive transition from one threshold into another (similar to breakfast or supper) and, on the other hand, images in geometrical or expressionistic planes, seen in both moving and static states.'

However, Laszlo the musician, was aware of his own lack of visual, artistic talents in spite of all the perfect projection equipment. So he bought up films by Oskar Fischinger and tried to persuade him to collaborate on his coloured light music. Max Butting, who had himself had corresponding experiences as composer on the first 'absolute' film Opus I by Walter Ruttmann, wrote a telling and basic criticism: 'I saw no progression in Laszlo's works. They are a marriage between romantic day-dreaming and romantic science. I find Hirschfeld's works at the Bauhaus much purer and more impressive, although or because they are of a more primitive conception' (Socialist Monthly 1926).

Butting here mentions the relevant point: artistic quality and the transposition of artistic ideas to suitable media. Even the later projection games of the '50s and '60s (e.g. colour particles between two discs in light or projection games with coloured light, all the way up to playing around with video synthesizers) are only occasionally taken as serious art (e.g. Piene's Light Ballet).
In contrast to the synaesthetic coloured light instruments, the reflecting coloured light play had a much more basic and simple point of departure: there was no attempt to make a connection with temporarily changing music, but it developed out of the need to intensify coloured surfaces to an actual, continuous movement which could only be simulated on the painted canvas.' Since Futurism, if not earlier, painting had been attempting to imitate movement. All three of the idealistic film-makers of the first period around 1920 (Ruttman, Eggleing and Richter) had been inspired by Futurism and Cubism.

Kurt Schwerdtfeger, a member of the sculpture workshop at the Bauhaus, was the first to develop the 'reflecting light play'. Two stills from his work are included in the first big Bauhaus book of 1923 (p.101/2). An exhibition programme of the time also notes the showing of Ludwig Hirschfeld-Mack's 'Two Reflecting Light Plays'. Both worked according to a similar principle, but since Schwerdtfeger discontinued his work, Hirschfeld-Mack's research remains of outstanding importance in this area. Multi-coloured lamps threw light, given shape by movable stencils, onto a screen, so that observers on the other side of the screen experienced apparent shifts of movement and colour, indeed even the illusion of different spatial concepts. Several Bauhaus artists played around with the stencils and lamps according to a so-called score and produced an impression which until that time only Ruttman's Opus I had been able to achieve, for none of the other abstract film experiments had yet been prepared or shown. So these performances of the 17 and 19 August 1923, during the Bauhaus week in Weimar, could be claimed to be the second and third exhibitions of a 'new art form'. Hirschfeld knew of neither the film experiments of the pioneer Ruttman nor those of Richter and Eggleing working in parallel in Berlin, but he detected the relationship to the optical effect. His aim was: 'Through an exact knowledge of the basic optical elements, we are striving towards an articulated, tightly connected colour action, which sets out from a definite formal theme' (1925 first published in the Baulaterne). Similar to the film scores of Werner Graeff at this time, these coloured light actions were indeed able to maintain a strong and systematic formal theme. Even if better technology and more money had been available for film-making, such a widely differentiated colour version could not have been produced. The only possibility of a 'colour film' had been indicated by Graeff in his Filmscore 1922, in which he painted the shapes onto the picture frames in colour, so that an almost uniform colouring was produced (i.e. the form and the colour corresponded to each other). For the viewer, the main difference between light play and film consisted in the 'personal touch' of each light play performance, that is, in the gentle shifting of forms and tonal rhythm etc. However, there was an equivalence in the intention of the artists, the linking of colour and music and its effect on the observer.

Art and Movement

I cannot go very deeply into the early history of Futurism, through Cubism to Constructivism. These movements were naturally important sources of inspiration, particularly with respect to Ruttman's works, which have the clear stamp of Futurism on them. I would prefer to stress the importance of the scroll pictures as an art form in their own right, not merely as the starting point for the making of a film. Eggleing, Graeff and Duncan Grant all referred to the Chinese models: 'What particularly interests us here is Eggleing's attempt to draw on long-rolls (as the Chinese had always called such things) not only landscapes, but also abstract forms.' (Werner Graeff at the opening of the 'Film als Film' exhibition in Essen in 1978) Duncan Grant wrote in 1974: 'That Chinese scroll painting suggested that movement played a great part in establishing the relationship of pictorial forms, in Chinese art mainly landscape forms, in my attempt more purely abstract' (The Tate Gallery, 1972-74, London 1975, p.160).

Scroll paintings, as well as light organ works and 'absolute film', assume an important theoretical innovation: the abolition of a hierarchy of image forms and the postulation of the equal value of different pictorial solutions. Josef Albers himself, from his early years at the Bauhaus through his 30 years of work leading to his 'Homage to the Square', stressed the equal value that must be given to several image-solutions to the same problem. According to his teaching, there was no single best solution, but good solutions were those works in which personal states and knowledge were 'correctly' applied. Josef Albers' pedagogical work certainly had no direct influence on the development of 'absolute film', but the theoretical premises of his work since 1922 should at least be mentioned here as an important parallel.

The first consistently abstract series of images were designed by Leopold Survage (actually Leopold Sturwage) in 1912/13 and by Duncan Grant in 1914. Survage painted a great series of water-colours (there were over a hundred) which, laid alongside each other, produced a sequence of forms. Painted in strong, darkly-glowing colours, several sequences show a journey through the universe, staggered depths in space, twisted, curved paths of light which meet, rebound off one another and separate again. Survage was never able to produce this sequence as a film: there were too many intermediary stages missing. However, these pictures represent both the beginning of a new art form — non-objective movement of form as a film progression in time — and individual works of art. Georg Schmidt, Director of the Basel Museum and contemporary of these artists, formulates this very strikingly: 'The scroll painting principle they developed in 1918 is by no means yet exhausted but, in contrast to the merely static image, is still full of marvellous possibilities... While film and its tempo compel us irresistibly forward and allow no time to pause or look back, the scroll painting gives us the freedom to control the tempo; we can stop at any time and consider smaller or larger sections simultaneously, we can even change the direction. And while the still image spills out all its trump cards over us in spatial simultaneity, the scroll painting unfolds before us step by step, at the same time both a temporal sequence and a spatial unity. The scroll painting is movement and rests in one.' Since that time, I have dreamed of scroll paintings as one of the most beautiful potentialities in creative art' (quoted from Werner Graeff's Essen speech, apparently from a letter to him).

Duncan Grant designed an 'abstract kinetic collage painting with sound' in 1914, but never showed the work
because he conceived of it as a preliminary stage of a film, which he was not able to produce until 1973. Like Graef’s scores (1922), Richter (from 1920), Eggeling (from 1919) or Kurt Kranz (from 1928), these works were not used directly as models for films because many intermediary stages are missing, but they provide the viewer with the mental image of the film, for he can complete the movement sequences for himself. For these reasons, films from scroll paintings (e.g. by Graef or Kranz) are not as aesthetically satisfying as the scroll paintings themselves, which are individual works of art of the first order.

**Art and Light**

Film not only implies the use of a more or less equally ranked sequence of images, but also the simultaneous and direct inclusion of light, architecture and machines. From 1900 to the 1920s, dynamic and technological innovations were of much greater fascination than the moon landings we can see live on T.V. from our armchairs these days. ‘We should not look at this picture with the eye of a romantic, but see in it the function of movement, the penetration and conquest of space. Light is the way; the material recedes. The machine is the servant of movement, no longer a functional creature of form for its own sake.’ This typical quotation illustrates the spirit of the age: the machine, light, dynamics, space, overcoming function, even though the quotation is actually only the caption to a night-time photograph of a locomotive.

Light fascinated artists as much as kinetics did. Naum Gabo not only created the first kinetic sculpture (‘The Rotating Rod’), but also suggested several light sculptures. His most famous project was the installation of a light sculpture in front of the Brandenburg Gate, which was published in the Bauhaus magazine of 1928. Moholy’s kinetic ‘light machine’ is one of the most important works with respect to the inclusion of light, projected and reflected, translucent and shadow-casting. This became the theme of his only structurally ‘absolute’ film: Light Play: black-white-grey (1930). The works of Nikolaus Braun can also be mentioned here as another parallel. Unfortunately none of his Constructivist wooden reliefs with variable illumination appears to have survived, so that one is limited to descriptions.

Pure light works and projections were chosen as stage backdrops. Wassily Kandinsky produced his stage works for ‘Pictures At An Exhibition’ in Dresden (1928) as light projections in colour. Professional stage directors like F. C. Pilartz (a giant coloured light system as a stage sculpture dominated Hamsun’s ‘Tamara’) and Gustav Singer (mobile stage structure with variable light elements, Civic Theatre Oberhausen, 1928) took over the innovations developed by independent art and blew them up to massive proportions. Albert Speer used light effects as an impressive demonstration of power for Nazi party celebrations, and up to the present day this field of light projection has lost none of its attraction. One only has to look at the work of the Zero-group or Nicholas Schoeffer.

**Art and Stage**

Film-like light projections, dynamic stage imagery, indeed even a Ruttmann film as a stage backdrop: all of these
things were discussed in 1925 with particular reference to the field of dance. One hesitates to use the word 'ballet', because 'expressive dance' and 'abstract sequence of movement' would better fit the experimental Dance of the Future, which is the title of Fritz Bohemes' excellent and informative book.

As the film industry was only interested in mass appeal, and all the hubbub about stars concealed all thoughts of the intrinsic potential of the medium, artists had to create the bases for this sort of film work for themselves, under severe economic difficulties and relying on their own technical discoveries. In this way, Ruttman (April 1921) and ultimately Eggeling (their first films were not produced until autumn 1924 at the earliest) were to make 'absolute films' for the German-speaking regions. These difficulties explain why those artists who wished to create moving coloured forms turned their attention to the stage. In the first place, there was working machinery available and certain financial openings; in the second place, there had been since the Baroque period a long tradition of using light effects, coloured forms and music as the natural ingredients of a stage play.

The optical effect on the observer is similar in both films and stage plays. In mechanical plays, coloured strips, shapes and gyroscopes move according to a definite rhythm. Prampolini, Loew, Baumeister, Lissitzky, Kiesler and Heckroth amongst others, all designed mechanical sculptures and relief walls. Multidimensional stage shapes and moving coloured strips which produced an abstract sequence of forms were made by Weininger, Kurt Schmidt and Buchholz. The De Stijl artist Vilmos Huszar published an article in the August edition of De Stijl (1921) under the heading: 'A short technical explanation of the 'Drama of Forms' composition. 1920/21. Such drama should be performed electro-mechanically or colour-cinematographically or, primitively, as a puppet-show'. However Huszar apparently did not get beyond a general conception and a draft sketch, and even the technical production remains questionable. In contrast, Willi Baumeister's 'Mecano' ideas are concrete, thoroughly thought-out and realizable as a stage production. He expressly emphasizes in his article the comparison to film and the greater potentials of the three-dimensional stage. Heinz Loew built a model of his 'Mechanical Stage' and published this with an accompanying article in the stage edition of the Bauhaus magazine (No. 3, 1927). All possibilities of movement and configuration should be used, including the depth illusion of rotating spirals and eccentric discs (as for example also in Duchamp's Anémic Cinémé and in his rotor reliefs). The separate parts had to be removable, so that the given technical structure could be replaced with new formal elements, in order to be able to present other 'plays'.

Andreas Weininger, who like Graeff belonged to the school of Bauhaus students who were strongly Constructivist and much influenced by Theo van Doesburg, also designed a 'Mechanical Stage', although only in coloured crayon and water colour studies. He conceived the changing images as horizontally or vertically running coloured stripes, which could be either painted or transparent and which, by means of rotation, could produce an infinity of new colour combinations. His works are easy to reconstruct and also to document as film, for they require little stacking of equipment on the stage but are conceived visually as leading outwards from one point, i.e. they are not conceived so much as stage sculptural works as pictures and surfaces.

Kurt Schmidt (along with Theodor Bogler and Georg Feltischer) also designed two-dimensional figure constructions for his 'Mechanical Ballet', which was originally presented at the Civic Theatre, Jena, during the Bauhaus week of August, 1923 to the music of H. H. Stuckschmidt. 'The dynamic forces which are locked into the forms of abstract pictures should here be liberated from the picture composition and shown in movement'. Kurt Schmidt's drawings in the 1925 Bauhaus book are consciously influenced by the publicity given to film clips. His stage shapes were moved by unseen blacked-out people, so that an abstract, apparently mechanical sequence of shapes was produced. There was a lack of money, naturally, to translate this into actual mechanics like the contemporary 'reflecting light play', which also had to be performed by hand. At the end of this 'Mechanical Ballet', which was performed on several occasions, a large red and a small blue square dance on a black background, both stand up on their corners, and disappear as in Werner Graeff's scroll pictures or Hans Richter's films (the smallest form was carried by the five-year-old son of the Bauhaus's canteen lady).

In this connection, one further important area should be indicated: stage space concepts, which distinguish the new notions of space, that had been included in painting since 1915 with Malevich's 'Black Square' and in architecture since 1911 with Corbusier's 'Domino Houses' and Gropius' Fagus work. This entitled the opening up of all sides, the inclusion of all walls for effects and projection surfaces, eg. Andreas Weininger's Global Theatre (1926), Gropius' Total Theatre (1927), the space analyses of Joost Schmidt's Mechanical Stage (published in full in H. W. Eingler's Bauhaus book) and Herbert Mayer's exhibition structures, Moholy-Nagy's 'Outline Score for a Mechanical Eccentric' and Forke Molnar's 'U Theatre', both mentioned in Bauhaus book No. 4 on the Bauhaus stage, published by Oskar Schlemmer.

Common to all these works is the new artistic attitude of the 1920s to extend the boundaries of painting, sculpture and architecture and to realize ideas in drawings and constructions even if they seemed quite utopian. 'Absolute film' as a completed work on celluloid is only a part of this broad field of creative activity, which placed a central emphasis on object-free, coloured sequences of shapes. In this way, painting (scroll painting) sculpture (kinetic light sculpture), music (coloured light effects), the stage (mechanical ballets), and architecture (analyses of cubic space) all inter-relate to the history of film, because these very artists put into practice optical visions and tangential thought.

Translated by Paddy Bostock
Mecano

Mecano is a composition with time. It has no practical purpose as a machine. Its actual purpose is as an artistic development of energy in our time. The materials must be in harmony with the movements, which must be in harmony with themselves. Climaxes, fortissimi in the movements etc, pauses, noises, tonal series, total and symbolic illumination (light sources) are composed in a sequence which produces tension. To be distinguished are: e.g. cyclic movements, parallel movements, contrasting, eccentric and combined movements. In one sort of movement the mechanism is concealed; in another, a working machine itself produces the desired effect. Starting with colour relief, a mecano was produced with a rearward conclusion, a canvas running across two vertical rollers, in front of which moving bodies and surfaces performed distinct actions. In a certain sense a further development is a mecano starting from circular plastics with multilateral movements. The modern 'play' would be a mecano of greater size and duration, real, plastic, dynamic, in contrast to abstract film. Experimental models of the most simple kind with changeable moving parts and easily regulated time measures are necessary, as two-dimensional sketches can be deceptive.

Willi Baumeister, 1921.

The Dance of the Future

In this direction the conventional forms of carnival entertainment also belong: the throwing of streamers, scattering of confetti. More recently such basic materials as fire and water have been abandoned (though fireworks are, as ever, the most popular 'Raumbewegungsspiel') in preference for colour and light. In connection with theatre and music many ideas have been created; ideas which are most relevant to this discussion. To begin with, there has been an eagerness to adapt the stage background to the rhythmic character performed in pantomime and ballet, in architectural and linear successions of movement. In this field Bakst has been an example for the Russian Ballet. One step further would lead to the versatility of a rhythmic-linear backdrop adapted for dance; perhaps as a filmic curtain-raiser to a dance, or as an epilogue. The accompaniment of a rhythmic-linear backdrop performance to a dance would most certainly signify an intervention in the performance, because of the two-dimensional quality of the drawing or painting and the three-dimensional quality of the dance. Very few experiments in this specific direction have been made. Years ago I encouraged the painter Ruttmann to work on such ideas. In those days I conceived of filmic backdrop performances and prologues for the dancing of Mary Wigman, resulting in a joint collaboration of dance and film. But my ideas never really got off the ground. And the films of Ruttmann which should have been introduced as an entr'acte at Laban's dance studio in Hamburg never came about. At the new dance stage at the theatre in Münster, run by Kurt Jooss, the painter Heckroth has tried out experiments in the direction of a unified backdrop to the rhythms of the versatility of dance, with a tendency towards non-cinematic material. What I saw of these productions at a performance by visiting actors of the Neue Tanz Bühne at the Schauburg in Hannover, was extremely interesting, and I look forward to developments in this direction. But it is rather doubtful whether a direct and simultaneous combination of body-dance and instrumental-dance will ever achieve consistent results (if only in the form of stage backdrop created for instrumental dancing).

For coherence of both components the instrumental dance would have to develop towards plastic forms, or be created in such a way as was seen at the performance of the 'Nachlichter' by Wellesz-Terpis at the Berlin State Opera House. There we saw a transformation of one picture to the next in what seemed like an almost plastic light concert, rolling back and forth and developing definite colour formations. What was once begun in this field should continue to be improved upon. One had the impression here that the beginning of a united mechanical instrumental dance of light and plastic forms had come about. From this very strong impression one felt that these mechanical instrumental positions followed the merging of the machine with music, and that a complete work of art can only take place as a unity of homogeneous ideas, perhaps on the whole only through the objective formation of intensified mechanical arts. With problems similar to those mentioned here, yet related only to drama and not to dance, it seems that Mitschke-Collande in Dresden is also striving towards a 'dynamic stage'.

Fritz Böhme, from The Dance Of The Future, Munich, 1926, pp. 41-42
Wassily Kandinsky: ‘Pictures At An Exhibition’, Dessau 1928

Wassily Kandinsky, one of the co-founders of non-objective painting, was fascinated by the possibility in the theatre of a synthesis of the different art forms into a composite work of art. His ideas on abstract theatre, published in 1912 in an essay entitled ‘On Stage Compositions’ in the journal The Blue Rider, related to the particularly strenuous efforts at a complete re-appraisal of theatre made in the years immediately after the turn of the century. He applied these same basic principles to a piece he composed at the same time, ‘Yellow sound’ which, like his later stage compositions ‘Green Sound’, ‘Black and White’, and ‘Violet’, has never been produced. Kandinsky’s artistic sensitivity and his attitude to the theatre are intimately bound up with his own peculiar, synaesthetic ability to experience certain colour tones in relation to musical notes. His only practical work for the theatre was his staging of Mussorgsky’s composition, Pictures at an Exhibition, which Bauhaus master Kandinsky produced in Dessau in 1928. In this work he transformed his impressions of colour and form on listening to the music into stage imagery in which the basic patterns of colour and form of his painting can be recognised. As ‘moving images’ they are closely related to abstract film, once we have perceived the three-dimensionality which is achieved by using the full depth of the stage. The guiding principle in the staging, according to an important book on stage production by Paul Klee’s son, Felix Klee, is the development of the images in time, that is a gradual composition and decomposition of the colour forms corresponding to the musical development.

Kandinsky gives the following description of his work in a contribution to Art News:

‘The work consists of sixteen images which reflect Mussorgsky’s impressions of an exhibit of pictures. The painting were evidently naturalistic (probably all watercolours). However the music is in no way “programme music”. When it reflects something, it is not the little painted pictures, but Mussorgsky’s experiences, which rose far above the “content” of the paintings and found a purely musical form. This was the reason for my readily accepting the invitation by the then director of the Friedrich Theatre in Dessau, Dr. Hartmann, to produce the musical composition for the stage. With the exception of two pictures Samuel Goldenberg and Schmuyle and The Market Place at Limoges (in which I included two dancers), the whole stage image was “abstract”. Here and there I also used shapes which were remotely “objective”. So I did not proceed “programmatically” but used shapes that came to mind while listening to the music.

The main materials were:
1. The shapes themselves,
2. the colours on the shapes to which were added:
3. the colours of lights as painting in depth,
4. the independent effect of coloured light and
5. the composition of each image as it related to the music and, necessarily, its decomposition.

An example: picture 4 — The Old Castle. The stage is bare but in total darkness (the black plush curtain hung in the background forms an “immaterial” depth). At the first espressivo, three long vertical strips only become visible in the background. They disappear. At the later espressivo, the huge, red back-cloth comes in from the right (double colour).

Then the green back-cloth in the same way from the left. The central figure appears from the darkness. It is illuminated with intense colour. At poco largamente the light fades more and more, until at piano there is darkness. At the final espressivo — as at the beginning — the three stripes become visible. At the final forte, sudden blackout.

The individual images of the piece are made up mostly of flat shapes and figures — only in particular cases of three-dimensional objects — and these are either suspended, pushed in from the side or carried across the stage by stage hands who remain concealed behind them. The shapes are partly opaque, partly transparent or sometimes have cut-out sections for the direct incidence of light. Their actions are co-ordinated, in precisely calculated synchronization with the music, with the movements of coloured, graduated light which is woven into the abstract stage event through spot-lights, lamps and, in one case, through a kaleidoscope projected onto the back wall.

Ludwig Grote, a committed land conservationist, friend and promoter of the Bauhaus, describes the “theoretical basis” of Kandinsky’s stage work in the Dutch magazine i 10:

‘With the abstraction of painting, its renunciation of representation and the return to its most characteristic materials, painting for Kandinsky reached the level of music, of the purest, the most absolute art and therefore acquired the capacity of expressing notes through colour. By its very fixing on to a surface, the image is necessarily evanescent; only the stage gives the possibility of introducing the essential element of music: movement — for shapes and colours — and of representing a musical event in terms of painting. This is the theoretical basis of Kandinsky’s stage composition. Kandinsky has penetrated deeper into the new territory than Lazlo and Hirschfeld Mack have been able to. Their previous work gave no indication of such a wealth of expression. The shapes appeared only as surfaces, the stage area with the black background and the lighting came across as quite unreal, like space in Kandinsky’s paintings. Alongside the movement of the shapes, the lighting appears as a time moment and gives a wide-ranging and rich scale of tone intensity.’

Georg Hartmann, the director of the Friedrich Theatre in Dessau, writing in Cross-section, gives a description of the second image Gnomus, from which the close relationship between optical and acoustic events becomes particularly clear:

‘When the first 10 powerful bars in G-flat major strike up, there appears on the right-hand side of the stage, arranged according to the severity and clarity of contrast on the stage, a white surface starkly bisected by black stripes. The repetition of the theme in the next seven bars brings with it, after the disappearance of the first image, another white surface as motif, but this time broken up by vertical rather than horizontal black stripes. This too vanishes, only to re-appear in the middle of the stage with the following bars. Then, by means of a small black figure closely resembling an exclamation mark, which becomes visible at the violently stressed sforzando chords (from bar 19), it turns and points, with equal force as it were, to the images now taking shape on the white surface. At the
poco meno mosso pesante, which brings with it the sensation of agonizing constriction, the black grating on the left half of the central white surface sinks away, while the tortured quality of the theme is still stressed by the pointed, russet, jagged figures which appear in the bottom right-hand corner. At the 60th bar there appears from above a circle in calming green as a motif of reconciliation corresponding to the music; the image is dimmed, only to be lit up again at bar 72, this time including the two previously concealed side parts and, as it were, embracing the whole emotional experience. It disappears at the conclusion of the piece of music. The production was only staged twice, on the 4th and 11th April 1928, at the Friedrich Theatre in Dessau.

2. Ludwig Grote. 'Kandinsky's Stage Compositions' in 10 International Review. Vol No 13, Amsterdam 1928 p. 41
3. Georg Hartmann: One of Kandinsky's Stage Compositions. 'Querschnitt' Vol VIII No 8, Berlin Sept 1928 p. 666 f

Light Cabinet

The work is to be seen as the continuation and, at the moment, as the conclusion (in this field) of an almost fifty year-long process. I succeeded in producing the first form of the work with a staging of the fairy tale 'Schwanenweiss' (swan white; white as a swan) by Strindberg at what was formerly the Albert Theatre in Dresden in 1920. Quite new! (To me, at that time, Beckett with his Godot would have been following in my footsteps). In that production I used only light and three curtains (2 blue, 1 red) which I thought could be moved about according to the set by schoolgirls from Hellerau (Dalcroze).

In it as I have said, according to the requirements of the particular stage set the curtains opened, came together and, as required illuminated or covered the connecting horizontal. By constructing a light bridge over the stage and by suspending the sources of light, I was able to black out the actors completely, so that at times only the voice — the word — was audible in empty space. The light, its meaning, its existence, its infinite potential was at that time for me a show in itself, the most all-embracing, structurally the most plausible and, in terms of individuality, the most scenic. In addition, in the game there were game objects: hanging, lying, varying the light in spirals, a game with a 'kinetic' objective.

A red disk hanging in space, variations on geometrical shapes possible, formed arbitrarily. Surplus energy is the driving force: the warmth of the light source (lamp) a problem for lamp production. (The desired lighting only partly produced by electric current). Warmth therefore rises from the depths of space, is conducted by walls, and becomes the motive power for the kinetic object. Rising, it sweeps past the suspended surface and plays with it from the time it passes, (vertically to the observer), in coordinated ellipses and cycles in the turning movement. Reflections, complete and refracted in the background perspective, or the cylinders, the multiple sections of the outer areas and upper zones of space. Possible as a model.

Controllable on the left and at the black plate; the actual disk itself reflecting, in the wide angle to the left, the eye simultaneously perceives the disk reflected in rotation, even comes to a moment of nothingness (blacked out) in which with a more vigorous turning process, a complementary green appears, pushed, pulled, played under and over the swinging circle, forms itself into a ball. You can intensify the process at will by blowing lightly on the left-hand plate the game of the green modifies in terms of image and space in mild sfumato.

Erich Buchholz (1964-67)
Translated by Paddy Bostock
Viking Eggeling: Diagonal Symphony 1924
The earliest period of film history saw a rapid movement from technical novelty to popular entertainment and, in its first 20 years, the foundations of an industry which continues to dominate the mainstream history of film. The technological inventiveness of the 19th century which gave rise to photography and cinema also saw the emergence of radical changes in the classical principles of all forms of art. However, in the first two decades of this century, a number of visual artists began to see a potential for cinema which was not being realized by the film entertainment industry.

Given the difficult technology of film, the scarcity of equipment, and its high costs it is not surprising that few independent experiments were realized by artists who visualized this potential. Those works which were produced before 1925 are few and far between and even fewer of them survive in any reliable form from that period. Consequently any history of the development of the ideas must be made on the basis of very scant evidence. Though the developments in painting are well known, well documented and have been subject to much historical discussion, it is still necessary to put those few early film experiments in the context of the other art of the period. It is generally and in my view rightly recognized that the most significant and influential development in painting after the impressionist period came in the work of Paul Cézanne. In his work can be seen the basis for the dissolution of pictorial representation leading on the one hand to Futurist painting and on the other to Cubism, both of which in their turn are the primary precursors of an increasingly non-representational concept of abstraction.

It is possible to identify in the developing concept of pictorial form a dynamic aspect threatening the basic limits of the static, timeless picture. Time and flux enters art in two distinct ways characterized in a distinction between Futurism and Cubism. In Cubism, following directly on the late Cézanne, the dynamic principle is that of the flux in experience deriving from the changing stance and spatial perception of the painter. Cézanne's work and Cubism led to an awareness that the act of representation takes place in time and changes both with the time and in relationship to the previously recorded moments of perception within the painting itself. Instead of suppressing this flux in favour of a conventionally unified perspective, a language is developed to allow the flux itself to remain recorded or expressed in the resultant picture — a perceptual dynamic. Except in some aspects of Viking Eggeling's film Diagonal Symphony, the dynamics of perception in the act of representation only has its parallel in film at a much later period, in those films which explore various strategies and systems for the camera (as in some works by Kurt Kren, Michael Snow or William Raban).

On the other hand in Futurism, similar formal devices the representation, instead of focussing on the changing state of the perception of the painter, utilize these devices to represent movement in the subject whilst basically maintaining the status of the observer: a kinetic dynamic. The two dynamics have much in common but their relative polarity continues into the development of more thoroughly non-representational art through work which on one hand maintains a kinetic potential and on the other a more architectural abstraction; Kandinsky on one side, for example, and Mondrian on the other. It is curious that, whilst the dynamic tendency in painting (related to the impetus which gave rise to the cinematic technology: a fascination with recording experience of motion of time) was accompanied by a vehement rejection of the literary, no corresponding rejection took place in the cinema of the period. When artists involved in the new concepts of the visual arts began to take an interest in cinema, it was already necessary for them to react against the mainstream dominance of theatre and literature within the medium.

Whilst the earliest realized works of film as a self-consciously plastic art were almost certainly those of the Corra brothers, Bruno Corra and Arnaldo Ginna (works which survive only in the form of written documentation), the first group of works which can in any way be understood to represent a consistent direction were those abstract films produced in Germany in the early twenties. Even though it tempting, with so little material produced in this field, to seize on this as a movement, this is a little inaccurate. Although the artists concerned were aware of each other and collaborated to some extent, their products display some significant differences in attitude. Dispute continues on the question of primacy, which does not concern the ideas which can be discerned from the work. Four artists should be included in this grouping: Walter Ruttmann, Viking Eggeling, Hans Richter and Oskar Fischinger (it is possible that further research on Werner Graeff and Kurt Kranz will show that they should also be considered). Of the four, only Fischinger had not already worked as a painter before he made films, though he was a draughtsman and in his later years turned increasingly to painting. Ruttmann, Eggeling and Richter were already involved deeply in abstract art when they came to consider film. Certainly in the cases of Richter
and Eggeling, at the time engaged in a close artistic collaboration, their movement to film was the result of a logical progression from the concerns which they had been developing in painting.

In tracing the major basis for dynamism in painting and its continuation into abstract art, I have stressed Cubism and Futurism. However, there is an influence from the forms of Cubism on German Expressionism seen in Marc and Macke for example. In this 'cubistic expressionism' and its later, more thorough abstraction, whilst there is no direct attempt to portray objects in motion as there is in Boccioni for example it makes use of similar devices like rhythmic repetition of lines or shapes so that they are read as movements. In this respect it is closer to the kinetic dynamic of Futurism than to Cubism. Kandinsky in particular can be used to demonstrate the development of this kinetic potential to a non-figurative form and his paintings provide the best point of reference for the visual forms which appear predominantly in Ruttman's abstract films. Similarly Kandinsky is of major importance for the development of Fischinger's aesthetic not just at the level of the pictorial concepts, but also at the level of the theory for the mode of expression in abstraction.

Ruttman made four complete abstract films in a series he called Lichtspiel numbering them Opus I to IV, though only II to IV have been available for study. If not in entirely reliable form, they are convincingly complete enough and consistent enough to recognize some clear development within the series. From the three films it is possible to see an aesthetic development which can be considered a microcosm paralleling development of abstract art in general. Opus II is dominated by forms and movements which relate to those of the dramatic landscapes of Kandinsky's interim period between figuration and abstraction. These forms are clearly anthropomorphic and organic and their action represents an allegorical conflict between sharp, wedge-like forms which probe aggressively and rounder forms which are the subject of the rhythmic probing. This anthropomorphism recurs in the whole series to some extent and is also in evidence throughout all of Fischinger's films. However, in the Lichtspiel series, the third Opus sees the emergence of a more geometric form of abstraction and a more mathematical or mechanical rhythm in the movement. The concentration on more rectilinear forms and simple diagonals suggests an attempt to relate more directly to the predominant geometry of the screen and the mechanical analogies of the film medium. The fourth Opus takes this geometric tendency further and evolves from it some sections which, rather than establishing geometric shape, divide the screen so boldly or transform it so rapidly that it is the optical effect which predominates. The effect becomes divorced from the shapes or forms which cause it. The enterprise of abstract art has tended to follow these developmental stages in its progressive reduction of representational imagery culminating in the physical and optical experience of the object following a period in which 'neutral' geometric forms had replaced the organic and anthropomorphic.

Fischinger, who was much younger than the others, only produced fragmentary works in this period, but having continued as a film-maker into the fifties is dealt with at length in a separate essay. His commitment to abstract
cinema provides an extensive and complex basis for study, but his work has most in common with that of Ruttmann. Both afford an interesting consideration of the relationship of musical concepts to the time structure of abstract film. In the same way in which painterly concepts informed the visual imagery of this period, the notion of film as a form of visual music held a considerable currency in considering the problem of film's temporal composition. This concept can be traced back to the development of the light organ, played a significant part in the early film experiments of the Corra brothers and continues to have a place in the formal concepts of the experimental film. For Ruttmann and Fischinger, some of the articulation of this notion came directly from the critic Bernhard Diebold in his Frankfurter Zeitung articles outlining and supporting the new concept of abstract film. Ruttmann collaborated directly with composer Max Butting on special music to be played in the presentation of his Lichtspiel series and Fischinger in many works designed the visual development around a music track. The formal concepts of music are thus evident in the rhythm of movement and the reprises of the action in both artists' work.

Viking Eggeling and Hans Richter, whilst coming from a similar set of visual influences, through the predominance of the mature Eggeling, tended towards the more architectural direction of Cézanne and Cubism and were more influenced by a concept of the logic of musical form rather than the particular phasing of composition. Neither at this period attempted to make a work which integrated image and music. Certainly, at the conceptual level, Eggeling provides a more rewarding basis for study, though Richter in his films up to and including Film Studie of 1926 continues to present, in a primitive and haphazard way, many stimulating insights into the potentialities of the medium. Under Eggeling's influence (acknowledged by Richter) their initial movement into film came as a result of a theoretical endeavour to define a logic for the forms of abstract art, a non-representational graphic language which Eggeling called 'Generalbass der Malerei', similar to Kandinsky's theoretical project contained in Concerning the Spiritual in Art. Whatever its overall validity, Eggeling's theory in effect led to works which explored a form of graphic transformational logic. Increasingly he developed them as linear scrolls, and, in retrospect, its logic has much in common with the mathematical concepts of topology. (Forms with simple, definable linear characteristics combining in additive and subtractive structures with basic mirror and rotational transformations.) There remains the possibility that the film Horizontal Vertical Orchestra was completed by Eggeling in 1921, but the surviving film, Diagonal Symphony, completed in 1924, adequately represents his cinematic concepts.

Richter, like Fischinger, continued to make films until recently. His period as an abstract film-maker ended after Film Studie, and following his own filmography, consisted of three films with the titles Rythmus 21, 23 and 25 and Film Studie which combines abstract and representational material. Versions (of disputed authenticity) of Rythmus 21 and 23 are in circulation. They are both a 'mixed bag' of animation experiments which seem to derive their images from spontaneous manipulations under the ani-
mation camera edited together later without a pre-
considered composition for the whole work. Despite Richt-
er's rejection of Ruttmann's films as 'impressionism', the
best aspects of Richter's abstract work shared some of the
optical and rhythmic dynamic of the last Opus film with
bold and sweeping divisions of the screen surface. Even if
the initial work by Richter was spontaneous, in later years
he adequately expressed this separation of the rhythm
from its 'carrier', writing of Rhythm 2: 'I mean that by
taking the whole movie screen, pressing it together and
opening it up, top, bottom, sides, right, left, you don't per-
ceive form any more, you perceive movement.' Richter's
most interesting film for me is Film Studie which combines
the strongest of his abstract animation with live action
images often presented in negative, a device which abstracts
the visual effect of movement and shape, integrating
it with the abstract material.

This move to live action cinematography by Richter
may have been motivated by a sense that the abstract
concept which had been applied in film was somehow
'uncinematic', a transposition of painterly concerns to
film. Whether he felt this or not, the most productive
developments in the experimental film to follow this early
abstract work, the films of Man Ray, Fernand Léger and
Henri Chomette, working in France, all related directly to
film as a photographic medium. This basis of film in an
apparatus designed for photo recording in time is only
incidental to the non-representational (painterly) abstrac-
tion of the German group — any other method of
getting the image onto the celluloid or screen would do
just as well if not better. The key French experimental
films of this period, Man Ray's Retour à la Raison and
Emak Bakia, Léger's Ballet Mécanique and Chomette's
Cinque Minutes de Cinéma Pur all sought an equivalent to
abstraction somehow compatible with the inevitable rep-
resentation within the process of cine-photography.

A similar impetus can be seen in another artist working
in Germany at the time of Ruttmann and co., Hungarian
Laszlo Moholy-Nagy, closely involved in the Bauhaus.
Though Moholy-Nagy did not produce any films until
later, mainly in a documentary form, the ideas and direc-
tions for cinema he envisaged in his writing and the ex-
periments he made in photography became an increasingly
substantial point of reference for the development of an
art of cinema. Like Man Ray, one of his major con-
tributions came from his experiments with photography,
and like Man Ray, he discovered (or rediscovered a
pioneer photographic technique of Fox-Talbott) a system
of camera-less photography, the photogram, or rayogram,
where the image is produced by direct contact of an object
on a photo-plate, recording the trace of its shadow. Whilst
Man Ray transposed this technique to cinema, making
direct cine-raygrams in his first two films, for Moholy-
Nagy, it remained a photographic device. However,
Moholy clearly related the practice of photography and
film closely, publishing through the Bauhaus in 1925, the
book Painting, Photography, Film. In his photographic
work, we do not just see an equivalent to Man Ray's
rayogram technique but many more parallels to the
experimental directions which were being initiated at the
time. In particular his photocollages, combining photo-
graphic images with abstract elements and abstract rather
than representational placement echo a similar con-
junction in Léger's Ballet Mécanique, as do explana-
tions of extreme close-up photography. Not the least of his
achievements were proposals for a 'Poly kino', a precursor of
'Expanded Cinema', and proposals for a form of cine-
mountage, via a graphic script 'Dynamic of a Great City'
pre-figuring Dziga Vertov's Man With a Movie Camera.

In general Moholy-Nagy should be considered in con-
junction with the French rather than the German film
experiments, in seeking an autonomous base for film-art
not simply replacing the literary and theatrical dominance
of its forms by those imported from painting or music.
The internal complexity of avant-garde film activity in France between 1919 and 1929 has been relatively neglected in recent critical and historical work, despite its crucial importance to any understanding of the tradition of ‘film as film’. For this decade saw the earliest attempts to establish an independent production and exhibition sector, distinct from the mainstream of commercial cinema, and also the first rounds in a continuing debate on the role of the avant-garde in cinema. The central issue at stake was the apparent contradiction between cinema as industry and as putative art form — what kind of art was the film to be? To the post-World War I generation of cinéastes, their enthusiasm fired by the growing sophistication of Hollywood and the advent, in rapid succession, of Swedish naturalism and German ‘expressionism’, the choice lay between trying to satisfy aesthetic ambitions within the commercial cinema, or creating an avant-garde enclave. Other factors soon intervened as the economic configuration of the cinema changed during the 20s, with sound technology introduced to consolidate the mass-appeal spectacle and the rise of Fascism producing a political imperative in the work of responsible artists. By the time the first International Congress of Independent Cinematography, meeting at La Sarraz in 1929, declared ‘as an absolute principle, the difference in practice and spirit between the independent cinema and the commercial cinema’, the separation had already begun. And as the emergent European independent cinema moved further away from commercial cinema in the sound era, this proved to be more a symptom of its marginalisation than a willed independence. Independent film-makers in France, as elsewhere, were increasingly faced with a stark choice between incorporation (often negotiated through ‘sponsorship’), or a drastic reduction in their scale of operations, as the economic and aesthetic foundations of the ‘first’ avant-garde crumbled.

This ‘first’ avant-garde — also confusingly known as the ‘Impressionist’ movement — was in fact one of three distinguishable responses to the question of how the potential of film as art should be realised. It also established the infrastructure upon which all subsequent avant-garde film activity in France was to depend. The origins of the movement can be traced to 1917, when a number of young intellectuals, already uprooted by the war, began to turn away from the traditional arts towards the cinema.

Louis Delluc had been a drama critic and Marcel L’Herbier hesitated between literature and music before taking up the cinema as a career. Both were greatly impressed by De Mille’s *The Cheat*, shown in France as *Fortune* in 1917, and later dated their ‘conversion’ to cinema from this experience. Delluc became editor of *Le Film*, which included among its contributors Colette, Cocteau and Aragon, and began to publish writings by Dulac and L’Herbier. Germaine Dulac had come into the cinema from feminist journalism in 1914, and in 1919 she directed one of Delluc’s first screenplays, *La Fête Espagnole*. L’Herbier had begun to write and direct for Gaumont in 1918; but, with his own production company from 1922, he was able to attract leading artists from outside the cinema to collaborate on his increasingly ambitious projects — *L’Inhumaine* (1924) had sets designed by Léger, Mallet-Stevens, Autant-Lara and Cavalcanti, with a specially-composed score by Milhaud; while ‘Feu Mathias Pascal’ (1925) was based on a novel by Pirandello. The other central figure among the Impressionists was Jean Epstein, who had studied medicine before becoming secretary to Auguste Lumière. In 1920 he met the cubist poet Blaise Cendrars, then working with Gance on *La Roue*, and decided to devote himself to the cinema. He became assistant to Delluc on *Le Tonnerre* and published his first collection of writings on film aesthetics, *Bonjour Cinéma*, in 1921.

Delluc’s zeal for a distinctively French cinema, which would equal the artistic achievements of Sweden and Germany, led to his establishing the foundations of the avant-garde. He started more film magazines, produced a series of books, organised conferences and special screenings of important foreign films (such as *The Cabinet of Dr Caligari*), as well as writing and directing four features before his early death in 1924. He also realised the need for closer contact between film-makers and audiences, which led to the idea of the ciné club as a forum for specially programmed screenings and discussions. The first such group, the Club des Amis du Septième Art (CASA), was started by the Italian-born art critic Ricciotto Canudo in 1920. Canudo had been a supporter of the cubists and of the Italian futurists; he knew Apollinaire, Cendrars and Léger, and was able to attract a remarkable circle of artists and intellectuals to CASA. After Canudo’s untimely death in 1923, his and Delluc’s clubs merged to form the first of a network of ciné clubs throughout France. These began to show avant-garde and foreign films, with lectures, discussions and retrospective programmes. Two specialised cinemas opened in Paris in 1924, the Vieux Colombier and the Studio des Ursulines, both committed to the avant-garde and even prepared to commission films. By the mid-twenties, the Impressionist avant-garde had achieved a degree of stability and inde-
pendence. Avant-garde producers could count on publicity and sympathetic discussion of their work in the serious film magazines, and distribution and exhibition through the specialised cinemas and ciné clubs.

But its aesthetic programme also contained the seeds of the movement's collapse. L'Hermier explained in an interview what united the disparate film-makers:

None of us — Dulac, Epstein, Delluc or myself — had the same aesthetic outlook. But we had a common interest, which was the investigation of that famous 'cinematic specificity'. On this we agreed completely. Another thing we had in common was the practice of writing a great deal in the papers about our views on the cinema.2

In their reaction against the conventional theatricality and literary bias of French commercial cinema, the avant-garde argued that cinema must confine itself to those elements which are 'specifically cinematic'. Now this notion can be understood in several different ways. It can refer to the rather obvious fact that cinema has its own 'material of expression', namely 'animated photography and linear order'. But as Christian Metz has observed, 'from the idea of a material homogeneity one slips in many cases into the . . . assertion that there ought obviously to exist (at least in principle) a single system — a single code.' There is, in fact, a potential confusion here between the material and the signifying aspects of film; and from this confusion comes the attempt to legislate for what is properly cinematic — to derive a normative aesthetic from a descriptive account of the specific materials of cinema.

The issues at stake in 'cinematic specificity' were never as clear-cut for the film-maker-theorists of the first avant-garde, who were fighting simultaneously on several fronts and tended to argue polemically rather than analytically. But it is apparent that some shifted from a broad programme of minimising or eliminating elements non-specific to cinema — such as the verbal language of intertitles, dramatic narrative, theatrical space — towards an interest in the supposedly unique visual and kinetic aspects of cinema. Partly this may have been due to the tradition of essentialist aesthetics they inherited: if film was to be an art among the other arts, it must have its own unique and specific material and field of meaning. It may also betray the influence of Symbolism on several members of the avant-garde, in their drive towards the idealisation of the cinema as a transcendent art, mutely revealing 'the mystery of things'. At any rate, Delluc introduced the concept of 'photogénie', first used by Daguerre in connection with still photography, and proclaimed it 'the law of cinema'.

Epstein later confirmed the status of the concept for the Impressionists:

With the notion of photogénie was born the idea of cinema art. For how better to define the indefinable photogénie than by saying that it is to cinema as colour is to painting and volume to sculpture, the specific element of art.1

Elsewhere he suggested, 'if you require a more concrete translation, an aspect is photogenic if it changes positions and varies simultaneously in space and time'.4 This is perhaps the closest any definition comes to explaining photogénie in terms of the specific codes of movement in the image/of the image, to use Metz's terminology. But if photogénie tended to become a mystical concept in the writings of some Impressionists, it was widely discussed outside France and played an important part in the development of film theory. Thus Boris Eikhenbaum, a member of the Soviet Formalist group, lucidly integrated it into his formalist account of film as art:

Photogénie is the unconscious, 'trans-sense' essence of film, analogous in this respect, to musical, verbal, pictorial, motor and other types of trans-sensality. We observe it on the screen — in faces, in objects, in scenery — apart from any connection with the plot. We see things anew and perceive them as unfamiliar . . . What is important, of course, is not the structure of the object, but rather its presentation on the screen. Any object can be photogenic — it is a question of method and style.10

Despite their evident idealism, it must be emphasised that there is much of real interest in the Impressionists' writings and films. Delluc was one of the first to stress the value of natural locations and non-theatrical acting; Epstein explored the phenomenology of the moving image and developed an intriguing analysis of the significance of close-ups; Dulac provided a shrewd history of the French avant-garde as early as 1932; L'Hermier experimented with subjective point of view and elaborate pro-filmic stylisation, while Langlois described his L'Homme du Large (1920) as 'the first example of cinematic écriture . . . a succession of images each of which signifies an idea: ideograms which can be read like hieroglyphs'.11

This is not the place to consider at length the development of the Impressionist paradigm,12 but a second main theoretical concept requires some comment. Photogénie obviously relates to the film image, considered in isolation. However, Impressionist theory was equally concerned with the concept of 'visual rhythm', governing the relationship between images, or shots. Stimulated by Gance's bold experiments in montage court, or rapid alternation editing, in La Roue (1922), the Impressionists moved from a rather slight interest in the 'rhythm of the image' (as the term would be used of a painting) to a dynamic theory of 'internal' and 'external' rhythm — in other words, rhythm within and between shots.13 After La Roue and the first appearance of extreme metrical editing, the theory gradually emerged that visual rhythm could become an alternative structuring principle, instead of remaining subordinated to narrative exposition. Henri Chomette, one of the earliest exponents of this cinéma pur, justified the transition:

But the cinema is not limited to the representational world. It can create. It has already created a sort of rhythm (which I did not mention when speaking about current films because its value in them is extremely diluted by the meaning of the image).

Thanks to this rhythm, the cinema can draw from itself a new potentiality, which, leaving behind the logic of events and the reality of objects, engenders a series of visions that are unknown — inconceivable outside the union of the lens and the moving reel of film. Intrinsic cinema — or, if you will, pure cinema — since it is separate from all other elements, whether dramatic or documentary — that is what certain works by our most personal directors enable us to foresee . . . the visual symphony.14

Chomette's two 'pure cinema' studies, Jeux des reflets et de la vitesse (1923-5) and Cinéma minutes de cinéma pur (1925), use a variety of materials and devices — shots at different camera speeds, distorted images shot through crystal, extreme close-ups, negative images and the like — edited in rhythmic sequences. Their aim is, on the one hand, to discourage any narrative or thematic construction by the spectator and induce instead a perception of 'pure'
images and rhythms. At the same time, by means of a concentrated 'inscription of the cinematic', they try to break the conventional illusionism of cinema and neutralise the automatic representation of the film image, so that the spectator's otherwise unsolicited identification is transferred to the technique or process of cinema. The thrust of this work certainly seems modernist, in line with post-Cubist developments in painting and writing, but there remains a suspicion that the impetus may after all be transcendental.

More than Chomette, it is Germaine Dulac who is identified with the musical analogy. In the same issue of Les Cahiers du mois, she argued:

Should not cinema, which is an art of vision, as music is an art of hearing...lead us towards the visual idea composed of movement and life, toward the conception of an art of the eye, made of a perceptual inspiration evolving in its continuity and reaching, just as music does, our thought and feelings (...)

The integral film which we all hope to compose is a visual symphony made of rhythmic images, coordinated and thrown upon the screen exclusively by the perception of an artist.13

Clearly the rationale behind this position is far from modernist. On the contrary, it is rooted in a romantic aesthetic which invokes the nineteenth-century notion of synaesthesia in its call for a cinema based on the supposed common 'essence' of poetry and music, the two traditional time-base arts. There are also a number of immediate problems raised by the musical analogy. First there is the question of the place of actual music: Dulac's Arabesque refers to (or incorporates) the performance of Debussy's piece by interpolating shots of hands at the keyboard amid the majority of shots which do not signify 'music', but rather the metaphoric correlates of 'Impressionistic' music. In the (presumed) absence of music performed with the film, the images are supposed to be a visual equivalence or analogue—or perhaps interpretation? But this raises the question as to whether we are intended to 'hear' or imagine the music. If so, the result would be redundant (and a denial of musical specificity); if not, then there is nothing to structure the image sequence except the images themselves, which would render the musical reference pointless. So, unless the specificity of the cinematic is to be abandoned, how can cinema aspire to the condition of visual music? The problem is perhaps that of establishing what exactly the cinematic material is and what are its modalities, as Fescourt suggested in 1926:

Rhythm, composition, melody are all modalities. To what can they be applied? What matter can the cinema offer in relation to the strict rules of musical sonority?16

Eikhenbaum was also cautiously sceptical about 'the question of filmic rhythm and its correspondence or relationship to musical rhythm'.17 His conclusion was that 'rhythmic genres may be defined, oriented not around the story-line, but around photogenie'; but, following Balazs, he assumed that the way forward was through films illustrating or accompanying musical works.

Looking back at this phase of the avant-garde, it seems clear that the musical analogy was, in fact, the least productive of the various models for 'pure cinema'. Dulac herself also experimented with 'dream structures' in La Coquille et le Clergyman (thus incurring the wrath of its author, Artaud, and the Surrealists), with poetic imagery in L'Invitation au Voyage (based on Baudelaire's poem),
Abel Gance La Rose 1922
Gance's film combined impressionist imagery with 'a moving geometry that astonishes' (Léger).
and even with a 'scientific' time-lapse record of plant germination — this last apparently the film she generally showed at lectures on film aesthetics. Otherwise the 'pure cinema' movement produced mainly documentaries, like Clair's La Tour (on the Eiffel Tower), and essays in the 'machine' genre which La Roue had so effectively inaugurated: Epstein's Photogénies (1924), Gremillon's Photogénies Mécaniques (1925), Deslaw's La Marche des Machines (1928).

As contemporary film-makers continue to explore the interplay between film and music, it becomes apparent that what the Impressionists crucially lacked was a theoretical understanding of the distinctive units, channels and codes present in film. Their commitment to the principle of photogénie led them to think constantly in terms of a single type of 'cinematic sign' or articulation based on the image. What had been an important advance when they first began to consider the 'specifically cinematic' became a fundamentally misconceived pursuit of what Garroni has called 'cinematic distinctiveness':

In asserting the specificity of the cinema — as musical specificity, pictorial specificity, etc. — it was often hoped, more or less clearly, that it would be possible to construct a cinematic code valid for all filmic material, and that the entire film would belong to the cinema. 'Specificity' for many authors, had as a vague corollary 'uniqueness of code', and this one code . . . was confused with directly physical traits such as visuality, movement, or montage in a material sense. Metz concludes that, despite the confusion into which it fell, the notion of 'cinematic specificity' which emerged from the 'first' avant-garde was important in the development of film theory. The Impressionists, however, came under increasing attack as their aesthetic programme tended towards parodicism and away from that engagement with narrative cinema, albeit radicalised, which had helped to establish the avant-garde base in the early years of the decade. By 1927 the movement was in retreat, with production curtailed, exhibition restricted to art cinemas and ciné clubs, and a growing reliance on imported films and retrospective programmes — indeed the pattern of the present-day art cinema. Nonetheless, the base established by the avant-garde was still strong enough to make possible a series of film works by major visual artists in France between 1923 and 1929. Mostly these were isolated ventures like Picabia/Clair's Entr'acte, Léger/Murphy's Ballet Mécanique, Duchamp's Anémic Cinéma — Man Ray alone produced a 'series' of films — and they never amounted to a 'movement' like the Impressionists. But their vital importance stems from the fact that they mark the (delayed) encounter between modernism and the cinema. Nearly ten years after the Futurist Manifesto of the Variety Theatre had proclaimed a modernist vocation for the cinema, and contemporary with the work of the Constructivists in the Soviet Union, these film works follow directly from the revolutionary impact of Cubism and Dada. In Léger's phrase, they represent 'the painters' and poets' revenge' after the first two decades of narrative cinema.

The terms in which Léger outlined his approach to Ballet Mécanique were in fact strikingly similar to those used by the Impressionists:

In an art such as this one where the image must be everything and where it is sacrificed to a romantic anecdote, the avant-garde films had to defend themselves and prove that the arts of the imagination, relegated to being accessories, could, all alone, through their own means, construct films without scenarios by treating the moving image as the leading character. (The goal is to break away from the elements which are not purely cinematic, to let the imagination roam freely despite the risks, to create adventure on the screen as it is created every day in painting and poetry.)

Cinematic specificity was certainly in the air, but Léger approached the issue already informed by the experience of Cubism and his post-war 'machine aesthetic' realism. Like many other artists his interest in the unrealised potential of cinema was stimulated by Gance's La Roue — or more precisely by the 'machine montage' sections on which Blaise Cendrars had worked and were eventually to be detached from the complete film for showing as a set of semi-abstract studies. Léger responded enthusiastically to the film and wrote 'A Critical Essay on the Plastic Quality of Abel Gance's La Roue' in 1922:

You will see moving images presented like a picture, centred on the screen with a judicious range in the balance of still and moving parts (the contrast of effects); a still figure on a machine that is moving, a modulated hand in relation to a geometric mass, circular forms, abstract forms, the interplay of curves and straight lines (contrasts of lines), dazzling, wonderful, a moving geometry that astonishes you. Gance's major films of the 20s belong to that category of work which is aesthetically ambiguous, or rather whose excess renders it capable of a productive mis-reading. In essence, his position remained late-romantic, heavily influenced by synaesthesia and late 19th century theatre. But, as in Mahler's massive symphonies, his straining of the expressive means at his disposal could produce an inadvertent proto-modernism. Indeed, Gance's La Roue was a decisive influence on many artists and film-makers, opening their eyes to the plastic and kinaesthetic potential of cinema. Although not itself a modernist work, it was eminently open to modernist readings and the clumsy, melodramatic narrative was effectively disregarded by its admirers.

Léger gained direct experience of the avant-garde cinema when he was invited by L'Herbier to design the laboratory sets for L'Inhumaine, a futurist melodrama which also involved architectural designs by Robert Mallet-Stevens. Léger designed the laboratory and a poster in his 'machine' style; and later Ballet Mécanique was shown with L'Inhumaine in New York. Ballet Mécanique, however, made in collaboration with the cameraman Dudley Murphy, marked the decisive instance of modernism in the cinema. In the first place, it abandoned narrative and analogical structure in favour of analytic form; the episodes and their juxtaposition were determined by the kinds of filmic material involved. Secondly, the film took as its problematic the cinema as a means of reproduction and representation, thus reinscribing the terms of its own production. Within this overall modernist shift, Ballet Mécanique also managed to re-locate the central themes of the Impressionist avant-garde and develop them coherently. Thus Léger's close-ups of domestic items demonstrate the effect of photogénie with familiar objects, while the use of prisms, mirrors and other optical transformations provides an inventory of modes of abstraction within the filmic image but one belonging to the twentieth century and not to the nineteenth century pictorial tradition that is evident in so
many of the Impressionist films. Likewise, Ballet Mécanique invigorated the idea of cinematic rhythm and created an intricate series of oppositions between internal and external rhythms.

But equally important from a present-day perspective, Ballet Mécanique acknowledged the significance of the 'look' within the institution of cinema.24 In opposition to the purist and reductionist tendencies of not only Impressionism, but also the abstract films being made in Germany, Ballet Mécanique was stylistically heterogeneous in its construction and instead of seeking to suppress such 'troublesome' items as the 'look', language and sexuality, it places them in a central position. Kiki's eyes, shown in extreme close-up, look back at the spectator from the screen, challenging his/her security as unseen voyeur and are the close-ups of her mouth laughing directed at the film or at the spectator?). Just as Kiki's face becomes one element in play, so the newspaper headline 'ON A VOLE UN COLLIER DE PERLES DE 5 MILLIONS' (5 Million Franc Pearl Necklace Stolen) becomes the pretext for a complex play of meaning with visual puns and graphic transformations.

Ballet Mécanique appears neither as an experiment nor a demonstration, but as a fully-achieved work which is nonetheless 'open' to a variety of readings and itself intersects with many contemporary concerns, not least the cinema itself. The figure of Chaplin who introduces and closes the film is actually a doll made by Léger from his cubist drawings of Chaplin: an invocation of popular cinema. This is juxtaposed with what Léger called a 'picture postcard in motion' — the girl in the garden — signifying conventional images from a saccharin cinema. The celebrated looped sequence of the washwoman enacts a 'defamiliarisation' of the realist image. As the spread of its reputation and the response of artists and film-makers attested, Ballet Mécanique was seen as a breakthrough — an avant-garde film certainly, but one which could break out of the envelope and establish its own terms of recognition.

If Ballet Mécanique presented a synthesis of theoretical and plastic possibilities, both complex and lucid, Duchamp's Anémic Cinéma was a cryptic episode in the latter's protracted disavowal of the art object. Between the semiotic richness of Ballet Mécanique and the conceptual economy of Anémic Cinéma lies the most productive terrain of 'film as film'. The story of how Duchamp came to make his only completed film work is relatively well known. He had long been interested in stereoscopic photography, in which a virtual image in relief is produced by the viewer synthesising two specially-taken photographs. Around 1920 he turned his attention to the anaglyphic process, which uses images taken and viewed through a red and a green filter to produce the stereoscopic image. According to one recent writer, this corresponded to Duchamp's intense dislike of the physicality, the odorous corporeality of painting... its excessive grounding in the sensory world.25 Stereoscopic images could be considered ideal constructions, literally produced by the individual spectator, non-physical and non-negotiable. Stereopy also appealed to Duchamp on account of its dependence on the 'forgotten' science of perspective.26 At any rate, in 1925, with the help of Man Ray, he planned a stereoscopic film using the anaglyphic principle, but they were only able to rescue a small proportion of the footage from their improvised developing apparatus. The pro-filmic equipment was Duchamp's spiral-patterned Rotary Demisphere (Precision Optics) of 1925. In the following year he used some of the series of Rotoreliefs (spiral patterns) and Revolving Spheres (with spirally arranged texts) to generate the material for Anémic Cinéma.

The title, like the texts on the revolving spheres, involves word-play: it makes a near-mirror anagram which, in effect, signals the film's basic principle of visual and verbal material rotating in an endless continuum. The texts are constructed with alliteration and puns so that they read ambiguously back into themselves, thus:

On demande des moustaches domestiques (demi-stock) pour la cure
d'azote sur la côte d'azur.27

Anémic Cinéma reaches out in two contradictory directions. On the one hand, it recalls and intensifies the primal fascination of the projected moving image — Kryou speaks of being hypnotised by the spiralling images; while on the other hand it abolishes naturalistic illusory space and inaugurates a purely graphic illusion, or, as Clair suggests, 'a conceptual space' of optical and linguistic games. Rather than claim Anémic Cinéma as the forerunner of West Coast optical and transcendent film, it would be more accurate to see it as the precursor of the conceptual/structural cinema of Sharits and Frampton, with its play between visual and verbal codes.

If Duchamp is classed as an independent Dadaist, Man Ray must be counted one of the central figures of Dada who brought into Surrealism the 'sense of gaiety' that Duchamp valued so much. The history of Man Ray's involvement in film traces a brief trajectory of Dada cinema from radical beginnings to an 'artistic' demise. An expatriate American living in Paris, who had already worked with Duchamp in New York, Man Ray became known in Dada circles as a photographer and inventor of the 'Rayogram' (or camerless photographic image). His first film was indeed mainly an extended series of Rayograms with unrelated camera footage interpolated. Made under pressure to contribute an item to the Coeur à Barbe evening in 1923, which was to be the last major Dada event, Le Retour à la Raison was reputedly the result of one night's work. Apart from its total refusal of narrative, or even graphic homogeneity, there is a link with Eggeling and Richter in Man Ray's treatment of the film as pre-projection strip — an approach which looks forward to the work of Brakhage, Breer and Le Grice. Le Retour à la Raison provides a striking instance of the characteristic Dada gesture which permits the play of automatism, chance and materials, and refuses the responsibility of form.

Between Man Ray's first film and his second, André Breton emerged from the Paris Dada group with his conception of the Surrealist movement, and many former Dadaists, including Man Ray, followed him into Surrealism. It is at this point that the 'first' Dada cinema gives way to a second, in which the traditional elements of representation and narrative become the subject of Dada subversion and, as Man Ray put it, the aim is deliberately 'to try the patience of the audience'.
along with Man Ray’s *Emak Bakia*. Conceived by the indefatigable Picabia, and brilliantly executed by the young René Clair, then working as a film reviewer, *Entr’acte* can be seen as something of a Dada anthology. It was intended to occupy the interval in a piece called *Relâche* (No Performance), given by the Swedish Ballet towards the end of 1924. Picabia, who appears in the film, along with Satie, Duchamp and many other artists and musicians, wrote:

*Entr’acte* doesn’t believe in much, is the pleasure of living perhaps; it affirms the joy of inventing; it respects nothing unless it is the desire to burst out laughing, for laughing, thinking and working have the same value and are indispensable to one another.

Maintaining Dada hostility to bourgeois propriety, the film abounds in ‘bad taste’ gags, ironic reversals and allusions to popular American cinema. But above all it is primarily about pleasure, the pleasure of non-serious creation and collective work. In fact, Breton — described by Duchamp as ‘a man of the generation of 1920 not entirely free from notions of quality, composition and beauty of material’ — had already rebuked Picabia earlier in the same year for his association with the Swedish Ballet. But Robert Desnos, trying to keep open the links between Dada and Surrealism, greeted *Entr’acte* enthusiastically, praising its speed, primitivism (recalling early Lumière and Pathé films) and its iconoclastic celebration of ‘life over death’.

Man Ray’s second film, *Emak Bakia*, was financed by a wealthy patron in 1927 and includes both an amplification of *Le Retour à la Raison* and a teasing play with narrative conventions. Towards the end there is a title: ‘The Reason for this Extravagance’. But no explanation follows, instead a nonsensical sequence of pseudo-narrative frustrates the audience even more. *Emak Bakia* is undoubtedly Man Ray’s most successful film and closest to the idea of a Dada cinema that refuses recuperation. Yet Man Ray has recorded the lack of enthusiasm among the Surrealists at their first viewing, and it seems likely that they regarded the film as a dangerous concession to the Impressionist avant-garde.

Man Ray’s subsequent two films do not belong within Dada but rather within the history of diffused Surrealism. *L’Étoile de Mer*, conceived as a ‘cinépoème’, and based on a poem by Desnos, employs distortions of image and narrative ellipsis in a manner not unlike the later Epstein of *La Glace à trois faces*. Similarly, *Les Mysteres du Château de Dés* has little obvious connection with Dada. Financed by the Vicomte de Noailles, who offered the use of his modernist house at Hyères (designed by Mallet-Stevens), it uses a motif provided by Mallarmé’s ‘Un coup de dés jamais n’abolira le hasard’ (A throw of the dice can never abolish chance) to link otherwise unrelated, though tasteful, images of the Vicomte and his houseguests at play. Once again Man Ray came close to the ‘sophistication’ of the Impressionists. If it points to the danger of modernism becoming merely modish, it is worth remembering that Man Ray subsequently declined the Vicomte’s offer to finance a full-length film — on grounds of idleness — leaving Bunuel and Cocteau free to take up the offer. The results were *L’Age d’Or* and *Le Sang d’un Poète*.

In speaking of the ‘transition’ of Dada to Surrealism it is important to stress that Surrealism was not primarily —
certainly not initially — a movement in the visual arts. Its founders were writers, mainly poets, and their distinctive position was only developed over a period of time as they attracted new recruits and engaged with the art world and the political context of the mid-twenties. Their vehement repudiation of all avant-gardes was based on a polemical contempt for bourgeois art and a corresponding hatred of purist aesthetics. In the case of cinema they instinctively attacked the Impressionist avant-garde and, in opposition, devised an alternative pantheon, including mavericks Hollywood (Siroheim), popular French cinema (Feuillade), crazy comedy (Keaton) and, in 1928, the start of a specifically Surrealist cinema with Un Chien Andalou. Along the way to this Surrealist cinema, they launched a characteristically sexist attack on Germaine Dulac for her alleged travesty and ‘feminisation’ of Artaud’s scenario, La Coquille et le Clergyman, while maintaining a virulent campaign of abuse against Cocteau, largely based on his homosexuality.31 Yet it would be pointless to deny that the impact of Surrealism has been pervasive and, in many respects, progressive. The Surrealists effectively re-defined the scope of avant-garde activity, giving it a political and a psychoanalytic dimension.32 Yet the immediate effect of the Surrealist counter-avant-garde was a repression of modernist work in favour of neo-romantic, primitivist and eclectic activity. In the cinema, they sought to tap the ‘unconscious’ of the popular cinema: but from Un Chien Andalou onwards, Surrealism began to construct its own model of avant-garde cinema, based upon procedures of subversion, rupture and the dysfunction of dominant narrative cinema. At a later stage this phase of Surrealist practice became, in its turn, a model for avant-garde cinema in the United States — although influenced by Cocteau as much as by Bunuel.

In the final analysis, Surrealism destroyed one conception of avant-garde activity and irrevocably altered the terms on which any future avant-garde would emerge. When present day apologists for Surrealism argue for the movement’s distinctness from other contemporary avant-garde currents, they are ignoring the extent to which Surrealism has imposed its programme on all subsequent avant-gardes. As a result of the Surrealist appropriation of the history of avant-garde activity, there is an obligation to reassess all received histories of the avant-garde. There is also an urgent need to study the semiotic impact of Surrealist aesthetics: in terms of intertextuality, the place of the unconscious in the production and reading of art, and the location of the modernist text in a social and political arena.33 The legacy of Surrealism is too important to be left in the hands of latter-day surrealists.

1. The organisers hoped that the Congress would lead to the establishment of an international film-making co-operative, to be based in Paris. Although nothing came of this, despite another congress in 1930, La Sarras provided an historic opportunity for representatives of the French, German and Soviet avant-gardes to meet. Among those who attended were Eisenstein, Alexandrov and Tissé (en route to the United States), Hans Richter, Béla Balazs, Alfred de Masset, Léon Mouninac, Jean-Georges Auriol and, from Britain, Ivor Montagu.

2. In addition to the standard histories by Curtis (Experimental Cinema, London 1971) and Mitty (Le Cinéma Expérimental, Paris 1974), see also Henri Langlois, L’Avant-garde française, and Noël Burch and Jean-André Fieschi, La Première Vague, both in Cahiers du cinéma, 202, July 1968. The classification of first/second/third avant-gardes was established by Sadoul and revised by Brunius, although few other writers observe their distinctions.
Louis Dulluc (1890-1924) was a theatre critic, along with Mousinac. During
WWI he was drafted into the Army cinema corps and met various film-makers;
because he was a member of the L'URL, Cine for sous, editor of
Rubrique until his death. Books include Charles Chaplin, Cinéma et cie (1919), Photogénie (1920), La Junte du Cinéma (1921), Drames du Cinéma (1923). Films
written and directed: Pâtre (1921), Le Tourneur (1921), La Femme de Nulle Part (1922), L'Inondation (1924).
Marcel L'Hermier (born 1888) studied law and musical composition before his
first attempt at screenwriting in 1917. Encouraged by Musidora. Ran his own
production company, Cinématographe, 1922-9. Later worked prolifically for various
producers 1933-52. Helped establish technicians' union 1937. Film school IDHEC 1943. Films of the twenties: Le Carnaval des Vie-
tàs (1920), L'Homme du Large (1920), Villa Destin (1921), El Oro (1921), Prométhée ... Banquier (1921), Don Juan et Fatau (1922), Renaissance (1923), L'Inhumaine (1924), Feu Mathias Pascal (1925), Le Scrooge (1926), Le Diable au Coeur (1927), L'Arrom (1928).
Jean Epstein (born 1897, Poland; died 1953). Studied medicine in Lyon;
secretary to Auguste Lumière; assistant to Delius. Books include: La Foire Aujourd'hui (1921), Bonjour Cinéma (1921), Le Cinématographe vu de l'Elis (1926), Photogénie of the impersable (1935), L'Intelligence d'une Machine (1947), also numerous articles. Films of the twenties: Pâtre (1922, 1st cente-
ny), Les Vendanges (1922), L'Auberge Rouge (1923), Cœur Fidèle (1923),
La Montagne Inflamée (1923), La Belle Nivernaise (1923), Le Lion des Moghols
(1924), L'Affiche (1924), Le Double Amour (1925), Les Aventures of Robert
Macuir (1925), Photogénies (1925), Mauprat (1926), Au Pays de George Sand
(1926), Six et Demi - Onze (1927), La Glace à Trois Faces (1927), La Chute de
le Maison Usher (1928), Thélème (1929), La Fée (1929).
Abel Gance (born 1889) early interest in theatre; acted and wrote plays, scripts. began to act in films. Directed first film (1911), caused first sensation with trick effect comedy La Folie du Docteur Téb (1915). Major films: Le
Droit à la Vie (1917), Muer Dolosso (1917), La Dixième Symphonie (1918),
Sacare (1919), La Rose (1922), Napoleon (1929).
4. Epstein's Photogénies, made from out-takes and documentary material, was
commissioned by the Vieux Colombier (and dismantled after the screenings); so
also were Six et Demi-Onze, La Glace à Trois Faces and La Chute de
le Maison Usher. Although Renoir was never close to the avant-garde, his Petit
Marchande d'Alumettes was made at and for the Vieux Colombier in 1928.
5. Jean-André Fieschi, Interview with L'Hermier, Marcel L'Hermier ed Noël
8. Epstein, 'The Essence of Cinema' (1923) trans in The Avant-Garde Film: A
10. Boris Eikensheim, Problems of Film Styleics, first pub Poética Kino, Mos-
11. Translations of texts by Dulac and Epstein appear in The Avant Garde Film ed
P Adams Sitney (see above). A convenient survey of Dulluc's writings may be
found in Cinema Journal XVI, no 1, Fall 1976: Eugene M. McCleary, 'Louis
Dulac.' Film Theory, Critical and Prophet. Longhols, loc cit.
12. David Bordwell constructs a paradigm of impressionist film style in his unpub-
lished Ph D Thesis, French Impressionist Cinema: Film Culture, Film Theory,
and Film Style, University of Iowa 1974.
13. Mousinac developed a schematic theory of internal' and 'external' rhythm in his
article 'Le rythme cinematographique', Le Crapouillet, March 1923 (also in
L'Hermier ed, Intelligence du Cinématographe, Paris 1942) and in his Theor-
e du Cinéma. Mousinac was in close communication with Eisenstein throughout
the twenties and discussed film theory with him.
Yesterday and Today, New York 1972, pp97-8. Henri Chomette was the
brother of René Clair (Clair was a pseudonym). After the two 'pure cinema'
films, he made 1924-1925. Ten films in 1927, then a series of commercial
films to 1938. He was killed in action in 1941 while with the French army in
Morocco.
1925) in The Avant Garde Film, ed P Adams Sitney. pp41.
16. Henri Fescourt and J L Bouquet, 'Sensation or Sentiment, Cine-Cour for
Tou, August 1924.
17. Eikensheim, loc cit, p16.
18. See, for instance, Liz Rodes' Light Music (1975-7) and Klaus Wyborny's
Unreachable Homelos Sonata on Film (1977-8).
19. Metz, op cit, p41. The reference is to Emilio Garmiro, Semiosica ed estenca.
20. Fernand Léger, 'Ballet Mécanique', in Functions of Painting (Paris 1965/
London 1973). This is an unpublished text dating from ca 1924.
21. These montage sequences circulated widely and were apparently seen in
the Soviet Union.
22. Léger, in Functions of Painting. Text dates from 1922.
23. On March 14, 1926 and on the same day in London, at the Film Society,
24. See Paul Willems, 'Voyeurisme, the Look and Dweiss', Aferimage 6,
Summer 1976.
26. Ibid.
27. See Katrina Martin, Anemic cinema, Studio International Vol 189, No 973,
January/February 1975 for an analysis of the texts. Also Kyrus, the leading
Surrealist speakerman on cinema, records a mysterious interpolation in some
extant versions of Anemic Cmoe. He states that the discs rotating give way to
'the faces of very beautiful women, a tank in action, a soldier ob his chest
covered in medals and a statue of Napoleon which is shattered. The soldier,
heartbroken, falls onto a couch and weeps. After this, a picture which looks
like a ready-made, the film continues as before.' (Le Surrealisme au Cinema,
Paris 1953, p.82-3.) Jean Clair reports that these interpolated shots —
apparently found only in the Danish cinematograph version — were
disowned by Duchamp (Jean Clair ed. Marcel Duchamp catalogue raisonné
CNAGGP, Paris 1977)
28. Interview with Duchamp, VM 101 (Zurich), Autumn 1970.
29. Letter from Breton to Picabia, published in Picabia's 191, no 17, June 1924.
1966.
outline of the Surrealist position on cinema and, in its introduction, a charac-
teristic Surrealist attack on avant-garde cinema.
32. See Peter Wollen, Surrealism, 7 Days, 12.1.72.
33. This text is clarified and begun in Philip Drummond's 'Textual Space in Un
Eisenstein, Vertov and the Formal Film

Peter Weibel

'I do not believe in things. I believe only in their relationships' (Georges Braque)

If, as according to Wilhelm von Humboldt, a central problem in linguistics is 'the connection between sound and meaning', one could paraphrase and say that in terms of the study of film-language precisely every co-ordination of image and image — and since the sound-film, of sound too — is a central problem, made all the more acute in that cinematographic images seem to belong much more to the realm of 'things' than to the realm of 'signs'. A guitar on the cinema screen is automatically accorded much less right to free formal transformation than, for example, on a Cubist canvas. 'The word as such' of the Russian Futurist poets, Marinetti's 'Word in Freedom', the indepe visual signs of Malevich, already existed when filmic images were still bound up with objects. The dual nature of the (linguistic) sign, anchored between signatum and denotatum, has clouded the discussion of film language. For it is precisely in the case of film that one can state that alongside signs (whose function is to describe things), there are also things which can be used as signs. It is precisely that (optical and acoustic) thing, which is transformed into a sign, that constitutes the material specific to the cinema. The Russian Formalists Tytianov and Jakobson showed how every phenomenon in the world is transformed on the screen into a sign (just as the sign is the material of all art). One can immediately observe the inadequacy of contemporary discussions of realism: does the cinema operate with things or with signs?

The semiotic status of cinematographic principles was stressed by Kuleshov: 'A shot must be treated like a sign, like a letter'. It is to Kuleshov that we owe the famous experiment whereby one and the same shot assumed different meanings according to its co-ordination with different preceding and succeeding shots. Meaning is produced not by the so-called real expression on a face, since the same face could assume different meanings, but by different syntactical connections. It was Vertov, who, of all the Russian film-makers, most clearly recognised these connections between signs, signatum, and denotatum and is, in the case of both his films and his writings, of direct and remarkable significance for the formal film. A stupid and naïve political interpretation and flawed formal readings have led to a situation where Vertov's true achievement in terms of the development of cinematography remains undiscovered, and the date of the beginnings of the development of formal film has been retarded. The decisive step forward from Eisenstein's montage theory can be located in Vertov's theory of frame-sequence (1929) when he speaks of 'organising elements of film (frames) into a sequence (phrase)'.

Eisenstein's montage theory is more literary and theatrical than is usually realised. The expression 'montage' itself comes directly from the theatre. In issue No. 3 of the journal Lef (1923), Eisenstein published the sum total of his theatrical experience under the title 'Montage of Attractions', the theory of an aggressive theatre mixing and assembling together different 'realities' (fiction and actuality) and media (film and theatre). Out of the concept of 'mise-en-scène', 'an interrelation between people in action', he produced the concept, 'mise-en-cadre', 'the pictorial composition of mutually dependent frames into a montage sequence'. These 'transitions from frame to frame' appeared to Eisenstein 'as a logical way out from the threat of the dead end of mise-en-scène'. They were filmic concepts, seen as a further development (and solution) of theatrical theories, whose first outcome is the 'parallel montage' in Strike (1924-5). Eisenstein arranges his shots and scenes according to the model of the literary metaphor and acknowledges his source in Flaubert. With the help of dissolves, he presents analogies between spies and animals such as an owl, a fox and a monkey. The factory-owner contentedly squeezes a lemon — cut to a police-horse threatening a striking worker. In the famous scene where Eisenstein edits the shooting of the strikers in parallel with the slaughter of an ox, he has spoken of a 'plastic figure of speech which comes close to the verbal image "Bloody cemetery"': To the notion of 'parallel montage', he adds in 1923 the notion of the 'montage of oppositions', regarding this as a more visual concept, citing as examples 'graphic conflict, conflict between planes, volumes, the conflict between light-tones, conflict in tempo, ... etc.' (e.g. the Odessa Steps sequence in Battleship Potemkin). Conventional film language, he wrote, is all too 'characterised by the exaggerated use of tropes and primitive metaphors, in the formation of simple concepts as a process of contrast (montage of oppositions)'. With 'dialectical montage' (cf. October (1927)) montage becomes 'a means of speech, a method of unfolding thoughts through the particular form of film language and of filmic expression'. 'The individual parts of what is represented should be unified into a generalised picture' (the unity of opposites conforming to an ideology). For example a sleeping, awakening, and standing lion are assembled into a lion staring to its feet, or the physical demeanour of Kerensky with China figures
of Napoleon, religious figures, inter-titles, etc. Whilst
Eisenstein is in general only refining earlier methods, his
conception of montage for the first time embraces all ele-
ments of the film-work, so that the film as a whole is
structured and composed as a montage-image. Where in
earlier films only two or, possibly, three elements (scenes,
images, sound) are related to each other, charging each
other mutually with meaning, here the idea is born —
even if not fully worked out — of relating all the parts of
a film to each other. The most cinematographic method
suggested, and the most complex technically, is
'polyphonic montage', which realises in small part this
concept since it operates in terms of the perpetual altera-
tion of the relationships between the individual element
and the displacements of meaning which result from them.
The rain procession in Old and New (The General Line)
(1928/9) is a precise example. To a defined sequence of
shots now are added, former shots recur, three or four are
repeated, achieving a self-displacing system of inter-
dependencies. Eisenstein for the first time attains the goal
which he set himself, viz. 'a weaving together of human
being and environment following the principle of the Cub-
ists' (cf. Braque's epigram at the head of this essay). If one
were able to characterise parallel montage abstractly it
would be something like this: AA’ AA’ AA’ . . . (an
alternation of similarity), and the montage of oppositions
thus: ABABAB . . . (a succession of opposites), then one
could characterise polyphonic montage something like
this: ABABACABACABABABCD . . . (a
sequence of recurring and new elements, with changing
relationships among them), that is to say, the meaning of
the images is defined through their relationships with one
another. Together with the idea of structuring film
through montage as a whole this is the essential fruit of
Eisenstein's five years of development between 1924 and
1929. The literary-theatrical point of departure did not
recognise (or rather repeated) the problem, of how the
film-maker should articulate meanings. Montage operated
with shots which were rooted in objective thinking, with
the image as episode. The decisive shift came when Ver-
tov radically deepened the concept of montage, in terms
of a concentration upon individual frames, instead of con-
centration on the interrelation between the camera's sub-
ject and the shot sequences.

Vertov's Film Writing

The fragmentation of space and time, of objects and
actions, through close-ups, medium shots, long-shots, etc.
and through editing belong to the earliest purely
cinematographic techniques, and with a few additions they
still have currency in present-day narrative cinema, for
they are basic methods of changing things into signs. 'The
Kino owes close-ups and the rapid succession of images to
the mise-en-scène of the American Pinkerton film.' Ver-
tov who, unlike Eisenstein, was less interested in the
theatrical aspects of film-making saw 'the psychological as
a hindrance to a close association with the machine'. 'The
Poetry of Machines' was his goal, and film was the finest
of machines. In 1922 in the We Manifesto he wrote: 'From
time to time we exclude the object 'human being' from
the shots in a film . . . (and) we discover the souls of the
machines.' Hence in terms of his art he searched for 'the
The essential element of its technique, and spoke of ‘film duration, the type of movement, the system of coordination in the image-track, etc.’ He formulated an axiom of the formal film: ‘The material — the artistic elements of motion — are the intervals (the transition from one movement to another), but not motion itself. They (the intervals) also direct the action towards a kinetic resolution. The organisation of motion is the organisation of its elements, that is to say of the intervals within a phrase. The work is constructed on the basis of the phrases, just as the phrase is also constructed out of the intervals in the movement’. It is uncanny that he defines so precisely that it is not the frame, but the interval between two frames which is the important element of the articulation of meaning. The grouping of such units of meaning (of such units of articulation), forms a phrase. Vertov has turned aside from the most fundamental illusion of film, the illusion of movement, and has forged ahead with the notion of the pure materiality of film, thereby conclusively defining certain semantic problems. In 1935 he wrote in his journal: ‘A quite different task confronts you, if the subject is complex and if you can only use individual frames for its construction which, ranged alongside each other, are no more than letters of the alphabet. You must form words out of the letters, phrases out of the words, and articles, sketches and poems, and so on out of the phrases. This is no longer montage, but film writing! This is the art of writing with film-frames. Here we encounter a high form of the organisation of film-material. The frames come together into an organic inter-relation, are united under the same conditions, form a collective body, laying bare an overflow of energy’.

This ‘quest for the Kino gram’ occurred not only ‘in the interests of creating a film alphabet, but to show reality’. Vertov poses the problem (and good artists are invariably posers and solvers of problems) ‘how can one so cut up, so arrange, so combine individual pieces of truth, that every sentence assembled, and the work as a whole, shows us the truth?’ The question is not only one of the theory of the articulation of meanings, but also concerns the truth of this meaning. The assembled frames should make truthful statements about reality. Thus he denies actors, hides his camera, negates mise-en-scène. He wants the pure and unmanipulated factual. This yearning for the factual, however, is in conflict with film-writing. While Vertov continually stresses the mechanisms of the film machine, the analytic operation through the montage of intervals, in a word the sign-character of cinematographic images, he continues to believe that it is possible to photograph life in the raw, and not to alter reality when he comes across it with his camera. ‘We leave the film studio for life, that maestrom of colliding phenomena when everything is real . . . You enter the whirlpool with your movie camera, and life goes . . . You must adapt yourself so that your work does not interfere with others.’ This profound contradiction is also evident in Vertov’s own chosen terms for his films: ‘poetic documentary’. For poetry distinguishes itself, for example, from novels or descriptive prose in that it focuses attention upon the verbal medium, the inherent laws of language itself. As in prose where verbal techniques recede into the background in favour of the content, so in documentary film-makers aim to present reality unaffected by the mechanisms of the technique of represen-
tation. Yet without manifestly admitting to it, Vertov always gave poetry pre-eminence. Simple phenomenological observation would not release the truth about reality. In this respect he had to call his truth ‘Kino-Truth’ (Kinopravda), namely truth presented through the means of film technique, through means of montage, and of the intervals between frames and so on. His truth took shape not through mere shooting, but through the specific processes of the medium. Moreover he himself knows that reality does not simply consist of the visible. It is only the alliance of poetry and analysis which articulates reality. That is why, as he puts it: ‘Mayakovsky is the Kino-Eye (Kinoglas). He sees, the eye does not see.’ Put another way: observed reality alone does not constitute images of truth, without the intervention of the Kino-Eye, the ‘reality of the medium’, which sees more. For a contemporary observer, many of Vertov’s so-called truths seem to reflect not the reality of the times but their ideology and the processes and operations by which he sought to articulate his ‘truths’.

Vertov’s ‘media reality’ is the ‘dictatorship of the fact’, which has been adopted as the dictatorship of the sign, so that frequently object and sign, the factual, and the formal coincide. In the Lenin Kinopravda (1925) ‘a metre of black leader’ is edited in before the funeral procession of the people at Lenin’s grave. The death of Lenin was prepared by trick-shots in the style of the absolute film (animated abstract figures, etc.). A clear exemplification of the fact that Vertov does not represent reality, but constructs an image of reality with the help of the film medium, can be seen from the fact that the same shots appear with different meanings in different films. A train on which negroes are perched serves in one episode of Kinopravda as an illustration of colonial domination. The same shot in One Sixth of the Earth (1926) stands for the friendly international relations of the Soviet Union, etc. It is not for nothing that this recalls the Kuleshov experiment. If Vertov were indeed concerned with the factual, so to speak, authenticity of shots, each shot could only have a constant and defined historical meaning. But clearly Vertov uses the shot like words, and as these assume new meanings in connection with each other his shots become a variable (symbol). They are the alphabet of film language, with which he produces numerous messages. In this he shuns no technical process. For instance, a printing technique demonstrates the power and might of the working class: at the top of an image split in two can be seen a worker with a hammer, below, the summit of a mountain, so that the impression is produced of a gigantic man hammering on the globe of the earth; in The Eleventh 1927-8, through a montage of closely spaced explosions the impression is given of a ‘permanent explosion’. Equally distant from reality are also scenes in Three Songs for Lenin (1934) showing Eskimos gazing longingly at the sea; the spectator finally discovers that they were waiting for the steamer with the record ‘Lenin himself’.

All these contradictions only arise if one considers Vertov’s film from the two perspectives which he himself proposed, the factual and the filmographic. These contradictions are however of an ideological nature, and disappear if one leaves aside Vertov’s political aspirations and concentrates on Vertov’s working practice. Then, one can see that in each passage from thing to sign, which as we have seen is the nature of film, his point of departure was not ‘reality’ but the material of film. By analysis of individual frames of the given and created film material, according to various parameters such as type and direction of movement, speed, tonal value, etc., he explored all possible semantic aspects and constructed from them his intended communication on the subject of ‘reality’. He created a reality which only existed in the medium, a ‘media reality’ clearly different from the perceptible world. In that he repeatedly introduced the operative elements of film — such as camera, lens, cameramen, etc. — into the image itself, or showed the film on the editing bench and as film-within-film in the cinema (Man with a Movie Camera 1929), he wanted not only to demonstrate the material and constructed nature of film, but also the reality constructed by it. If in the beginning he still hoped that ‘his work did not interfere with others’, he now shows how the camera alters reality: workers approach in the foreground with a barrow, suddenly they are walking to the side. In the next shot we see why, the man with the movie camera was lying on the ground, and the workers moved to avoid him. Or one sees a lens, which is turned until it goes out of focus, then one sees weeds which go out of focus. The apparatus of representation is not without influence upon the object being represented, the link between sign and signification is not accidental, it influences the denotatum. Those self-reflective film-sequences, whose relevance is perhaps only being understood today, show how the thoughts and attitudes of an interpreter are influenced by an artistically constructed articulated meaning. The consideration of reality or the medium (its material and construction) is also a reflection upon the construction of every other reality.

In his second masterpiece, The Donbass Symphony (1930), Vertov put into practice his theory of the ‘Radio East’ (analogous to the Kino-Eye) developed since his last Kinopravda episode, the Radio-Kinopravda (1925). By applying the same procedures which he had developed from his frame-sequences, to sound-sequences which he composed synchronously or contrapuntally with the image-sequences, he obtained complete sound-image sequences. He created a complete sound-image alphabet, in which both sounds and the manipulation of the frame determined the sense of a filmic unit. Vertov’s working notes as published here (and not generally known) demonstrate how he anticipated, exactly, the methods and procedures of serial or structural film, and how far he distanced himself from the documentary aesthetic he had once postulated. An acquaintance with the levels of formal film already reached by Vertov leads to an understanding of the experiments made in the last 15 years by a younger generation, who have researched much deeper into the material nature of film and its components, and have explored more fully the differences between perceptible reality and media reality (or rather, its intrinsic laws, in the process of abandoning the syntactic level of the separation between signifiers, signification and denotatum in favour of a semantic and pragmatic level). Many worthless polemics and ideological stances could have been avoided if film critics and makers had clearly understood Vertov’s lesson. By creating a film language, that is to say a possibility of articulating meaning in a manner specific to film,
Thereby the truth-content of the messages may seem dubious in contrast to the validity of the language created — Vertov belongs among the essential founders and champions of the formal film — and that is what is essential about him.

Translated by Phillip Drummond

2. Excluding amongst others the article by E. Schmidt and P. 'Revision in Sachen Vertov' (Vertov Reviewed), *Film*, n. 2, 1969, and the outstanding exhibition devoted to Vertov some years ago by the Austrian Film Museum. The present article is obliged to both, since it owes certain of its information to each. In particular, the display diary entries and the film-strips assembled by Curator Peter Konlechner were extraordinarily illuminating.
3. Cf. Vertov's dictum: 'Material — artistic elements of motion — is provided by the intervals (the transition from one movement to another), but not movement itself. The organisation of movement is the organisation of its elements, that is to say, of the intervals within a phrase' (from the Wir Manifesto, 1922) with the slogans of contemporary film-makers, who reduce the status of film-aesthetic experiment to the theorem that film is not movement, but that it is a sequence of frames travelling at a certain speed that produces this illusion. Particularly interesting is the parallel between Vertov's theory of intervals and Kubelka's synch-event theory and Kine theory, which are also based on the interval between two frames. Godard's image and sound experiments are likewise indebted to Vertov. Also see Frampton, Rainer, Show, Weibel.
4. For these and other source-materials and reference, see the article by E. Schmidt and Peter Weibel, 'Form und Syntax in Eisensteins Stummfilmen (Form and Syntax in Eisenstein's Silent Films)', *Film*, n. 6, 1968.
5. It is not untypical, therefore, that Eisenstein phrases, as Vertov himself notes, flows back into literature in the form of Dos Passos' montage novels, Pound's montage poetry, the montage practiced by experimental literature in the fifties and sixties.
6. Quotations from Vertov are taken from his *Aus den Tagebüchern (Extract from the Journals)* Vienna, Austrian Film Museum, 1967.
The Other Avant-gardes
Deke Dusinberre

As one casts back, again, over the history of formal experimentation in film, the international scope of that activity during the 1920s and ’30s assumes increasing significance. The broadly international and eclectic nature of the ‘avant-garde’ is often obscured by a tendency to restrict attention to the artistic capitals of France, Germany, and the Soviet Union; the less-well documented activity of film-makers elsewhere thus slips through the ragged net of history, along with an understanding of the unifying role played by the ‘progressive aspiration’ which subtended most formal innovation. The progressive aspiration that the cinema would actively participate in the desperately-needed renovation of the world (and not accept relegation to either the art museums or the entertainment palaces) obviously varied in degree and goal (from reformist to revolutionary) as well as formal strategy but nevertheless lent a spirit of unity among those who anticipated a progressive intervention from the cinema. A brief look at the film activity in countries like England, Poland, the Netherlands and Belgium, will reinforce the international aspect of formal experimentation and will point to parallels between the differing approaches labelled as ‘absolute’, ‘cubist’, ‘surrealist’, even ‘documentary’ film. A major factor in the historical oversight of this work is, of course, the capriciousness of print preservation; very few of the films exist. What does exist is the written documentation on the films, and our view of history will subsequently be inflected through the criticism and theory rather than the films themselves. This is not as great a misrepresentation as might first appear, since in many cases the theory about new forms in film preceded or even substituted (in difficult production situations) for the films themselves.

In England during that period, for example, radical formal experiment was championed by several small periodicals, which in turn cultivated a small but active group of film-makers, who were subsequently overwhelmed (historically) by the documentary movement fostered by John Grierson. The initial focal point for avant-garde film activity was the film review Close-Up, which commenced publication in July 1927 under the editorship of Kenneth Macpherson and Winifred Bryher. Edited from London and from Switzerland, Close-Up immediately acquired international reputation and, in conjunction with the exhibition work of The Film Society, established London as the site of an intellectual approach to film form. Close-up concentrated its film criticism on assaults on Hollywood ‘mediocrity’ and support for UFA and Soviet ‘art’ films, occasionally covering what it described as ‘cine-poems’ as well as documenting the work of the well-known French surrealists and the less-organised activities of independents like the Belgians Charles Dekeukeleire and Gussy Lawson and major individual figures like Eggeling, Richter, Ruttmann, and Lye. It also noted the formation of avant-garde production groups like ‘Neo-films’ in Paris (under Cavalcanti) and ‘Excentric Films’ in America (Herman Weinberg and Robert van Rosen). The magazine similarly encouraged the production of cine-poems and abstract films in England, such as the poet H.D.’s attempt to make the ‘first free verse [film] poem’, Wing Beat, in 1927. It is unclear whether the film was ever completed; the lack of any trace of the film today and of any review of it at the time have led me to assume that it was not. However, Oswell Blakeston, a film-maker and critic associated with Close-Up, recollected in an interview1 that the film was in fact finished and that Close-Up’s subsequent silence was due to an obscure embarrassment, either between H.D. and Macpherson or over the film itself. At any rate, no other record of the film’s completion or screening has yet come to light. Blakeston himself had more success and made I Do Like to Be Beside the Seaide (1927), with H.D. and others as players, as something of a spoof on the pretentiousness of ‘intellectual’ film criticism. Described by a contemporary reviewer as ‘...a brilliant and amusing commentary on the technical devices of many well-known producers of films’ (Dulac, Man Ray, Leni, Dreyer, and Eisenstein are subsequently cited), it was contrived around ‘an airy thread of story involving a typist;2 Blakeston advises that the only print of it was destroyed by fire during the second world war. Blakeston also worked closely with the photographer Francis Bruguier, and in 1930 the two completed Light Rhythms, a totally abstract film. ‘Pure’ in conception, the five-minute film represents a radical statement in film aesthetics, ‘...in which the material consisted of static designs in cut paper over which various intensities of light were moved. The appeal of the film lay in the changing light values, which were revealed by the cut paper patterns.’ A look at the graphic ‘scores’ detailing the light movements reveals five sections or ‘movements’, each with six sequences; the symmetry and dynamism evoke the patterned structures of Eggeling or perhaps Richter, while stills suggest a more complex surface of light and shadow than is offered in either Diagonal Symphony or the Rhythmus series.3 In addition, the musical score by Jack Elitt, who was later to work with Len Lye, was composed to enhance the sensation of progression and permutation.
This was successful enough to enable them to find a sponsor, the Empire Marketing Board, for their next film, completed in 1931. Entirely abstract and again involving the movement of light and shapes, the short film eventually delivered a lettered message: 'Empire Buyers are Empire Builders.' Blakeston defended the advertising efficacy of such an approach with the comment that through such abstraction 'the screen (was) used as the ultimate nerve end.' He also optimistically assessed the creative and economic potential for film-makers: '...an experimental approach can only be found in the new possibility of the advertising film. Indeed, the advertising film provides an economic basis for all pioneer work at the moment.'

Yet it is Len Lye who is generally credited with demonstrating the feasibility of formal experimentation in an advertising context when he convinced Grierson to use his masterful Colour Box as a GPO promotional film in 1935. It too was an abstract film which concluded with a lettered message ('use parcel post'), but in Colour Box Lye painted in colours directly on to the film-strip rather than animating images photographically frame-by-frame. The result was an immediacy and freshness of rhythm and colour and permutation which awarded the film its deserved reputation as one of the finest avant-garde films of the 1930s. Lye went on to explore colour and animation techniques in nine films completed before the war, most of them under the auspices of the GPO Film Unit (Lye's very first film, Tasalava, a straightforward animation of 'aboriginal shapes', had been completed by 1929 with film stock contributed by members of The Film Society) but several of them for commercial sponsors, such as Birth of a Robot (1936, Shell-Mex) and Colour Flight (1937, Imperial Airways). Lye has earned his reputation as a significant avant-garde film-maker on the strength of films like Rainbow Dance (1936) and Trade Tattoo (1937) and on his attitude to the expressive qualities of colour, which prefigured much of the personal American cinema of the '40s and '50s (e.g., Lye wrote in the mid-'30s, with only a little irony: 'I myself am not a technician and designate myself as a colour playboy intent on my contact with reality to supply it with a mental aphrodisiac just for the sake of what happens ... the subtleties of mind invested in beauty.'). But it should be stressed that Lye and his fellow-animator at the GPO, Norman McLaren, were by no means the first or only film-makers working in this area. Their association with the GPO meant that the films were more widely distributed and exhibited, that their films would be preserved by a state institution, and that they would inevitably figure in histories of the GPO Film Unit itself, thus contributing to the misleading impression that they were the only radical formal innovators in England in the 1930s.

Meanwhile, Close-Up's editor, Kenneth Macpherson, had completed two films Monkey's Moon (1928) and the ambitious psychoanalytic drama Borderline (1930) neither of them very successful in terms of critical response. In its own critical activity, the magazine became increasingly devoted to the work of European directors lured to Hollywood in the early '30s, and its sympathy for the avant-garde waned accordingly. Close-Up folded at the end of 1933, but not before its role as the 'voice of the avant-garde' had been usurped in the spring of that year...
with the publication of *Film* by B. Vivian Braun. With the next issue, the quarterly became *Film Art* and continued publication, somewhat irregularly, into 1937. While under Braun's direction, *Film Art* 's masthead proclaimed itself as the 'international review of advance-guard cinema'. The magazine's tenure is perhaps most notable for its efforts to co-ordinate production and exhibition with the criticism it offered. Braun, like Macpherson, understood that critical intervention was only part of his role in the avant-garde and he completed several films, one of which, *Beyond This Open Road*, was screened by The Film Society in November 1934. Made with Irene Nicholson, then an assistant editor of *Film Art*, it was a 'symphonic treatment of the open air'. The programme notes to The Film Society performance offer a laconic description of the film's production: 'This silent film was made in thirteen days and shot with a hand camera. The director was given waste material amounting in all to 1500 feet, out of which in the final cutting emerged 1000 feet of completed picture.' The production is credited to the 'Film Art Group' which announced itself at that point as the 'First Cinema Unit for the production of Specialist Films' and 18 months later listed five films for distribution (three credited Braun, with *Beyond This Open Road* distributed in a sound version). Additional films were made under the magazine's aegis, such as Nicholson's *Ephemeral*, a seven-minute 'film poem of light and passing time', and a mathematically abstract film by Robert Fairthorne (also a film theorist) and Brian Salt designed to visually demonstrate the equation of its title, $X + X = 0$.

In the mid-'30s, there was still a high level of energy surrounding avant-garde film, which yielded some solid accomplishments. Unfortunately, some of this energy was siphoned off into personal disputes; Nicholson assumed the editorship of *Film Art* in 1936 when Braun left to launch the rival *New Cinema* and animosity between the two camps is evident. *New Cinema* published only one issue, and *Film Art* ceased publication in 1937. Nevertheless, by that date there had been references in these magazines to 20 avant-garde films made by 12 film-makers outside the aegis of the GPO Film Unit. Although it is impossible to assess the merits of this work (almost none of the films is extant) it is obvious that the situation in England was healthier and far richer than is generally acknowledged, particularly when one adds the commercial and GPO sponsored film of Lye and McLaren. It should be stressed here that the GPO did not pose a threat to the avant-garde in the '30s, nor was it perceived as an antagonist. Quite the contrary. The Film Unit was on the upswing during those years, and there was the opportunity to work with a relative degree of freedom in form and content attracted a wide range of artists (Jennings, Coldstream, Britten, Auden) who shared the aspiration for progressive social intervention through the cinema. Articles in *Close-Up*, *Film Art*, and *New Cinema* cited the work of the Film Unit as exemplary, and attempted to incorporate certain films into the avant-garde canon by stressing the experimental nature of certain techniques within the 'documentary' tradition, such as the use of sound in *Coalsack*. The critical goal of the avant-garde apologists was to establish the need for a new visual and aural language in order for the cinema to fulfil its progressive potential. This attitude waned, however, and the Film Unit style became more exclusively 'realistic' in an unproblematic and transparent way. Those interested in formal experimentation were subsequently relegated to the margins of history; Lye and McLaren were accommodated as eccentric insiders, and the outsiders were simply forgotten. That disappearance from history was facilitated by the fact that avant-garde film-makers in London in the '30s had no other base or context — the absence of an intimate relationship with other fine arts is striking. In sharp contrast to the situation in Paris, for instance, modernist artists in London felt little allegiance to the cinema. The 'Unit One' group comprising some of Britain's more important artists; Barbara Hepworth, Ben Nicholson, Henry Moore, Edward Wadsworth, Paul Nash, Frances Hodgkins, and Edward Burra, was committed to the 'expression of a truly contemporary spirit' but does not appear to have considered cinema as part of that contemporary spirit. The English avant-garde cinema of the '30s simply remained outside of the modernist movement in fine arts, and was eventually banished by the 'realist' aspect of the documentary film movement.

In Poland, on the other hand, avant-garde film-making during the 1920s and '30s was closely identified with several fine art groups and activities. In his article on 'The Nascence of the Polish Experimental Film', Janusz Zagrodski clearly establishes the connection between constructivist aesthetics and the development of an avant-garde film culture. 'The constructivists' conception of a work of art is an expression of the latest attainments of contemporary science and technique opened up areas as yet inaccessible to artists. The painters and sculptors who contributed dynamic and kinetic forms to art...saw in film a way to tackle many problems which had been considered insoluble.' Mieczyslaw Szczuka, a member of the constructivist group 'Blok', tested this theory early in 1924 when he elaborated an abstract film concerned with shifting relationships between hand-drawn geometrical shapes and lines. The extant designs for the film show the strong influence of German Bauhaus aesthetics in general, and of Viking Eggeling's work in particular. Szczuka would have learned of these developments from art periodicals of the time, and in December of 1924 published his own scenario in the magazine *Blok*, which reads, in part: 'Movement as a change in place: the coming and going, but not changing, of geometrical forms. The dynamics of forms: reduction or enlargement of forms, transformations of forms, the disintegration or construction of forms.' Szczuka began another film in 1925 entitled *He Killed, You Killed, I Killed* in which typographical signs (letters and words) were juxtaposed and recombinated in graphic presentation to produce a series of changing meanings and experiences. The film unfortunately remained incomplete at Szczuka's untimely death in 1927.

The 'Praesens' group, based in Warsaw and composed of painters, sculptors, and architects, also promoted progressive ideas in film form by organising occasional screenings, publishing statements on film in their monthly periodical, and most concretely through the work of a young architectural student associated with the group, Stefan Themerson. With Franciszka Themerson he made
The Pharmacy in 1930, in which they developed an animation technique to mimic the effect of photograms. A camera was fixed to a stand below a piece of glass covered with tracing paper, above which were several moveable light sources. Objects placed on the paper would register the outline of their shape when seen (and photographed) from below; that outline could of course be manipulated in an infinite variety of ways through manipulation of the lighting. Filmed images recorded thus and projected in negative looked very much like photograms, and The Pharmacy was a short film which utilised apothecary's objects to produce abstract images projected both in positive and negative. Following some experiments in photomontage, the Themersons made a film version of Anatol Stern's anti-war poem 'Europa' in 1932. This was very well received at its première screening in a programme organised by 'Praesens' on 22 January 1933, which also included films by Hans Richter and Joris Ivens. The 12-minute Europa, which was unfortunately lost during the war, apparently combined the best elements of photomontage and cinemontage, offering vivid images in shifting tempos and striking contrasts to construct a portrait of Europe, obsessed with consumption and violence, heading toward destruction.

Another avant-garde film had a successful reception that year, in Cracow. Janu Kurek, editor of the periodical Linia ('Line') which was loosely affiliated with an avant-garde association of poets, painters and sculptors known as 'a.r.', made the abstract OR (Obliczenia Rhythmyczne = Rhythmic Calculations) in which two apparently unrelated visual sequences were forged into a unity through uniform rhythm and complementary composition. Meanwhile, the art editor of Linia, Kosimierz Podsadecki, organised the Studio of Polish Avant-garde Film in Cracow in 1932 with a colleague named Janusz Brzeski. Significantly, Brzeski and Podsadecki had organised the influential exhibition of avant-garde photography in Cracow in March 1931, which included work by Man Ray, Moholy-Nagy, and Hans Richter. Podsadecki and Brzeski produced their own photomontages, attracted perhaps by the fact that photomontage techniques in addition to their status as a transition between a static image and cinematic montage suggested a link between the formalist strategies of the constructivist movement and the contextual concerns of the surrealist movement. It is conceivable that their film Beton ('concrete' in German) also attempted to link those concerns; while the film reportedly used an actor (Podsadecki himself) to present an image of 'human alienation amidst the technology of the city,' Podsadecki's theoretical writing stressed the abstract aspect of the pure moving image and his article entitled 'We Need the Abstract Film' discussed the need for a new vision of the object.

Somewhat surprisingly, the Themersons (then in Warsaw) do not recall having been aware of the activities in Cracow; that, and the absence of any further film work in Cracow, suggests that its impact was rather localised. The Themersons, however, did continue to make films in addition to their other work with photomontage, painting (Franciszk), and literature (Stefan). In 1935 they were commissioned to make a short film for a glass manufacturer, which resulted in Musical Moment, involving dynamic montage of photogram-like images of glassware.
The same year saw the production of a film financed by a government social services agency on the topic of electrical safety, titled \textit{Short Circuit}. The increased possibilities of film-making through sponsorship led to the founding of the Polish Film-makers' Co-operative by the Themersons in 1935. The fourteen members of the Co-op were available to assist one another in various aspects of any given film project, and included individuals like the composer Lutoslawski as well as committed film-makers like Alexander Ford. In an effort to promote distribution of their work, the Co-op was affiliated with the major short film distribution service in Poland, but 'philosophical differences' mitigated against effective support from the distribution agency and the film-makers were generally too busy to handle distribution themselves.

In 1936, the Themersons travelled to London and Paris. In London they met Moholy-Nagy and were impressed by his \textit{Black-White-Grey}, and were also introduced to the work of the GPO by Grierson himself. They returned to Warsaw with a programme of films from London (and another from Paris) comprised of Moholy's film plus four Grierson-produced films (\textit{Song of Ceylon, Night Mail, Coalface, and Colour Box}). The Themersons published two issues of a magazine \textit{The Artistic Film} to coincide with those screenings in 1937. In addition to articles on the films in the programmes, \textit{The Artistic Film} contained local film-making news and information on the Co-operative. The Themersons meanwhile produced another film, \textit{The Adventure of a Good Citizen}, a farce involving citizens who insist on 'walking backwards' (instead of marching forward). Asked about the relationship between the formal concerns of their films and political attitudes of that period, Stefan Themerson recently commented that they considered that 'new forms were revolutionary' and that they thus concentrated primarily on a formal interrogation of the medium. Clearly, though, there was some correlation between a progressive aspiration and formal innovation, and it is interesting to note that the radical formalist Szczuka was a member of the Polish Communist Party, and that the Co-operative included progressive documentary film-makers like Alexander Ford, who made documentaries on the neglected 'boat people' of the Vistula and on the Spanish Civil War. But the outbreak of the second world war obviously ended artistic experiment in Poland; the Co-op dispersed. The Themersons, who had moved to the more stimulating environment of Paris in 1938, managed to emigrate to London (where they still reside) and completed two more films (\textit{Calling Mr. Smith}, 1943, and \textit{The Eye, The Ear}, 1945) under the auspices of the Polish Film Unit.

In light of the progressive aspiration for cinema which prevailed among film-makers and theoreticians in the 1920s and '30s, it is worth reviewing some activities which might be considered marginal to an avant-garde film tradition. The painter and theoretician of neo-plasticism, Theo van Doesburg, for example, never made a film of his own, but he argued strongly for the production of such films in the Netherlands. In the early '20s, van Doesburg promoted the idea of abstract film through his influential periodical \textit{De Stijl}, discussing the work of Richter and Eggeling in 'overcoming the static nature of painting through the dynamism of film techniques' and even sug-
gested that 'as Germany is too poor to exploit this form of art commercially, another country (Holland's strong currency makes it the right one) must industrially, and therefore financially, make possible a Bayreuth of the new film culture.' It was also van Doesburg who declared that film of the future would offer 'the artistic solution of the static and dynamic', that polarity which so occupied the neo-plasticists and the constructivists. If the prophecy of a cinematic Bayreuth in the Netherlands now appears endearingly naive, it does reflect the scope of van Doesburg's ambition for neo-plasticism. It was to be an international art movement which sought to establish 'elementary and universally intelligible principles of visual art' based on the fundamental properties of the square and the plane and which would 'accept the consequences of modern; this means finding practical solutions to universal problems.'

By 1929, van Doesburg felt that abstraction on a two-dimensional screen was no longer a positive solution to the aesthetic problems posed by the cinema. He stated that the 'pure' creative film entailed: 'light-movement-space-time-shadow.' The stress was on space and, dismissing the flat canvases of Richter and Eggeling, van Doesburg urged that the entire projection space be incorporated into the film experience. 'Film as a pure work of art will be based upon infinitely finer spatial sensitivity. Instead of a painterly setting, an architectural one will first be necessary. The newly mastered medium will make possible a new light-architecture, bringing forth dimensions hitherto unsuspected. . . From this it follows that the spectator space will become part of the film space.' Van Doesburg's three-dimensional cinema was not realised at the time (although it was related as he acknowledged to the light and shadow play experiments at the Bauhaus and elsewhere) but it is a strikingly accurate prediction of much of the work of the international 'expanded cinema' events of the 1960s and '70s. Moholy Nagy was another theoretician who urged the expansion of cinematic experience into what he termed 'poly-cinema', which entailed multi-projection of abstract or representational (even narrative) images onto irregular projection surfaces which would spatially interact to form a synaesthetic experience. Moholy argued that poly-cinema paralleled the intense poly-sensory experience of modern urban life and that the conjunction of these sounds and images should be incorporated into a creative dynamic. Menno van der Braak, another important Dutch film theorist who published a book on The Absolute Film in 1931, had envisaged a similar role for the cinema when he stated in 'Cinema Militants' that, whereas the pseudo-film began with the film actor, the dishonest potentiates, the cineastes, the apostles of independent film are reaching out to mute nature in its elemental form, photographing inanimate objects, throwing themselves on cranes, towns, bridges, onto slowly bursting buds.'

Elemental abstraction from nature and civilisation is a fair description of the early work of Dutch cineaste Joris Ivens, whose first three films The Bridge (1928), Rain (1929), and Industrial Symphony (1931) claimed as immediate forebears the films of Ruttmann, Richter, and Eggeling, which Ivens had seen at the progressive 'Filmliga' ('Film league') in Amsterdam. Ivens' images are drawn from natural and industrial life, but are presented with a strong emphasis on abstract patterns, bold composi-

2. From an interview with this author in December 1079.
8. Januar Zagrucki, 'The Naissance of the Polish Experimental Film', Projekti, no. 102, p. 28-29. Most of the information in these passages on Poland are drawn from Zagrodecki's article (published in a slightly revised version, 'Der polnische antiprofessionelle Künstlerische Film', Film als Film, Kolin, 1978) and from an interview with Franciszka and Stefan Themerson in January 1979.
11. van Doesburg, 'Film as Pure Form', Form, No. 1, Cambridge, 1968, p. 11
13. as quoted in Bredero, op. cit., p. 93.
15. Soir (Belgium), 22 October 1971.
Wholly non-objective film work has received little sensitive appreciation or detailed critical attention, probably because of the difficulty in establishing a viable verbal language to describe the multitude of colour, forms and textures, juxtapositions, movements and gestures which make up the very essence of these films. Even the names commonly used for the genre each have their drawbacks ('abstract' implies incorrectly that the imagery is imitated and refined from some 'representational source, 'non-objective' seems to embroil one in the tautology of defining 'subjective' and 'objective', etc). We badly need an extensive critical history of non-objective film, including a verbal-visual glossary linking hundreds of stills from the films with precise descriptive terms. But until such a work has been produced, I will of necessity fill my following discussion of non-objective film (occasionally using 'abstract' for stylistic variation) with critical and descriptive vocabulary derived from painting, dance, poetry and music, without meaning to imply that the film-maker under discussion was imitating those sister arts, or would even approve of having such terms borrowed and applied to the work.

One is always tempted, when trying to impose some order or shape on the sizeable literature of non-objective films, to establish the surviving works of pioneer film-makers of the 20s as role-models for the directions in later film-making. Among the dangers of this approach are: (1) that it supports the questionable custom of honouring primacy, (2) that it tends to gloss over the essential primitiveness of much of the pioneer work, (3) that it suggests and maintains connections or influences where none may have existed historically, and (4) that it tends to confuse rather than clarify some essential aesthetic issues by supplying similar rationale or structure to what may be only superficially similar visual effects.

Hans Richter, that Pope of Prolepsis, is responsible for stressing the value of primacy, seeking, I suspect, to give his own films some importance beyond their intrinsic merits by continually citing (and by adding titles to the films themselves) early dates (not clearly certified by contemporary documents) for his own films, while mentioning later dates (which can be proved by contemporary documents to be considerably too late) for the films of his 'rivals', notably Ruttman and Fischinger. His claims are in vain for several reasons. In no case did Richter make the first abstract film, as the idea had been in the air for at least a decade before it reached Richter. Not counting the pure abstract 'reels' for zoptopes, praxinoscopes and other 'philosophical toys' from the previous century, or the 'colour organ' tradition (discussed elsewhere in this catalogue), we know that the Futurist Italians Arnaldo Gianna and Bruno Corra produced half-a-dozen colour non-objective films between 1910 and 1912, apparently by painting directly on the film material, and separately Hans Stoltenberg in Germany also made a hand-painted abstraction in 1911 and wrote a complex theoretical text (published in 1920) about the aesthetics of his experiments. We know that painters like Kandinsky and Malevich, and painter-musician Schönberg made considerable plans for experimental/abstract films but were unable to realize them technologically, and Russian painter Leopold Survage, a darling of the Cubist painter set in Paris, actually prepared, between 1912 and 1914, more than 100 beautiful sequential color drawings, but despite publicity by Cendrars and Apollinaire, was unable to get the backing to have them photographed.

All of this serves to focus on yet another related problem: preservation and distribution of films. That we have only fragmentary black-and-white silent prints of Ruttman's originally hand-coloured films which had musical accompaniment must not hinder our appraisal of Ruttman's achievement — and screenings and prints of his films should be prefaced by a notice admitting that the currently known prints may not even contain excerpts from three different films at all since the various sources for the fragments are equivocal, and what we see now are certainly not like the original, substantially longer films Ruttman showed in the 20s. That there are no prints in general distribution of the lovely abstract films of Henri Chomette and Germaine Dulac, nor any surviving prints of Eggeling's horizontal-vertical orchestra or Ruttman's Opus 1 or the early stereo experiments of Marcel Duchamp or Henri Stork's first hand-painted abstract films must not let us forget their pioneer achievements.

On the other hand, the primitiveness of many of the early abstract films, while understandable, is too often ignored. Ruttman's Opus fragments, even in their depleted condition, are brilliantly executed and essentially cinematic in conception, but were it not for Eggeling's visual intelligence, Diagonal Symphony would be hopelessly boring. The primitiveness of Richter's Rhythm film(s) is too often mistaken for minimalism (something not found elsewhere in Richter's painting or theories) and the roughness of execution, which must be excused beforehand in order to watch the film(s) at all, seems to de-sensitize us and mask the fact that this film dedicated to rhythm is actually erratic, un-rhythmic, and badly organized.
In any case, Richter's achievement in his Rhythm experiments must be evaluated dispassionately, treating the film as a pure art object in its own right, free from propaganda about primacy and free from the soundtracks added later. On these grounds Richter's films seem far less satisfactory than those of Eggeling and Ruttmann.

I am now able to pursue an analogy between the pioneers and the abstract film-makers of later generations with an awareness of the inherent problems, and hopefully arrive at an enriched understanding of the unique and varied achievements of each artist.

Ruttmann's Opus films, to judge by surviving fragments, express a dynamic, romantic unfolding of pictorial non-objective drama. The fragments labelled as Opus II and Opus III (but perhaps from the same film) are painted on glass (with the exception of one brief shot of a three-dimensional model mentioned later) which allows them great organic fluidity, while Opus IV seems made primarily with cut-outs and drawn hard-edged images that produce sharp, Op-art effects.

Ruttmann is continually aware of the screen both as a shallow pictorial surface like a canvas, and as the illusory space of representational conflict. He causes the frame edge to contract and pulsate, and often outlines his image with a rectangular dark border reminiscent of a picture frame, so that the viewer is kept conscious of the projection as a vehicle. He further plays with the viewer's reflexive sensitivity in such scenes as the sequence in Opus II in which a cluster of circles, without changing through animation, seem to pulsate slightly backwards and forwards, implying a change of the projection mechanism or the viewer's perspective on a static object; but then suddenly the circles yield to a vivid animated transformation which reinforces the first questioning, as does a later 'musical' repetition of the whole sequence. In another reflexive scene (from Opus III) the multi-layered image shows vertical dark bars surrounded by obviously drawn semicircular forms that seem to slide up and down the sides of the bars while 'behind' this action the density of the luminosity changes as if some distant doors were being opened and closed; then suddenly we see a similar image (three vertical bars with protruding circular shapes) but derived from photographed three-dimensional forms (a stick with a kaolin coil twisted around it) in clear contrast to the 'flat' forms surrounding it.

Ruttmann plays with a full range of optical ambiguities — from planning the painted animation steps of a shrinking phallic shape so that it implies a tunnel behind the figure, to using in-set sub-screens, to the brilliant Op-art effects of Opus IV in which expanding horizontals imply twisting Venetian blinds, and the flickering shapes produce colour after-images on their edges, and positive/negative matting presses the rôle of the film-maker as manipulator into the fore.

Ruttmann formulates his graphic artistry into a continuum based on analogies with music and drama. The gestures of his figures — gliding, pulsing, dripping, swelling, flickering, etc. — occur in sequences and rhythms that rival the organic complexity and disciplined textural

Waiter Ruttmann: Opus III 1920-24
A variety of symphonic orchestral music, with themes and melodies repeating and changing in variations of speed and density, with harmony and counterpoint of shape (and perhaps even colour in the original). The figures, though non-objective (except for the inset wave image which is of questionable position in relationship to the Opus films), seem to enact conflicts and crises, amorous raptures and adventurous transformations — for example, the glowing, rounded sensuous shapes erotically cradling and penetrating and erecting themselves are clearly attacked by the opaque black squares and pointed shapes that just in from the top of the frame and drive them out the bottom. But Ruttmann’s drama seems neither literary or referential, but rather exploratory in a ‘science fiction’ realm where waves can flow up-hill.

Of all the early non-objective films, Ruttmann’s have the clearest lineage of direct influence, although his films, even in their currently-known fragmentary and inauthentic (as to colour and music) state, were generally unavailable. The ‘medium’ for the transmission of Ruttmann’s achievement was his younger compatriot, Oskar Fischinger, who was so impressed by Ruttmann’s Opus I that he immediately set about making his own abstract films. Of all the early pioneers, Fischinger alone pursued non-objective film-making until the post-World-War-II period, and since he emigrated to America in 1936, he brought the living force of abstraction to a younger generation that included the Whitney brothers, Jordan Belson and Harry Smith.

Though certainly not a pupil or co-worker of Ruttmann’s (as Richter claims), Fischinger chose to develop many of the themes and styles implied by Ruttmann’s Opus films. Fischinger loved to work with rich, intricate images, and used his fascination with technical innovation to produce, in dozens of different animation media, some forty films in which the articulation of imagery and dynamics is remarkably fluid and complex. Like Ruttmann, Fischinger treated the screen alternately as a flat, canvas-like surface and as an arena for magical illusion. Like Ruttmann, Fischinger chose painting, music and drama as his triple aesthetic rôle models, mixing the three together to form very enjoyable and abidingly successful theatrical entertainments.

One of the new elements we find in Fischinger’s films (though since Ruttmann animated sequences for Wegener’s feature Lebende Buddhas, perhaps not entirely new) is a continuing interest in eastern mysticism and western hermetic thought — something Fischinger shared with Kupka, Kandinsky, Mondrian and other non-objective painters. From at least the late 20s, Fischinger focused the romantic drama in his compositions on mystical, contemplative, and speculative-scientific icons, transforming Ruttmann’s erotic interchanges into Tantric encounters, and filling his best films (e.g. Study No. 6, Liebesspiel, Komposition in Blau, Radio Dynamics, and Motion Painting) with non-objective suggestions of galaxies, comets and rockets, cells and atom splitting, and Mandalas, yin-yang swirls and third-eye images.

Fischinger began to use tight synchronization between his visuals and musical soundtracks as a helpful analogy for audiences who, in the 20s and 30s, were still somewhat astonished by and antagonistic towards abstract art. Fischinger never intended to illustrate music, but rather hoped that the viewer, reminded that music is really abstract ‘noise’ with a 1000-year artistic tradition behind it, would more easily be able to relate to his graphics. Unfortunately the plan backfired, and his films became widely misinterpreted as illustrations of music. While his silent films (including Liebesspiel and Radio Dynamics) were never screened publicly in later years, his pop-classical shorts played frequently and became identified with the sort of kitsch culture of Disney’s Fantasia and Mary Ellen Bute’s Radio City Music Hall novelties. The younger generation of West Coast American film-makers, while deeply impressed by Fischinger’s visual and technical mastery, was offended by his soundtracks and hence overlooked the mystical wisdom discussed in his films. Ironically, the best three film-makers of this group, James Whitney, Jordan Belson and Harry Smith, are all deeply mystical themselves, and each privately re-discovered much of the spiritual territory Fischinger had already explored.

The closest to Fischinger of these younger artists is Jordan Belson, who turned from non-objective painting to film-making after seeing Fischinger’s films at the Art in Cinema festival at the San Francisco Museum of Art in 1946. In those years, Belson, living in North Beach near City Lights Bookshop, was part of the exciting movement publicized as the Beat Generation — full of Dizzy Gillespie’s jazz, marijuana and Zen Buddhism. Belson’s early films exhibited an extraordinary joie de vivre as well as considerable technical ingenuity and the exquisite sense of colour, form and movement that also distinguishes his later films.

To take two examples from these early films, Bop Scooch consists of single-frame images of objects on ordinary sidewalks, but photographed so carefully in such a well-planned sequence that the objects seem to assume living form, moving and flowing into one another (which foreshadows Hirsh’s Defense d’Afficher and Conner’s Looking for Mushrooms), something that strongly suggests the Buddhist respect for the spiritual identity of all matter, but which could easily be accepted as a McLaren-like romp. Raga consists of beautiful, complex patterns which were painted on scrolls and planned in such a way that while the scroll was unrolled and drawn past a kaleidoscope in real time, the circular multiplication of the image by the mirrors created an ever-metamorphosing mandala. Again, even though this film exhibits a wide range of astonishing and spiritually moving images (including quick disappearances of images to produce lingering after-images, and bi-directional movement of circles both imploding and exploding at the same time), Belson felt that the basic kaleidoscope technique was too obvious, and tended to make the film appreciable as a technical rather than spiritual phenomenon. It took considerable courage and artistic integrity for Belson to withdraw these films from circulation.

In the late 50s, he collaborated with the electronic composer Henry Jacobs to produce the Vortex Concerts at Morrison Planetarium in San Francisco — a prototype for later light-show work. Jacobs arranged electronic scores by various composers, and Belson prepared multi-projector non-objective visuals using filmed materials by James Whitney, Hy Hirsh and himself. The experience of these light-shows, coupled with his growing spiritual devo-
tion and mastery, caused Belson to withdraw his early films from circulation (because they imperfectly expressed his spiritual ideas, he felt), and to go into seclusion while he perfected a new non-animation, real-time system for image production (including grids, reflections, rephotography and other light-show devices), and a new expertise with recording equipment that allowed him to compose his own electronic scores for his films. Starting with Allures (1961), Belson began producing his Great Work, a series of films, continuing to this day, which establishes a personal audio-visual language — a goal that Egdeling and Fischinger had already longed for; but though Fischinger laid his personal stamp upon certain visual elements like the comets-crescent and the concentric circle alignment, no other non-objective film-maker has successfully developed an articulate non-verbal language to the extent or complexity of Belson.

The first ten films of his series function as definitions and expositions of certain phenomena, experiences and concepts — largely focused on mystical-spiritual and speculative-scientific issues (like Fischinger, but entirely independent of him). In his most recent two films, Cycles and Music of the Spheres, Belson has begun to discuss and interbreed his ideas — using, for example, a brief clip from Light to signify perceptual phenomena or light-energy transmission, a bit of Chakra to signify some point in raising consciousness through kundalini yoga, a glimpse of Samadhi for ecstasy, etc. — but blending them together in new combinations, mixing them with new imagery (sometimes live-action shots modulated through video mix or optical printing) to produce completely fresh insights. Cycles is dominated by a recurrent ‘new’ image of liquid matter swirling very slowly with one ‘drop’ or particle breaking away and rising from the main body (concomitantly suggesting a yin-yang icon). Every time it recurs, this cycle is given a different visual quality and is matted with other information (including signifier ‘quotes’ from the preceding members of the series). Gradually it yields an invocation of the four elements of classical alchemy — earth, air, water and fire — each with a characteristic texture (e.g. square grid for earth, etc.) and each evolving into a mixture or blend with the next through integrative imagery (e.g., a circle of sky-divers = earth through air, and later, by juxtaposition with the circle/sun icon, = earth through air and water making fire, etc.).

Having attempted to describe Belson’s films, it should be admitted that one characteristic of a non-verbal language, of course, is that it can express and discuss things which cannot easily, or at all, be expressed in words, and indeed one of Belson’s preferred motivations for making non-objective films is to transcribe and communicate mystic visions and states of consciousness he has experienced in his spiritual exercises and cannot communicate otherwise.

Belson uses every cinematic device — sound and visual — to portray his concepts, and he manages to charge each device with undeniable and special meaning. Allures, for example, is structured in three parts, an opening optical invocation (in which a series of visual ambiguities and illusions ‘exercise’ the eyes and visual processing center of the brain, cf. the bodily exercises of yoga), a sequence of hard-edged Fischinger-like animations (accompanied by echoes of nostalgic music from the European cultural heritage) which serves as an ‘earthly’ preface to the dynamic energies and electronic sounds of the main body of futuristic, nuclear-cosmic imagery. Within this structure, Belson weaves a network of visual phenomena which refer back and forth to each other. The after-images from streaking figures or colour flickers — including the black circle described by the rolling, shrinking bar (which itself flickers appealingly in movement through a ‘hitch’ in our persistence of vision, the very foundation of cinematic illusion) become part of a network of positive/negative space/time phenomena — for which the meaning like the ‘unreal’ fluorescent colours in the off-flickering disc, are spontaneously generated in the mind of the viewer. Belson manages to integrate even the black’ silent [in Cage’s sense] spaces between his visual phrases, with dwindling after-images that lead to reflexive contemplation of the viewer/self as instrument vs. performer; and he interrupts some of Allures’ most sentient moments with raw reminders of the nature of the film’s material process — like the scratch into the film emulsion which appears (wittily accompanied by a giggle from the pop surfing song Wipe Out) during the black section that divorces the exercise-preface from the second, ‘earthly’ sequence, which in turn is echoed by a rough break in the film’s negative during the most intense activity near the film’s end, thus, like the cracks in raku pottery, keeping us from surrendering to the ease of formulated surface beauty.

Harry Smith, who shared the San Francisco Beat Generation and Art in Cinema background with Belson, also developed, separately from Fischinger and Belson, a mystical bent which manifested itself in a series of seven non-objective films; however, Smith’s are quite distinct from Fischinger’s. Belson’s and James Whitney’s in a number of basic ways. Smith is intensely involved with magic, alchemy and kabbala, and in the spirit of the Great Work, made his first films by painting and dyeing directly on the film surface (cf. Len Lye, discussed elsewhere in this catalogue) with remarkable intricacy and multi-layered conglomerations of shapes and colours that indeed seem like alchemical meldings. In his first film Smith uses some quasi-representational icons that recall the erotic and Tantric images of Ruttman and Fischinger. The other six films are purely geometrical. Film No. 2 and Film No. 3 are vivid batiks (colour applied directly to the filmstrip, but with tape, oil and wax used to layer and direct the pattern of the colours) with circular mandalas, intersecting grids and bars, and triangle-wedges piercing through the frame.

The richness and unique textured variety of colour, and the complexity of animation design (true frame by frame) is dazzling — more dramatic than anything Len Lye or Norman McLaren have done in similar paint-on-film technique — and rivals Fischinger’s intricate animation in films like Composition in Blue. Allegretto, Optical Poem and Radio Dynamics for which Fischinger used layers of cel paintings and complicated 3-D objects. Smith’s Film No. 4, in black-and-white, was made by moving the hand-held camera (this was the era of gestural abstraction) around static light sources (lamps and windows) to produce a sensation of their flying about in a void — very much like Fischinger’s black-and-white Studies in result if not in mode of composition, and foreshadowing Marie Menken’s and Stan Brakhage’s experiments with handheld camera in later decades. Film No. 5 (titled specifically ‘Homage to Oskar Fischinger’, and the only one of
Smith's abstractions still titled) combines colour footage similar to Film No. 4 with animated circles like those in Fischinger's Kreise. Film No. 6 was shot in anaglyphic stereo, the red and green colours signifying ending and beginning in alchemical lore (cf. Duchamp's Moustiques Domestique Demistock), and is similar to Film No. 7, which contains very intricate, multi-layered images rephotographed by repeated rear-screen projection to build up elaborate constructs reminiscent of Kandinsky's later geometric paintings, moving in a vibrant, organic, truly symphonic interlacing.

Smith exploits few of the optical-kinetic devices used by Fischinger and Belson (and the Whitney brothers), but rather relies on the overt painterly qualities of his imagery, much like Ruttmann in his Opus 2 and Opus 3 or, more directly, like Fischinger in his Motion Painting. However, Smith gains a reflexive perspective in the hand-drawn films by their very raw, non-photographed look (cf. Man Ray), and in Film No. 7, one of the masterpieces of non-objective cinema, the soft luminescence of the re-photographed images reminds us continually that we are watching a movie of a movie, like reflections in parallel mirrors, opening the aggressively flat screen into a conceptual infinity.

Apparantly Smith composed his non-objective films with no specific music in mind (although he was frequently inspired by Dizzy Gillespie's jazz), as pure visual 'music' with certain rhythms and phrasings inherent in the flow of imagery. He encourages people to play any compatible music along with the films, a freedom Hy Hirsh also planned for some of his abstract movies. This casual, aleatory approach to soundtrack seems entirely appropriate to Smith's rough, vigorous hand-made imagery, as well as his gestural camera work; however, one must demand silence if not some music as intricate and bewitching as the glowing veil of illusion Smith makes out of the rephotographed material in his last non-objective films.

After Film No. 7, Smith launched a second series of seven films, this time largely representational, surrealistic collages (cf. Max Ernst and Larry Jordan) dealing overtly with Buddhist and alchemical imagery. Looking at these delicate, precious, precisely symbolic cut-out films, clearly made with thousands of hours of purposefully directed, ritualistically controlled work, we are not only impressed with their wonderful, bizarre ceremony, but also reminded of the incredible looseness and visionary spontaneity of his earlier abstractions which surely required the same amount of labour to produce, but which seem by comparison like the impulsive and joyous sketches of an ecstatic revelation — very different from Belson's majestic (though no less joyous) vision.

II.

The romantic expansiveness of the Ruttmann tradition finds its parallel in the rigorous, classical films of Viking Eggeling and his successors. Though Eggeling's first film, Horizontal-Vertical Orchestra seems lost, we can judge from the surviving scroll drawings that it must have been substantially similar in concept to Diagonal Symphony, which, as I mentioned earlier, seems basically remarkably un-cinematic. While oriental scrolls with their flowing landscapes and sprawling adventure stories perhaps
approximate a long pan shot in film, implying a travelling viewer who wanders through an unfolding episode. The sequential images Eggeling [and Richter] drew on his scrolls usually imply only minor changes in essentially static objects — more like the viewer touring a one-man show of serial graphics.

In Eggeling's work, the 'drama' — the conflict of radically different elements and dynamic change — dear to Ruttmann and his tradition, seems almost entirely absent. Eggeling chooses only painting and music for his aesthetic role-models, and instead of the passionate Romantic symphonic music of Ruttmann, Fischinger and Belson, or the catchy organic jazz of Fischinger and Smith, or even the measured Baroque music of some of Fischinger, Eggeling obviously favored the restrained (albeit adventurous) and logical modern neo-classicism of Busoni and Stravinsky, or perhaps the rigorous atonal music and nascent 12-tone works of Schönberg and his Viennese school which were creating riots at Berlin performances during Eggeling's time.

In Diagonal Symphony we see on the screen a few given shapes, each of which performs basically only one gesture — either an expansion/contraction or an incremental revelation, sometimes with substitution or alternation of similar parts, almost like Dèco neon light displays. Within this spare given, Eggeling fashions a fascinating and prodigious event. The forms consist of compound, repetitive elements which function like chords in music — a comb-like object has three, then five, then seven 'teeth'; an aggregate of graduated curvilinear shapes appear and disappear (or rather are disclosed and concealed) one by one. Choral pairs of 'combs' and 'harps' grow and shrink in size, perfectly coordinated so that they imply an exchange of energy or a recession/approach in intensity, not just as in illusionistic visual perspective (for the static, centered image-field tends to remain firmly a pictorial surface) but as a sforzando or diminuendo in sound. Parallel forms and repetitive gestures suggest harmonies and rhythms, while the reversals and inversions of shapes recall musical variations, and the relative size and complexity of shapes implies alteration in musical volume, tone colour, and orchestral texture. But this musical analogy remains merely an analogy. Eggeling's image is absolutely and uncompromisingly a flat, framed, non-representational drawing which rejects and defies any musical accompaniment. It exists and performs aurally (but gloriously) in its own right, not referring to anything else, not even the cinematic process which seems almost incidentally its vehicle.

One wonders what kind of further films Eggeling might have made had he lived longer. Perhaps we can speculate by reference to some of the film-makers who seem to have taken parallel paths to Eggeling's.

It seems likely that Oskar Fischinger's earliest films, the Wax Experiments and Orgelstäbe, were conceived as series since half-a-dozen different versions of each survives, and certainly the 16 films in his later black-and-white Studies group constitute a formal series, each one tackling a slightly different visual issue (e.g., Studie No. 7 illusion of deep pictorial space, Studie No. 9 streaking afterimages, Liebespiel the eye movement of the viewer in relationship to the frame-edge, etc.) while the basic imagery and format remains largely the same. Fischinger also
planned to make a full series of colour Lichonter films (of which Komposition in blau was the first, and perhaps An Optical Poem can be seen as a second), and a full series of Motion Painting films. Fischinger may have derived this idea from Eggenberg (whom he idolized as Ruttman) since it seems basically antithetical to his own effusive and droll personality. Perhaps, then, Eggenberg might (like Mondrian in painting or Belson and James Whitney in film) have simply continued his Whitney brothers, growing up in Pasadena, a suburb of Los Angeles, were attracted to Fischinger’s visual inventiveness but rejected on theoretical grounds (like Harry Smith) his use of specific known music (which automatically suggests subservient illustration) and his reliance on traditional animation which requires an enormous gap of time between conception and realization of work and finally seems too dependent on traditional painting as opposed to cinematic potential.

Their series of Five Film Exercises (1943-4) successfully overcame all these problems while producing, perhaps because of this aesthetic caution, one of the most radically original audio-visual manifestations ever devised. John's interest in music, especially the influence of Schönberg (who was then resident in Los Angeles) and James' interest in graphics combined to formulate a serial composition, in the tradition of Eggenberg's and Fischinger's series, with each Exercise offering a subtle new variation on the same basic materials. The sounds were composed with an elaborate pendulum mechanism invented especially to 'write' out in a controlled fashion synthetic sounds, which we now have come to recognize as electronic music, but which at that time, before the perfection of recording tape, seemed revolutionary and shocking. The visual images were equally astounding, for they recorded, for the first time, pure direct light (regulated, formed and transformed by mattes and masks) rather than the reflected light usually photographed from drawings or other objects. The visual imagery is as rigorous and refined as Eggenberg's, but considerably more dynamic and cinematically conceived, with large, hard-edged simple geometric shapes gliding in and out of focus, flickering, modulating one into another, clustering in layers and overlapping to add their glowing, neon-like colours together. Every inch of the screen is planned as part of a field of action, and each gesture or motion choreographed for a specific optical effect and a specific structural trope. The visual composition, like serial music, is constructed of themes and variations, inversions and clusters, but the nature of the optical phenomena — flickers, alternating figures and reversing colour balances etc. allows unexpected (for the viewer!) subtleties and dynamics, so that a shrinking object may once evoke a deep-space perspective and a few moments later aggressively refuse to be perceived as anything but a shape decreasing in size on a flat pictorial surface. The soundtrack is equally and similarly complex and subtle, while the rapport between music and visual image is marvelously involved and continually intriguing — sometimes pulling into precise synchronization and other times interacting in dramatic counterpoint.

After this monumental masterpiece (recognized by a major prize in the first Brussels Experimental Film Competition, 1949), the two brothers began working separately. John pursued his interest in music and technology through, among other things, a series of films made in real-time photography of calligraphic gestures through layers of coloured oil (the same oil-wipe technique employed by Hy Hirsh in his Classe des Touches) to precise synchronization with jazz and classical music. Then he took up important pioneer experimentation with computer graphics. John finds in the computer an instrument through which he can relatively quickly compose more complicated imagery than he could easily execute by hand, and in his later films — Osaka, the Matrix series, and Arabesque — he has explored theoretical musical and mathematic issues like harmonics and the relationship between certain architectonic, ornamental motifs and the gestures or transformations implied by their variations (cf. Fischinger's Studie No. 11 and Ornament Sound).

One of John's best films, Matrix III, is a pure loop, beginning and ending with the same image — a black-and-white scene of tiny 'circles' (later seen to be the tops of hexagonal cylinders) circulating around a Lissajous-curve loop-circuit (the matrix). John makes this matrix-circuit play a major rôle in the film by the after-image streaks of the moving figures. The first scene after the titles shows white hexagons of graduated sizes circulating around the matrix, but now the diversity in dimensions and over-lapping of the hexagons creates an M.C. Escher-like illusion of constantly changing structures full of improbable corners and perspective lisions. In later sequences, triangles and ribbon-like alignments of parallel vertical lines perform around the same matrix, each creating an entirely different sensation of movement and an individual type of harmonic configuration — e.g., the triangles appear to change size or recede as they move and overlap to form illusionistic harmonic pyramids, while the 'ribbons' of lines seem to 'drip' and surge like water as they move. Each primary geometric shape — circle/point, line, square, and triangle — functions like a variation on the given matrix theme, and at some points John uses long dissolves to emphasize the arbitrariness of the variation. Each sequence is seen first in black-and-white, and then in one or more primary colours which act as non-decorative elements in a variation and thus serve to heighten our contemplation of the theoretical issues involved. The soundtrack music by Terry Riley, though somewhat lusher in orchestral texture than the corresponding purist visual imagery might imply, is based on a comparable principle of looped constituent units and quasi-aleatory harmonics so it provides a suitable meditative background.

James has spent the 34 years since the Film Exercises working on only five films: Yantra, Lapis, and a recent trilogy, Dwiya (an introductory invocation-logo, related to the Ouroboros in the earlier films), Wu Ming, a film which is nearing complete at the time of this writing (Spring 1979), and a third film which is completely designed but not yet in active production. Throughout these films, James has maintained the exacting discipline visible in Eggenberg and promised by the Film Exercises, while at the same time managing to incorporate some of the ravishing sensuousness associated with Fischinger, Belson and Smith, which makes his oeuvre perhaps the supreme
achievement of this genre of film-making.

Like Fischinger, Belson and Smith, James is deeply involved with mystical, spiritual and speculative-scientific issues. For Yantra and Lapis, he reduced the basic materials of the films to the dot and the pure colour frame—the smallest (and largest) unit of perception in pure graphics, but also the aether of Hindu/Buddhist and alchemical theory. Out of these minimal building blocks, he carefully constructs some of the most splendid and awesome but transcendentally reflexively involving of sequences.

‘Yantra’ means ‘machine’ in Sanskrit, and though usually implying a meditational aid (like a mandala, rosary or prayer wheel) may also refer to the Great Cosmic Machine—the elemental manifestations of energy which fragments, coalesces and seemingly differentiates to produce the illusion of our visible world. James’ film answers to both these criteria, for it induces and aids a meditation on the nature of reality and the generation of matter—which can as well be contemplated in a scientific framework as fertilization/cell-division or nuclear fusion and fusion, or in the alchemical context as the boiling up of the elements in the Grail. Or—and this is crucial—as a purely aesthetic visual communication divorced from any extrinsic knowledge.

The repeated accelerating flickers between black and white or solid colour frames photo-kinetically induce an alpha meditative state. Into the climax of these generative alternations of spectral opposites, the dots enter and enact movements which are as carefully ‘choreographed’ in the sense of purely visual ‘music’ as had been the imagery in the Film Exercises, including variations, inversions, harmonic and contrapuntal balances and imbalances, etc. The screen is scrupulously sustained as a flat expository surface, and a reflexive consciousness of the film material process is maintained by the use of flickers, transparent/white backgrounds, scratches, and solarized, step-printed episodes, in which the hand-wrought, irregular textures also recall both James’ expertise as a raku potter and the alchemical processes of transmuting elements, in this case the coloured chemicals of the film emulsion by the ‘solar’ fire.

Similarly Lapis, meaning ‘stone’ in Latin, refers to the Philosopher’s Stone or transmutation medium in alchemy, and is ideologically related to Jung’s discussion of the individuation process. But no knowledge of these outside frames of reference is necessary to appreciate the intricate and resplendent imagery. Again the film functions perfectly in purely aesthetic terms. The imagery is completely, conscientiously devoted to centric, circular patterns (like yantra-mandalas) and the film itself suggests a cyclical structure, beginning and ending with transparent white screen surface onto which the dots converge and from which they disperse, while vigorous flickers between pure red and green frames herald the opening union of particles into a patternillusion and the closing division of the pattern into parallel manifestations, implying, like the repeated Ouroboros logo, a continuing reoccurrence of the phenomenon. The red and green colours (associated with beginning and ending in alchemy, cf. Smith’s Film No. 6a) and the colors in general are precisely controlled as a factor of meaning in the film. Parallel rasters of dot patterns in varying colours are superimposed in many scenes to create, in a divisionist fashion, the effective or
compositional configurations which refuse to blend (e.g. orange and green). However, in some scenes James even manages to superimpose red and green dots to yield the purplish pure colour (associated with the union of positive/negative yin/yang to produce fresh vigour, royal/power, occult wisdom, etc. in Hermetic thought) which appears as a pure hue in some other scenes. Another ‘effective’ colour frequently used in the film is the celestial blue, which is carefully planned to endure throughout a long sequence so that when it suddenly vanishes to black, the red/green lotus wheel seems to float in a field of radiant (union/vigour) magenta because of the after-image from retinal exhaustion.

This positive-negative colour afterimage relates directly to the central theme of the film, in which most gestures and manifestations repeat in positive and negative states — e.g. the ring of dots converging on a white vs. later a black field; the dots forming a positive-space function by aligning in rows, chains or progressions vs. a negative-space pattern by enclosing and describing implied configurations.

James worked on Yantra for about eight years (1950-58), meticulously painting the patterns of pin-point small dots on paper cards, and hand developing and solarizing much of the footage. Although Lapis was executed in only three years (1963-6) with the aid of a computer, it cannot be considered a computer-graphic per se, since the images were planned and hand-painted (exactly like those of Yantra, but on cel sheets) and the computer was merely used to ensure the accuracy of animation where hundreds of tiny dots must be precisely superimposed and moved in infinitesimally small graduations. James provides an alienation from this astonishing technical perfection by including several momentary ‘flaws’, like a fleeting freeze in the action or a flash-frame from the beginning of a dissolve (again suggesting the cracks in raku ware).

Both Yantra and Lapis were conceived as silent films. Yantra received its soundtrack when it was shown in one of the Vortex Concerts; Jacobs and Belson mixed portions of Dutch composer Henk Badings’ Cain and Abel to form an uncannily appropriate and exciting musical counterpart to the images. The lack of exact synch and the relative obscurity of the original score (which has never been available on a commercial recording, I believe) rescue Yantra’s track from the problematic status of other ‘found’ music for non-objective films. Lapis’ Indian raga track was added after it had already been distributed as a silent film, at the behest of James’ distributor, Bob Pike of the Creative Film Society. Again, the original musical score was blended to form a satisfactory accompaniment to the images, and its re-release in this sound version, coincidentally just before the Beatles-inspired vogue for Indian music, helped contribute to Lapis becoming the most widely known and admired of any abstract film. However, as any silent viewing will show, perception of the visual meaning of the film can be enhanced without the music, and James plans in the near future to withdraw the current version and re-issue the film either with sound prepared specifically for it, or as a silent film.

Working with the computer on Lapis proved quite frustratino for James, since he found the potential of the machinery more limited than his imagination. Therefore, after Lapis, even though he had specific ideas for further films, James rested from filmmaking for several years, and concentrated his efforts on producing raku-ware pottery. Then he began work on a trilogy — of which only Dwi-Ja and Wu Ming are completed — which is a sublime expression of his spiritual and artistic maturity.

Dwi-Ja, meaning ‘twice-born’ in Sanskrit, runs almost a half hour at silent speed (although, at the time of this writing, James has been working on a possible soundtrack for the film). The idea for the subject-matter grew out of a dream, and James’ spiritual researches, and even from watching the firing of his raku pottery in his kiln. Throughout the film’s duration, we actually see only eight sequential drawings of alchemical vessels, each containing a depiction of a bird in a slightly different position — the eagle whose upward and downward flights symbolise the repetitive processes of sublimation, solution, conjunction, separation, etc. which constitute the purification/transformation rituals of alchemy. A basic loop of this eight-drawing sequence repeats continually in different combinations, for most of the film is solarized, and the imagery is superimposed in several non-synchronized layers through re-photography by rear-projection, sometimes one layer purposely out-of-focus to provide a kind of ‘halation’. These purely filmic processes mirror the alchemical formula of repetitive distillation as a refining means to transmutation, but the purely filmic processes also fully re-create and enact in their own terms those alchemical methods, so that no prior knowledge of the hermetic tradition is necessary for the viewer. The loop of eight drawings establishes a minimal structure, while the aleatory effect of the solarization and non-synchronized juxtaposition of loops provides a flame-like ambiguity and vigour without destroying its basic simplicity.

Wu Ming (‘No Name’ in Chinese) is more diverse in imagery but the lucidity of its separate gestures is such that it functions in quite a pure a manner as Dwi-Ja. The opening sequence shows the Chinese characters (from the Tao Te Ching) reading ‘No Name is the beginning of Heaven and Earth’, rivalistically repainted in varying colours as in Yantra. The film (like Dwi-Ja, almost a half-hour, silent) shows only two basic gesture—a sequence in which dot patterns (again solarized and re-photographed) move in bold horizontal and vertical streaking alignments, often resembling churning and flowing drops of water, and another sequence in which concentric circular waves radiate, undulate and pulsate out of a white centre. The transition between these two primary manifestations of energy,

Composition No. 4 (1945), in stereoscopic 3-D makes the most complex and inventive use of abstract pictorial depth of any of the non-objective stereo films. Grant uses mostly squares which mirror the film’s image-shape, so that their movements in size and ‘space’ constantly create a special tension against the basic film illusion. The squares and sets of bars that help delimit them sometimes flicker with slow deliberation and press backwards and forwards in careful rhythms, while a streamlined ‘snake’ occasionally intertwines itself through and around the rectangular forms to heighten the force of the illusion.

All of the Compositions are silent, as Grant believes in
the independent validity and vitality of the potential directions of non-objective visual structure, a subject about which he wrote an extended essay in 1948 under a Guggenheim Foundation grant, but which he finally abandoned, finding much of the visual information basically unsuited for verbal explanation.

One of Grant's most interesting and important films is *Color Sequence* (1943) which consists only of pure solid colour frames that fade, mutate and flicker. He made the film as a research into colour rhythms and perceptual phenomena, and although it now appears not only visually exciting but also as a precedent for the work of younger film-makers like Paul Sharits, Grant himself found the film to be too disquieting when it was first screened (cf. the *Film Exercises*), and it received little further play until the 70s.

The Eggeling tradition of classicist visual music had yet another pioneer practitioner whose work, however, remains largely a curiosity. In 1939 a Swiss painter Blanc-Gatti made a five-minute film *Chromophanie* based on the principle that each tone of music ought to have a single, consistent corresponding colour in the spectrum. His animation, tightly synchronized to a gladiators' march, closely resembles Fischinger's Art Déco designs for *Allegretto* (which the Swiss artist could not have seen), but the insufficiency of Blanc-Gatti's theoretical assumption is mirrored in the film's poverty of movement: a stylized trumpet may emit a ray-wedge of red, but after that it often has nothing else to do. Music has depths Blanc-Gatti was unable to deal with, but his film is amusing and interesting none the less, since this concept of a correlation between auditory and visual tones has occurred to many artists, though few have confronted it quite so directly.

Later followers of the 'Eggeling tradition' probably include film-makers like Robert Breer, the Conrads, Peter Kubelka and Paul Sharits (discussed elsewhere in this catalogue) particularly in reference to their more abstract work. One young American artist, Larry Cuba, is able to programme his own films on a computer, and perhaps because of this intimacy with the numerical system, he has produced films, like *First Fig* which allow simple geometric forms to modulate, overlap and interface in clear and complete sequences that unfold at a generally serene tempo, delighting by the parity of their mathematical cadence.

A young Frenchman, Jacques Haubois, prepares non-objective film performances, using his own painting and photography for imagery, but pressing them through a complete range of purely cinematic transformations that create keen reflexive sensations in the viewer. *Eclamorphoses*, for example, lasts one and a half hours; it balances a loop of sound (by La Monte Young) with loops of visual material derived from re-photographed slides of amorphous painted abstractions which are carefully and systematically permuted by super-impositions, scratches, punctures, slices, reticulated paint-on-the-film-strip, stop-printing, changes of projector speed, and finally zooming of the image with the projector lens and live manipulation of the projector and light beam (with a hand-held prism), particle and wave, takes the form of an audacious, absolute visual statement: a rich, complete spectrum of colours has possessed the dots in the particle sequence, with saturate reds flaring through yellow to settle in celestial celadons, lapises and turquoises which are pierced by creamy white shafts of light that open in turn to reveal even whiter, purer projector light.

While viewing these first scenes, we are simultaneously aware that the basic, original footage used to create the imagery begins, as in *Dwi-Ja*, with a loop of a very simple, minimal image — in this case, dots in a circular arrangement which varies from frame to frame in the graduated size of the circle — and that the illusion of 'vertical shafts of light' is being created not only by multiple exposures, solarization and 'halation', but also by some kind of literal vertical streaking of the image that suggests pulling the film-strip through the gate, and hence arouses a reflexive awareness of the film-making/projection process.

Parallel horizontal cluster-alignments of bluish-white dots cascade down and up a blue-black field, and streak and blur to suggest force fields that magnetize and materialize between them a third alignment of brighter white dots. Then white corners begin to appear on the screen, and slowly a white circle closes around the blue-black imagery, constricting it till it flutters out and fades to pure black. For some five minutes the black circle implodes, diminishing in size until it disappears. The slowness of this pure gesture is staggering; it admits no sensations of depth-perspective, no seductive comforts of painterly ingenuity (albeit the smoothness and precision of the shot was certainly not easy to contrive). With deliberate grandeur the black dot dwindles — a spot of no-light in the projector beam, a particle merging with the white oneness, a shape contracting into nothingness, an emptying. The black spot becomes a focus of perceptual illusions assuming an iridescent white glow from retinal fatigue charts and aggressively charts the tiniest eye-movements with luminous 'white' auras and roving 'white' after-image dots. The process of emptying/filling the screen is so absolute that when, after a moment the circular waves begin to pulsate outward toward the corners of the frame, we accept their beauty and the beauty of the glowing 'white' centre of the image (pure projector light) they reveal and outline in a completely fresh perceptual framework. The duality of yin/yang has undergone a union in visual terms, inside our eye/minds, and our sense of vision (and aesthetics) is cleansed and amplified by it. James describes the particle-to-wave action in *Wu Ming* as being like throwing a pebble into water and seeing the ripples spread out (cf. Basho); the clarity, lucidity, balance, directness and purity of his filmic gesture is a radiant revelation that echoes and expands inside the spirit into which it is cast through the vision.

Dwinell Grant, a film-maker who worked in New York during the 40s in relative isolation from the film-makers discussed above, composed a series of films which stands as a substantial contribution to the literature of non-objective film. With a background in abstract painting, Grant began making films as a result of experiments with stage production at Wittenberg University in Ohio. His first film, *Composition, Themis* (1940) uses circles, squares and line/cylinders of glass, paper and wood moved over several layers of glass plates, lit in complex fashion from all angles with different coloured gels and moving light sources, so that the textures, shadows and changing forms of the relatively static objects become the major factors in the 'action' of the film. Grant's sensitivity to the density and
luminosity of light as a compositional element also distinguishes his four later Compositions (1941-1949, New York) even though he worked with flat drawings, cut-outs, static background paintings, and other less tractable animation techniques in these later films. Each of Grant's Compositions is constructed with great awareness of the principles of non-objective visual organization as it had been practiced and discussed by the master painters such as Kandinsky, Klee and Mondriaan. Even in Composition No. 2, Contathemis (1941), where he seems consciously to use drawn figures that recall alternately the shapes used by Ruttmann, Eggeling, Fischinger and Richter, Grant combines these figures in such fresh juxtapositions, with such a subtle manipulation of structure, density and rhythm, that they are manifestly allusions integral and unique to Grant's personal idiom and discussion.

III

Non-objective film performance with modulated or multiple projectors is not, of course, new, and a variety of colour-organ and other analogous performances is discussed elsewhere in this catalogue. In general, however, such performances aim toward a proliferation and multiplicity of image that brings them rather outside the ascetic tradition of Eggeling or Haubois.

We know that between 1923 and 1926, Fischinger worked together with a composer, Alexander Laszlo preparing visuals (including films and slides) for a colour-organ concert called Farblichtmusik. Unfortunately little information survives indicating the way in which Fischinger's visual materials were composed, but two newspaper articles (June 1926 and January 1927) report that Fischinger performed three 'light shows', Fieber, Macht, and Vakuum, with multiple projectors at least in his Munich studio. Again, the accounts fail to indicate exactly how he manipulated the projectors, whether superimposing the images or arranging them in various configurations. No specific or consistent print of this 'light show' material survives, though numerous tinted fragments and some painted glass 5" x 7" slides undoubtedly belong to these performances. Evidently the difficulties of equipment and performing, coupled with the uncooperativeness of theatre-owners discouraged Fischinger (as they have many other film-makers) and he did not pursue multiple projection later in his career.

The mysterious Hy Hirsh apparently preferred to perform even his single-screen films live with various soundtracks and visuals re-edited for each specific programme. We know that he prepared at least two films for double projection — Double Jam (ca. 1955, probably an oil-wipe film with jazz track, but no certain or consistent print is currently known) and Décollages Recollés ('Unglued things re-glued'), of the late 50s, perhaps a blanket title for re-edited collage performances, but one surviving print seems to be marked for double projection, with purely non-objective imagery on one screen and mixed abstract and representational footage (scratched, painted and optically-printed, as well as pure 'found footage', e.g., a colour shot of an A-bomb blast which turns into fireworks, early Chaplin comedy, etc.) on the other.

Unfortunately, again, we have little evidence as to Hirsh's mode of projection, largely because of the poor condition of his estate. He was born in Chicago in 1911, and starting in 1937 he participated in representational experimental films in Los Angeles and San Francisco as an actor and cameraman. He was a professional still photographer, and his work took him to New York, Spain, Holland, and Paris, where he lived in the late 50s and died suddenly of a heart attack while driving through the Place de la Concorde. Apparently he had trafficked for some time in marijuana and hashish, and the police seized all his personal effects (including what films were left after friends had removed what they could, since he stored the dope in film cans) from his Paris apartment as evidence. By the time the affair was settled and the films returned to his daughter in Los Angeles, and then to the Creative Film Society which had purchased rights to the films, the remaining prints and papers were in an extremely depleted condition. No print at all has been found for several films listed by title in programmes (Change of Key, Djinn, Recherche, Double Jam), while incomplete or silent prints only were found for several others (Eneri, La Couleur de la Forme), and no proper printing materials for any of the films was recovered. The attempts of Bob Pike of the Creative Film Society to restore the films led to even further confusion in some cases — linking the extraordinary visuals of Couleur de la Forme (if indeed these visuals belong to that title, since the original was not labeled) with a completely inappropriate soundtrack, and including a film actually by Baird Bryant and Tajiri Shinkichi, Mad Nest, among Hirsh's oeuvres (because Hirsh, who roomed next door to Bryant and Shinkichi in Paris, owned a print of the film — which has no titles).

What emerges from the remains of Hirsh's estate is quite inconclusive. One group of films is abstract, loosely synthesized to music, employing oil-wipe (Chasse des Touches) and oscilloscope patterns (Divertissement Rococo, Come Closer, Eneri) optically printed sometimes in multi-screen configurations. Another group includes beautiful live-action footage nicely edited for rhythm and visual continuity (Autumn Spectrum, Défense d'afficher, Gynomorphosis). A third group is complex optically printed collages (La Couleur de la Forme, Scratch Pad) involving matting, high-contrast colourizing and texturizing, step-printing, and other technical devices already exploited by Len Lye (who is discussed elsewhere in this catalogue). Scratch Pad also includes scratch/paint-on-film footage, while both Scratch Pad and La Couleur de la Forme contain manipulated 'found footage'. And the silent copy titled Décollages Recollés (mentioned above) contains elements of all the other films.

Dating the films proves difficult. Friends in Paris (ca. 1957) recall that Hirsh built an optical printer in his apartment there from essentially junk parts — he was a marvelous tinkerer and mechanic — but this does not mean that he did not have one before in America. Gyromorphosis won a prize at Brussels in 1958. Jordan Belson used some of the abstract oscilloscope footage in the Vortex Concerts (1957-9) but never saw any of the optically printed representational footage. It is tempting to align the films in a 'logical' order: abstract films first, then simple live action, then complex, composite imagery optical printing last — but this may well be false, since Chasse des Touches, Come Closer, and Eneri are optically...
printed into multi-screen sections, which is technically as difficult as the more subtle and spectacular work in La Couleur de la Forme.

The aesthetics of the films are equally confusing. We know Hirsch liked to 'perform' his films live, re-editing them specially for each programme. Some of the current prints — Autumn Spectrum, Défense d'afficher, Gyromorphosis, Chasse des touches, and Divertissement Rococo — are quite smoothly edited into 'finished films', and they present a very mellow sensibility, the epitome of the cool jazz world of the 50s. Come Closer, in polaroid stereo 3-D, is quite accomplished and well-integrated, with oscilloscope patterns twirling in festive arrangements that recall carnival decorations, while Jamaican music supports this mood; the depth sensation is pleasant and striking, with many figures choreographed to move in appropriate rhythmic pulses that exploit a forward-backward alignment, while other figures (notably a set of bracelet-like circles), through the magic of optical printing, intersect and move through each other in a delightfully impossible way. Eneri, Scratch Pad, and La Couleur de la Forme display a high degree of technical inventiveness; though Eneri and La Couleur seem somewhat unclear in structure (perhaps due to fragmentary print condition), Scratch Pad ranks as one of the best scratch-on-film works, using abstract paint-on-film and live action footage, and in both cases scratching over what are revealed to be the energy centres of the movements.

Hirsch re-uses similar footage in several films (flights of birds, fireworks, parades, multi-screen configurations, certain oscilloscope figures, bodies of models mated with abstract textures and representational scenes inside them, etc.) clearly in an attempt to construct a compositional series, but it is hard to judge the result of the serial arrangement with the films in their present condition. As it is, the only overall impression one gets from Hirsch's films is not of a highly intellectual or mystic thinker (like various other film-makers we have discussed) but rather of an individual with tremendous dexterity and inventiveness, of considerable joie de vivre and a sensibility for mellow, charming experience.

Jordan Belson's Vortex Concerts in the late 50s specifically established the tradition of the psychedelic multiple-projector light-show, which blossomed in the late 60s as part of the 'Hippy' revolution in San Francisco (with film-makers like Bruce Conner, Ben VanMeter, Robert Nelson, Jerry Abrams and Scott Bartlett participating in various shows), Los Angeles (where Single Wing Turquoise Bird included Sam Francis, Jeff Perkins, Peter Mays, David Lebrun, Mike Scroggins, Jon Greene, and other groups such as Thomas Edison, The Hog Farm, and John Whitney's sons performed), and New York (Andy Warhol's Exploding Plastic Inevitable, and Stan Vanderbeke, among others). Laserium Concerts continue to be performed in planetariums throughout the world during the 70s. However, the visual quality of the 60s light shows — which, with the support of the Rock music boom, were able to sustain 25 or more projection devices and a dozen performers for an event — is unlikely to be seen again. These rich collaborative performances were often governed by aesthetic principles that valued the uniqueness and irretrievability of each event. Many of these light concerts — which included a sizable amount of pure non-objective imagery, and which often ran from silence and minimal, still imagery to unbelievable symphonic riots of sound and controlled multiplicity — were among the most complex and rewarding art experiences of our age, but inevitably they must join the Dada seances in becoming the anecdotes of the privileged few.

IV

The 'Second Generation' of non-objective film-makers ranges far beyond the handful of film-makers discussed here. Programmes I have seen from the 40s and 50s list more than 30 abstract film-makers (excluding student work) hailing from all parts of the United States and South America. While all of these people made more than one abstract film, few pursued non-objective work with the dedication of the Whitney's, Belson and Smith. A number of the film-makers and their films seem to have 'disappeared' and other films which are still available seem, on the whole, primitive and uninteresting.

One more interesting figure of the Second Generation is Jules Engel, who had practiced non-objective painting since the 30s, and been involved in representational cartoon animation since working for Disney on Fantasia, where he came to know Fischinger. During the 40s, Engel, in his role as painter, also knew Man Ray and was familiar with Duchamp's work through the Arensbergs and their remarkable collection. However, Engel continued with representational film work (including cartooning with UPA, etc., advertising films, and several documentaries on painters and sculptors) until the late 60s when he began to produce a series of a dozen non-objective animation films. Some of these (like Silence, a computer-graphic from 1968) exhibit a keen conceptual sense of balance of form and ideation, and others (like Shapes and Gestures, 1976, and Wet Paint, 1977) breathe a charming grace (with Hirsch's 'cool jazz' sensibility), a vigorous decorative quality (reminiscent of Kandinsky, Miró and the Abstract Expressionists of the 50s) and technical mastery, which make us regret that he did not devote more of his early career to non-objective animation.

The purpose of this essay has been to follow strictly non-objective film-making through the 'Second Generation'. No attempt has been made to cover exhaustively the younger abstract film-makers — those, for example, involved with computer graphics, like Lillian Schwartz and Doris Chase — or to deal at all with the complex issue of truly 'abstract' film-making involving mixtures of live-action and non-objective footage, or representational imagery used out-of-context for its purely graphic qualities — e.g., Ballet Mécanique, Chomette, Dulac, Film Studie, etc. or the Man Ray/Brakhage/Ion Rubin film material tradition. These issues, along with the work of Duchamp, Len Lye, etc. are covered elsewhere in this catalogue.
1 If one looks carefully at the ‘fragments’ of Rhythm that Richter supplied, one can see that the incompatable diurnal-compositions at the end of so-called Rhythm 21 belong directly to the beginning of so-called Rhythm 21, and are, quite aside from spoiling the alleged formalism of Rhythm 21, probably indicate that the film(s) we now see labelled Rhythm 21 and Rhythm 23 are actually one film Rhythm made in 1923 or 1924, except for the very brief shots of Egelinger-like scroll drawings that constitute the Film is Rhythm which Richter shot around 1921 and which Van Doesburg screened in Paris for the critic who missed seeing the film because he took his glasses off to clean them.

2 For a general introduction to these ideas which are so important to many non-objective film-makers and painters, see Fritz Kapra’s The Tao of Physics (Stamhala Press, Berkeley, 1975).

3 We are using here the numbering system from the current New York Filmmakers Co-operative catalogue and P. Adams Sitney’s book Visionary Film (Oxford University Press, 1974) pp 270-1. However, be aware that in earlier documents various other numbering systems are used. For example, in what are probably the original documents, the Art in Cinema programme for October 24, 1947, lists the world premiere of a black-and-white film numbered 21 and titled Foot Truck, which, it says, is ten minutes long and ‘synchronized’ to sound. Though Smith’s only current black-and-white film (Film No. 14) is shorter in its present state, the programme note probably refers to the same film, since Smith may have edited a special projection copy (as Hirsch often did) with some repeats to correspond to various verses or recaps in the music — which was perhaps Dizy Gillippe’s ‘Maneca’. On this same programme note, it says that Smith’s colour films, originally scheduled to be shown, had not returned from the laboratory where 16mm reduction copies were being made, but promises that they will be shown at a future screening; then, a week later, October 31, 1947, the programme note (signed by Smith himself) lists the premiere of an untitled film numbered 6 (with no indication of colour or length), which it groups together with Man Ray’s Le retour à la raison and sculptor Robert Howard’s Menu (which was photographed from swirling coloured liquid), saying that ‘Number 6 has utilised forms assembled purely for their plastic value, but in this case [as opposed to Man Ray and Howard] the artist has limited himself to geometric shapes which follow their own characteristic developments and motions’, while, by contrast, Jorcan Belsa’s first film Transformation, which was also premiered on the programme, is described as containing ‘forms created by the artist’. — so perhaps this film represents the coloured lights now included in current Film No. 3, Circular Tensions, or another live-action film now lost. In a subsequent series of Art in Cinema, we find the February 11, 1949 programme listing Smith’s Films No. 1 and 4 (dated 1949, as if they had just been finished), and from the description it is clear that while No. 1 corresponds to the current Film No. 1, the No. 4, a batik film, is either (or both) the current Film No. 2 and (or) Film No. 3. Smith says about them: ‘Types of movement employed have also [in addition to colours] been limited to the smallest possible number so that whatever interest and sequence the film possesses depend on the rhythmic recurrence of a few specific non-objective tensions rather than curiosity on the part of the spectator as to what the forms are going to do next.’ The Art in Cinema programme for May 12, 1950 lists four Smith films by title only: A Strange Dream (the current Film No. 13, Message From the Sun (the current Film No. 2, which Smith says in the Co-op catalogue ‘takes place either inside the sun or in Zurich, Switzerland’), Circular Tensions (the current Film No. 5), and Interwoven (by elimination, perhaps current Film No. 3, since current Film No. 4 was called Foot Truck). For this screening the four films were accompanied by a live six-man jazz band. Also, the programme notes state that Smith was already working on his 3-D film (currently Film No. 6) under the auspices of the Guggenheim Foundation. Smith’s re-numbering and re-dating of his films undoubtedly relates not to any desire to fraudulently claim some innovation or precedence, but rather to a kabbalistic alchemical desire to align his ‘Great Work’ in proper numerical and elemental order (e.g. two cycles of seven films, etc.; of also Kenneth Anger’s seasonal re-arrangement of his Magick Lantern Cycle).

4 The term ‘romantic’ can cover a multitude of eccentricities, so more filmmakers can probably be seen as belonging to this tradition than any other of the most strictly non-objective ones. However, one can note several trends, such as the various filmmakers overtly devoted to musical illustration (Mary Ellen Bute, Oskar Fischinger’s younger brother Hans Fischinger, the Disney studios, Norman McLaren, etc.) or filmmakers who are extremely interested in techniques and their filmography after its production according to emotional principles including an older film-maker like Douglas Crockwell, and most computer graphic artists currently working, most notably Stan Vanderbeek and John Stehara, who mixes his non-objective graphic with psychedelic live-action footage in a highly lyrical, emotional way. Among younger filmmakers, Dennis Piec (who has worked in delicate pastel drawings that slowly merge with each other through dissolves) and Adam Beckett (who optically prints his elaborate hand graphics in such a way that they rival the complexities of computer-generated imagery) seem especially worthy of note.

5 Norman McLaren’s Now is the Time and Around is Around, Fischinger’s Stereo Test, Smith’s Film No. 6, and Hirsch’s Some Clover, all ca. 1950.

6 See Film Culture No. 58-59-60, pp. 43-5, 36-7, and 91-9 for further details.
Filmographies 1910-40

Francis Bruguère
1879 Born in San Francisco
1906-19 Began career as photographer and painter in San Francisco
1914-27 Worked in New York
1928 Moved to London
1945 Died in London
1923-25? The Way (unfinished)
1930 Light Rhythms 5 min (with Oswald Blakeston)
1933 Empire Builders are Empire Builders (with Francis Bruguère)
Illustrations of score of Light Rhythms found in Architectural Review, March 1930, vol. 67, pp. 154-155

Janusz Breski
1907 Born in Warsaw
Studied at the Pozner Kunstgewerbeschule
1932-4 Co-founder of the Cracow Studio for Avant-Garde Film-SPAF
Interested in film, photography, and photomontage
After World War Two, editor of graphic publications
1957 Died in Cracow
1933 Beton (with Kazimierz Podsadecki)

Luis Buñuel
1900 Born in Calanda, Spain
1926-27 Assistant to film-maker Jean Epstein in Paris
1928 Began film career with the sensational impact of Un Chien Andalou, continued as director of feature films in Mexico, France and Spain

(selected filmography)
1930 Un Chien Andalou (with Salvador Dalí)
1930 L’Aigle d’Or (with Dalí)

In 1929 I entered the Surrealist group of Paris. Its moral and artistic intransigence, its new social political field, fit in perfectly with my temperament. As I was the only moving picture person in the group I decided to take the aesthetics of Surrealism to the screen. That same year I asked my mother for $2,500 to make my first cinematographic experiment. Only she would have financed an idea that seemed ridiculous to everyone else. My mother gave me the money more out of love than understanding of my venture, which I was careful not to explain to her. Thus I produced my first film, which was at the same time the first

Oswald Blakeston
1907 Born in Weybridge, Surrey
1927 Began career as film-maker, film critic, script-writer, novelist, poet, painter
Continues to work and live in London
1927 I Do Like to be Beside the Seaside
1930 Light Rhythms 5 mins (with Francis Bruguère)
1931 Empire Builders are Empire Builders (with Francis Bruguère)
1932-3 various advertising shorts

Light sweeps the screen slowly. The darkness of the screen expands and contracts; that is another way of looking at it. Light becomes complicated: defined forms merge while pattern is lifted (by light) off pattern. Diagonals and horizontal lines are at war, are part of a machine working in perfect control. Forms come back and are recognised: light peeps from behind light. That is the first movement of the continuous light movements. Only for a moment is light still, when it pauses, like the brilliant butterfly on the edge of a flower, before darting off to trace fresh arabesques in the crystalline air.
Throughout the rest of the film speed follows quiet, boldness balances indecision. Light takes wings, flutters breathlessly across the screen; light takes the shiny scales of a fish, and swims, in blues, beneath the sea of the theatre; light is banished from the screen, a small triangle alone remaining, and returns to not over the black spaces; light becomes thoughtful, building cones and pyramids, stating their outlines boldly with the clarity of a Euclid, then juggling with them like a spangled lady on the music-halls; light is held like a sword, to slash; light becomes rotten, like a medlar, and dissolves in its own sweetness.
Technically, if one must be technical, here is something worth saying: made without actors, sets, or money. Technically, here is a new technique. Close-ups are not cut in, a beam of light sweeps them into prominence, leaves a section of the screen hung by chains of its rhythmic swing. Cross cutting means nothing when light is a fluid. Scenarios are felt not written, are drawn not written; the roll of film is a rocket to burst in stars in the night. It is something so much more poetical than anything in the concrete cinema; a promise and a fulfilment.
There is a breath of the same spirit in Bruguère’s stills, but conception is governed by different possibilities. Trivially one might finish: I would rather admit there is no end to this question.

Oswald Blakeston from a description of Light Rhythms in Close-Up Vol 6. pp. 226-227

Anton Giulio Bragaglia
(see Futurism)
Surrealist film, entitled *Un chien andalou*.
It is a two-reel short in which there are neither dogs nor Andalusians.
The title had the virtue of becoming an obsession with some people,
among others the American writer Harry V. Miller, who, without
knowing me, wrote an extraordinary letter which I still have about his
obsession.

In the film are amalgamated the aesthetics of Surrealism with
Freudian discoveries. It answered the general principle of that school,
which defines Surrealism as an unconscious, psychic automatism, able
to return to the mind its real function, outside of all control exercised
by reason, morality or aesthetics.

Although I availed myself of oniric elements, the film is not the
description of a dream. On the contrary, the environment and
characters are of a realistic type. Its fundamental difference from
other films consists in the fact that the characters function, animated
by impulses, the primal sources of which are confused with those of
irrationalism, which, in turn, are those of poetry. At times these
characters react enigmatically, in as far as a pathological psychic
complex can be enigmatic.

This film is directed at the unconscious feelings of man, and therefore
is of universal value, although it may seem reprehensible to certain
groups of society which are sustained by puritanical moral principles.

Luis Buñuel, as quoted in Francisco Aranda, *Luis Buñuel*, London
1975, p.56.

**Henri Chomette**

1896 Born in Paris, brother to René Clair
   Assistant to Robert Boudriot, Jacques Feyder and Jacques de
   Barbecoule
   Exponent of ‘pure cinema’
1927 Killed in Rabat as film correspondent for the French Army in
   Morocco

(selected filmography)
1923-25 *Jeux de Reflets, de Lumière et de Vitesse* 5 min
1925-26 *Cinq Minutes de Cinéma Par 5 min*

These two films are perhaps the most perfect example of a rigorously
‘pure’ cinema as distinct from abstract cinema, evidence of a ‘hopeless
but not useless’ revolt, alas without immediate issue. The second film
was made only because — according to Jacques Bruin — having fallen out with the patron who commissioned the first and who
claimed to be its maker, Chomette did not have a copy to use as he
pleased.

At that time the question of purity loomed large for the literary
avant-garde and, of course, for the cinematic avant-garde as well; this
purity was understood in relation to conventional representation,
which encompassed all aspects of cinema. But Chomette declared that
the cinema must not restrict itself to the representational mode:
‘It can create. It has already created a type of rhythm (which I have
not cited in the case of current films, because its value is extremely
diminished there as a result of the signifying impact of the image).

Thanks to this rhythm, the cinema can draw from itself a new power
which, abandoning the logic of facts and the reality of objects,
generates a succession of unfamilial visions — inconceivable outside
the union of lens and moving filmstrip: intrinsic cinema or, if you will,
pure cinema, since it’s separated from all other elements, dramatic or
documentary — it is this which allows us to anticipate certain works
from our most personal film-makers. It is this which offers the true
field to pure cinematically imagination, and will give birth to that which is
named (by Mme Germaine Duluc, I think) visual symphony.’

‘Universal kaleidoscope, generator of all moving vision — from
the most mundane to the most immortal — why should the cinema
not create, with the domain of sound combined with that of light; pure
rhythm and pure form?’

*From Cinéma Dada et Surrealiste, Centre National d’art et de culture Georges

3 *Henri Chomette, Les cahiers du mois, 1925.*
4 *Bruno Cora* see Futurism
5 *René Clair* 1898 Born in Paris
   1918 Began a career as a journalist, at the same time acting in several
   films
   1923 Began long career in film-making
   Lives in Paris
   (selected filmography)
   1923 *Paris Qui Dort* 61 min
   1924 *Entr’acte* 22 min

Entr’acte was first shown in the Ballet Relâche, at the Théâtre des
Champs-Elyssées, Paris, on December 4, 1924. The date of the first
performance is generally given erroneously as November 29. The
premiere was, in fact, announced for this day, but postponed since
Jean Botin, the principal dancer, had sprained his ankle. The first
London showing was given by the Film Society on January 17, 1926.
... The marvellous barbarity of this art charms me. Here at last is
virgin soil. I do not mind being ignorant of the laws of this as yet
unknown world. ... Pleasure I feel at the sight of motion pictures is often
not the kind I was intended to feel; it is a sensation of musical
freedom'. — From Rene Clair’s article on rhythm in *Les Cahiers du
Mois, 1925.*

Clair made *Entr’acte* as a film to be shown between the two acts of
Relâche, ballet instantané en deux actes (Relâche means ‘No
Performance’). Both ballet and film were produced by the Ballets
Suédois, a company founded by Rolf de Maré, a rich Swede, and
directed by Jean Borkin. The book of the ballet was by Picabia, who
conceived the entire entertainment in Dadist terms, consisting in
typically inconsequential successions of associations in shapes, lights,
rhythms and ideas. In style, though, the film is Clair’s entirely. “I gave
him a tiny scenario amounting to nothing”, wrote Picabia, “and he has
made a masterpiece from it: *Entr’acte*”. Many of its motifs were to
become characteristic of his later films — the comedy of magic, wands
and all; the macabre introduced only to by stripped of its terrors (a
‘legless’ man who stands up and runs, the funeral of a man who never
died, etc.); the extraordinary of a chase.

From René Clair, *An Index*, by Catherine de la Roche, London, 1958

**Jean Cocteau**

1889 Born
1910 Begins to establish himself in Paris as poet and novelist,
becomes friends with Diaghilev, Stravinsky, Picasso, Apollinaire,
Cendrars, etc.
1930 Directs *Blood of a Poet;* play- and script-writing become
   important aspects of his literary work
1945-59 Commits himself primarily to film-making
1963 Died
1930 *Le Sang d’un Poète*
1945 *La Belle et la Bête*
1947 *L’Aigle a deux Têtes*
1948 *Les Parents Terribles*
1950 *Orphée*
1950 *Coriolan* (16mm)
1952 *La Villa Santo-Sospir* (16mm)
1959 *Le Testament d’Orphée*
It is often said that *The Blood of a Poet* is a surreal film. However, surrealism did not exist when I first thought of it. On the contrary, the interest that it still arouses probably comes from its isolation from the works with which it is classified. I am speaking of the works of a minority that has opposed and unbearably governed the majority throughout the centuries. This minority has its antagonistic aspects. At the time of *The Blood of a Poet*, I was the only one of this minority to avoid the deliberate manifestations of the unconscious in favor of a kind of half-sleep through which I wandered as though in a labyrinth. I applied myself only to the relief and to the details of the images that came forth from the great darkness of the human body. I adopted them then and there as the documentary scenes of another kingdom. That is why this film, which has only one style, that, for example, of the bearing or the gestures of a man, presents many surfaces for its exegesis. Its exegeses were innumerable. If I were questioned about any one of them, I would have trouble in answering.

My relationship with the work was like that of a cabinet-maker who puts together the pieces of a table whom the spiritualists, who make the table move, consult.

*The Blood of a Poet* draws nothing from either dreams or symbols. As far as the former are concerned, it initiates their mechanism, and by letting the mind relax, as in sleep, it lets memories entwine, move and express themselves freely. As for the latter, it rejects them, and substitutes acts, or allegories of these acts, that the spectator can make symbols of if he wishes.

The innumerable faults of *The Blood of a Poet* are due to giving it a certain appeal . . .

Appeal all, what really marks *The Blood of a Poet* is, I think, a complete indissociation to what the world finds 'poetic', the care taken, on the contrary, to create a vehicle for poetry — whether it is used as such or not.

Germaine Dulac (Charlotte Elizabeth Germaine Saisset-Schneider)

1882 Born in Amiens, France
1909-13 Writer for *La Francaise*, a feminist journal
1914 To Italy with actress Stasia de Nagierowska, where Dulac picks up film experience on the set of Caligola
1915 Founded D. H. Productions with Irene Hillel-Erlanger and begins producing films
1921 To USA to study production methods, meets D. W. Griffith
1930-40 Founder and director of weekly magazine *France-Activités-Gaumont*
1942 Died in Paris

1915 *Les Sourciers Ennemis*
1916 *Le Miroir Mysterieux*
1916 *Vénus Victix*
1916 *Dans L'Espagnole de la Vie*
1917 *Mes de Fous*
1918 *Le Bonheur des Autres*
1919 *La Vie Espagnole*
1919 *Le Crime*
1920 *Malocontré*
1920 *La Belle Dame sans Merci*
1921 *Le Mort du Soleil*
1922 *Werther* (incomplete)
1923 *La Soumaine Madame Beudet*
1923 *Gosselle*
1924 *Le Double dans la Ville*
1925 *Ame d'Ariste*
1926 *Le Folie de la Vauillons*
1927 *Assassinée Sabreux*
1927 *La Coquille et le Clergyman*
1927 *L' Invitation au Voyage*
1927 *Le Cinéma au Service de l'Histoire*
1928 *La Princesse Mandane*
1928 *Diapo 927*
1928 *Thèmes et Variations*
1929 *Germination d'un Haricot*
1929 *Éclat Cinématographique sur une Arabesque* (for texts by Dulac see page 127)

Theo van Doesburg (C. E. M. Kupper)

1883 Born in Utrecht
1917 Founded *De Stijl* group with Mondrian, Huszar, Oud. Kok. Began publishing *De Stijl* magazine as well as a Dadaist publication named *Mecano*. Dada poetry and essays published elsewhere under pseudonyms of I. K. Bronet and Aldo Camini
1931 Died in Davos

The painters Hans Richter and Viking Eggeling did not introduce abstract film completely unexpectedly. To overcome the static nature of painting by way of the dynamic character of the film technique was a dream already in the minds of artists who were trying to resolve the modern problems of pictorial art. And through film the dynamic and the static were artifices linked. But the satisfaction had not yet been reached, just as the ambition for a solution relevant to today was still unfulfilled.

Being able to express, through a so-called expressionist film, the dramatic content of a thoroughly rotten ideology is not a solution relevant to our times. At this stage I could point out several more compromises, but abstract film, which introduces a new area of dynamic possibility of expression, has nothing to do with that. It is well known that in their painting the Futurists, too, searched for a dynamic effect, which, considering the character of their work, never really bore fruit. More 'dynamo-technisch' was the notion of V. Huszar, one of our staff at *De Stijl* in 1918, of transferring the abstract colour picture on to film, and through that to create a possibility of producing continuously changing compositions. I am relating this in connection with the now advanced experiments of Richter and Eggeling. I know there is always a certain danger in comparing abstract film with music, which always gives rise to misunderstanding. And yet, by making this comparison of abstract film with visible music one can clear up the misunderstanding: in roughly the same way as in music the whole composition becomes visible in the open light field. The spectator looks at the composition formerly defined in a 'full score' by the artist on the light field, which becomes a certainty and disappears again. Thereafter a new composition of quite a different arrangement, proportion and structure is being constructed.

This abstract 'Dynamo-Plastik', realised in a mechanical way, can be accompanied as well as through musical compositions, whereby the instrumentation as well as the content must be completely new. It seems that this idea of a mechanical picture was occupying several artists at the same time. And when the painters Richter and Eggeling contacted 'De Stijl', in order to be able to realise their ideas, I went abruptly to Niedersatz as I felt completely in agreement with them and wanted to get to know their work and their ideas. Although they did not quite grasp the question of form, it was clear to me not only that they found one 'General Basis' for the Dynamo-Plastik, but also that for one year they were investigating the possibilities of technical production at the University of UFA in Berlin. The drawings necessary for the mechanical realisation of a composition consist of long and scrolls of full scores or to which the development of the composition is consecutively stated, but is in a way that the intermediate moments are developed mechanically. These drawings, minutely executed in black, white and grey are, in spite of the precise execution, still not exact enough. The enormous less enlargement in a lightfield of for example 10 × 6 metres discloses every weakness of the human hand and shows that it is no longer the hand which creates art, but the spirit. And at this spirit demands the greatest possible precision for the expression the modern machine is only in its utmost perfection capable of realising the highest demands of the creative spirit.

The need for a very precise drawing makes a mechanical arrangement of the plane-space-colour ratio necessary. And here the helplessness of the primitive handicraft is again apparent. It is well known that for one full film score 300 drawings are needed, and from this one realises that abstract film is a territory in which the mechanical way of drawing can be of the greatest service.

The painters Hans Richter and Viking Eggeling are also searching for results in this direction. Supported by the experts in the field of science and technique (among them) it will not be difficult. Germany, however, is too poor a country to industrialise this art, and for that we must look to Holland who with its very high monetary standard must make possible industrially and financially the Bayreuth of the new cinema.

The first screening experiments were limited to compositions in black, white and grey. The reproduction in this issue gives more or less of an impression of such compositions at the exact moment when an entity is built up through light. The centre of the picture develops farther still until the proportions reach a complete creative exactness. This reproduction shows no more than one moment of a very exact proportion of the composition, but is de facto not to be separated from the moving light apparatus of the film. This film recording need not only be a co-operation of all the arts of a 'General Basis'. It can also liberate the new pictures from the old and primitive way of handicraft painting in oil.

When the film technique is totally suited to the Dynamo-Plastik those who practice the fine arts will 'write' their compositions for film. The relationships of colour and form will be specified through numerals.
and according to their sketches they will arrive at the most exact and perfect expression in a mechanical way through electricity.

Theo van Doesburg De Stijl Nr 5, June 1921

Marcel Duchamp

1887 Born in Blainville, France
1906-1915 Begins career as a painter in Paris
1915-19 In New York, abandons painting, begins optical experiments with Max Ray
1919 Returned to Paris, participated in Dada and Surrealist activities, eventually 'ceasing to produce art'.
1968 Died in Neuilly

1920 Moustiques Domestiques Demi-Stock (stereoscopic experiments with Max Ray, never completed as a film) 1925 Anemic Cinema 7 mins

It is through his research into threedimensionality that Marcel Duchamp, with the help of Max Ray, became interested in the cinema. A first attempt in 1920 in New York, made with two synchronised cameras (a transposition of stereo-photographic techniques known and used widely since the beginning of the century) was ruined in the developing process except for a few images.

But another solution, using circles de-centred from their axis of rotation, had been envisaged since 1920 and was successfully realised with the 'rotary demi-circle' constructed for Jacques Doucet in 1925. This film, whose anagrammatic title immediately evokes an illusory 'depth', was very strictly composed of 10 optical discs between which alternated nine discs carrying the following inscriptions:

— Bains de pluie for grains de beauté sans trop de Bengue
— L'entend qui tète est un sourire de chien qui n'aime pas le choeur-feu de terre chauve.
— Si je te donne un sou, me donneras-tu une paire de ciseaux
— Un damier des moustiques domestiques demi-stock pour la cure d'amour sur le Côté d'Azur.
— Insecte ou passion de familie à coup trop tirés.
— Esquisses les coquillages des Eupiamae aux moys exquis
— Avez-vous déjà mis la moiselle de l'épée dans le pelvis de l'aimée?
— Pris nos oiseaux de quincaillerie par saisons, nous commandons le robe qui sorte de coeur quand on ne l'écoute pas.

— L'inspirant habite Javel et moi j'avais la bite en spirale.

It is not known exactly when, nor by whom, several very short shots were introduced in the middle of the film (the face of a girl, a tank clearing an obstacle, a statue of Napoleon which crumbles), shots perhaps indebted to Eisenstein (according to G. Sadoul, who describes the film in this form in his Souvenirs d'un témoin). But it was probably done very early, as attested by the early copy conserved by the Danish film archives.

Duchamp, however, has explicitly and entirely denounced this in an unpublished correspondence with Serge Stauffer. In a letter dated 10 May 1961, Stauffer asked him if he remembered the 'realistic section' which lasts a little more than a minute in Anemic Cinema. Duchamp responded from New York on 28 May that he had no memory of the interpolations (Napoléon, etc.) of which you speak, certainly done without my consent. Not completely satisfied with this response, Stauffer returned to this point in another letter dated 20 June and he included stills from the film. The reply from Duchamp (date 26 June) was emphatic: 'I am sending you the stills of Anemic Cinema, and all those marked "do not recognise" have been added by "anonymous". It is essential that they not be published or thus create a general delusion about a version for which I am in no way responsible.'

from Cinéma Dada et Surrealiste, Centre Georges Pompidou, Paris. 1979, p. 32.

Viking Eggeling

1880 Born October 21 in LUND (Sweden)
1897 Emigrates to Germany and commences vocational training in Flinsburg
1906 Book-keeper with a clock factory in Le Locle, Switzerland
1911 Works as an artist in Paris, mixing with Modigliani. Arp, Pissarro, Klee, Kandinsky
1915-17 Produces designs which are possibly first sketches for the scroll-pictures Horizontal-Vertical Orchestra and Diagonal Symphony
1918 Lives in Zurich, where he renewes his acquaintance with Arp and comes in contact with other members of the Dada movement.
1919 Gets to know Hans Richter through Tristan Tzara.
1919 Goes to Germany with Richter (Klein-Kitzig, near Berlin) where both work at studies and experiments in form.
1920 Begins film experiments with Richter. First attempts at Horizontal-Vertical Orchestra.
1922 Eggeling moves into artistic circle with El Lisitsky, Kurt Schwitters, Raoul Hausmann, Erich Buchholz, Werner Graeff and others.
1923 Meets Erna Niemeyer (Re Niemeyer-Soupaill) and begins collaboration with her on the film Diagonal Symphony.
1925 First public screening on May 19 in Berlin.

Rediscovering Berlin in 1947, I was making my way through the ruins in search of missing friends when to my great surprise I saw a house I had known many years ago; a house by some mysterious twist of fate spared from the destructive mania of the aerial raids.

Located very close to the Wittenbergplatz, Wormserstrasse 6a on the corner of Bayreuther Strasse, it was an ugly house, one of many blocks of flats in Berlin where, beneath the roof on the 6th floor, two so-called 'artist studios' nestled. The north face had large, sloping, studio windows, without watermain or heating. The house had been put up during the 1880's, possibly later. Over the years the window frames began to let water in as on a wet day it was necessary to place a bath-tub beneath, to prevent the floor being flooded. The winter in Berlin is bitter. The studios became ice cold, and it was possible only slightly to ease the temperature, if one had some coal, by the small, high-pressure furnace. In the summer an almost tropical heat accumulated in the room.

In one of these two Wormserstrasse studios the Swede, Viking Eggeling, lived and worked from 1921 until his death in 1925, a painter and pioneer of abstract film, or as I should say, the initiator of a new art form which one could call 'optical music' (Augenmaske).

Stopping in Berlin for a visit in the summer of 1923, I was introduced to Eggeling through Werner Graeff who, like myself, was studying at the 'Staatlichen Bauhaus' in Weimar. Until then, I knew nothing about Eggeling, and Werner Graeff spoke of him quite by chance. We then went for a walk through the town and crossed the Wittenbergplatz. Graeff told me that the sloping studio windows visible from where we stood were in fact the studio windows of Eggeling's room. I asked him who was Eggeling, and he explained that he was an important artist working on something completely new; that he drew, so to speak, with light onto a dark canvas, creating elementary geometrical forms and lines through proportions, numerical relations and intensity of light in a threedimensional context. In which something originates like light-music for the eye. This description enthralled me. 'Where is it possible to see his work?' I asked. 'Perhaps at his place', said Graeff. 'We'll go up, maybe he is at home'. I was so impressed that Graeff knew such an important artist well enough to risk visiting him unannounced, at 11 am and accompanied by a stranger. We went into number 6a Wormserstrasse. There was a lift, attached to the outside wall facing into the courtyard, that had evidently been put in long after the house was built. It was out of order at the time, and years later the nickety old machine was closed down by the police and eventually dismantled because it was quite unsafe. We climbed up to the sixth floor. Two doors to the two
studios and there, in the corridor, directly opposite Eggeling's studio on the right hand side, was the water supply of the two sixth floor tenants. Werner Graef banged vigorously on the door — there was silence. I was not at all surprised: at 11 am I most people are up and out. But Graef wasn't going up, and at last an extremely sleepy voice replied: "where's he?" Graef called back that it was he, and after a while the door opened. A thin blonde man of medium height stood before us. He had extremely dark blue eyes, and a very drowsy look upon his face. He was wearing a garment that might have been a dressing gown. We had awakened Eggeling. It was not by chance that he had over-slept; he had suffered since an early age from terrible insomnia, and could only sleep with the help of Gardinal which he took regularly, often sleeping on into the afternoon if he got off to sleep late.

He invited us in. In the first little room just to the right of the door there was a gas cooker, on the left a wash-stand, and against the wall a bed. Light shone in through a small sleeping window, and a curtain of sack-cloth separated the little ante-room from the actual studio, which was quite a large, well proportioned room, brilliantly lit by the daylight of the sleeping studio window. Mounted on the left wall separating the little room from the main one, was a timber bracket supporting a small hand-wind projector. By moving the hand-winder, any picture would thus be projected on to the opposite wall, and that was indeed the method by which Eggeling examined the results of his current experiments. On the right, along the wall stood a sofa with a torn cover, and behind that hung an Indian batik cloth, lending a touch of homeseliness to the room. In the centre was a working table and two or three primitive chairs, and opposite the entrance a high-pressure furnace, turned off of course, because it was summer. I should have remembered little of the sparse arrangement of the studio, except for that any visitor is sure to notice, had I not had over a year in which to become familiar with these details. What did, above all, catch the visitor's attention were the sketches for Eggeling's optical symphonies pinned up everywhere. They were pencil drawings, on quite ordinary paper, of geometric forms. In order to be able to unfold the different phases of the optical development of these drawings, Eggeling put them on to ovals. One had to imagine the shapes and lines in total reverse — i.e. the black on white as white on black — or better still, as light on dark. Here for the first time I saw the Horizontal-Vertical Orchestra, and three variations of the Diagonal Symphony. The sketches made an incredible impression, and Eggeling's method of working them out also became clear to me.

And yet really the best results of this new art form had still not been achieved. What there were were most unsatisfactory fragments which did not only display great technical imperfections, but also proved that the film technique was unaccommodating to Eggeling's ideas — a fact not clearly discernible until then. Eggeling was not a technician. He employed an animation film-operator who had to be paid by the hour. This man understood little of Eggeling's ideas, but he set him up in a darkroom in a partitioned-off space opposite the studio, and at the bottom between four posts, was a sort of lightbox; above it, at the required distance, an Askania-Werke camera.

The lines and shapes were cut with a sharp knife from a very tough type of tin foil (already an improvement, for the first experiments had been done with paper), and by masking or de-masking on exposure after exposure a movement on the film-strip was created. To achieve the impression of motion demanded a great many experiments and calculations, and when several 'voices' were to appear on the screen simultaneously it became very difficult indeed. These 'voices' had to be not only independent of one another, but directed against one another in a satisfactory way.

Counterpoint had not yet been created in this new art form.

Eggeling's operator was in complete despair, so impossible did the task seem to him. Added to that, Eggeling's money was evaporating, and he could no longer afford to pay the man. This was exactly the situation when I first got to know Eggeling. Since the spring of 1921 I had been at the Bauhaus in Weimar. Itten's foundation course was so full of new ideas and possibilities that I took it twice. After that I had to choose which workshop to enter, and I decided on weaving — more out of confusion than actual conviction. I began weaving and knitting carpets but soon realised that there was no future for me in this field, so when Eggeling suggested that I help him with his film experiments I left the Bauhaus and went straight to Berlin. There Eggeling's operator showed me how to use the camera. From time to time the engineer of the Askania factory placed at Eggeling's disposal their latest model, completely free of charge, and followed the latter's experiments with the greatest interest thereby hoping to rectify any technical faults the camera may have had. The greatest difficulty was in winding the film back several times in order to be able to record on the film a second, or sometimes third 'melody'. Quite often the whole working process had to be repeated because the winding back of the film had been unsuccessful, and to open the camera and see a whole roll of film drop out was extremely disappointing.

Another problem was the light which was very uneven because its source was a number of bulbs, and those in the centre were brighter than those at a greater distance from the lightbox. It was too difficult impossible to achieve a line with even density, in spite of the focusing screen. But the greatest difficulty of all for this new art form was the lack of a counterpoint, a 'law of harmony'.

The work was carried out in this manner: Eggeling would describe to me his thoughts of a certain movement, tempo, rhythm etc. My job was the cutting out of lines and shapes from the tin foil, as well as the technical execution on the rostrum. Exact calculations were necessary, in order to achieve the required temp; calculations which became extremely complicated when a second and third 'melody' was brought in. Eggeling was determined to realise, first of all, the Horizontal-Vertical Orchestra but the experiments were disappointing because the shapes were so rigid. It seemed to me that the Diagonal Symphony would be more suited to these first experiments, because it offered more freedom of movement. The first frames convinced Eggeling. The film began with a wavy line wide at the top and narrowing towards the bottom. Parts of the film really surpassed all expectations, and had we not been short both of money and time studies for a counterpoint ought at this point to have been established. However in spite of all the difficulties one film was completed. It was screened on 5th November, 1924 at the Gloria Palace, for invited guests.

Soon after the premiere Eggeling travelled to Paris where he showed his film to Fernand Léger, and met Tzara and other friends whom I have since spoken to about the event. On his way back from Paris Eggeling met me in Hannover where I was staying with Schwitter and his wife for a few weeks. My work for Eggeling was now over and I returned to Weimar before the end of the year. But my health was in a bad state from the strains and privations of the last year and so my mother arranged for me to recuperate in Italy.

Eggeling gave me the impression of being a completely balanced sort of person. Was he a Dadist? No, for he had a classical conception of art, but he had a great sympathy for the Dadists, in particular for Tzara. I am also indebted to Eggeling for his introduction to me of Leonardo's Treatise on Painting. Eggeling had the greatest admiration for Leonardo.

Eggeling was absolutely delighted with his popularity in Berlin. Amongst his closest friends belonged Dr. Charlotte Wolff, friend of Dora and Walter Benjamin, who in her book On the Way to Myself gave a detailed account of a trip through Russia where she lectured at the University of Kharov on Eggeling's film. It was she who thought up the name for this new art form: 'Eydodynamik' — a name which was also accepted by Eggeling himself.

Eggeling's personality transcended the world of success and self-seeking. He belonged to no church, party or group. His need for independence was total. He also had a sense of humour. Once at a Berlin guest house he had to complete the check-in form, where amongst other things they demanded to know his religion. He wrote briefly, 'Heathen.' For Eggeling this was no brin mat. He wished to express with this one word his non-conformist attitude as a human being and as an artist, and at the same time to show his indignation at such an indiscreet question.

He had an almost pathological fear of age. So much so that it
struck me as almost childish self-deception when he would state the year of his birth as not 1880 — the actual date — but 1888. The last time I was in Berlin was in 1962. This time the house at number 8a Wormserstrasse was no longer there. In its place was a parking lot, and on the very spot where Eggeling's studio once stood a large American limousine was parked. This seemed to me to be symbolic.

Ré Soupault Paris, October 1977

Sergio Eisenstein

1898 Born in Riga, Latvia
1915-17 studied at the Petrograd Institute of Civil Engineering
1918-20 served in the Red Army, first in engineering unit and later in agit-prop theatrical unit
1920-24 worked with various theatrical troupes in Moscow
1924 began film-making career.
1948 died in Moscow

1924 Strike
1925 Battleship Potemkin
1927 October
1929 The General Line
1939 Alexander Nevsky
1941-46 Ivan the Terrible, parts I and II

The attraction (as our diagnosis of the theatre) is every aggressive moment in it, i.e., every element of it that brings to light in the spectator those senses or that psychology that influence his experience — every element that can be verified and mathematically calculated to produce certain emotional shocks in a proper order within the totality — the only means by which it is possible to make the final ideological conclusion perceptible. The way to knowledge — 'Through the living play of the passions' — applies specifically to the theatre (perceptually).

Sensual and psychological, of course, in the sense of efficient action — as directly active as in the Theatre Guignol, where an eye is gouged out, an arm or leg amputated before the very eyes of the audience; or a telephone communication is incorporated into the action to describe a horrible event that is taking place ten miles away; or a situation in which a drunkard, sensing his approaching end, seeks relief in madness. Rather in this sense than in that branch of the psychological theatre where the attraction rests in the theme only, and exists and operates beneath the action, although the theme may be an extremely urgent one. (The mistake made by most agit-theatres is in their satisfaction with those attractions that already exist in their scripts.)

The attraction has nothing in common with the trick. Tricks are accomplished and completed on a plane of pure craftsmanship (acrobat tricks, for example) and include that kind of attraction linked to the process of giving (or in circus slang, 'selling') one's self. As the circus term indicates, inasmuch as it is clearly from the viewpoint of the performer himself, it is absolutely opposite to the attraction — which is based exclusively on the reaction of the audience.

Approached genuinely, this basically determines the possible principles of construction as 'an action of construction' (of the whole production). Instead of a static 'reflection' of an event with all possibilities for activity within the limits of the event's logical action, we advance to a new plane — the montage of arbitrarily selected, independent (within the given composition and the subject links that hold the influencing actions together) attractions — all from the stand of establishing certain final thematic effects — this is montage of attractions. The theatre is confronted with the problem of transforming its 'illusory pictures' and its 'presentations' into a montage of real matters. While at the same time weaving into the montage full 'pieces of representation' tied to the plot development of the subject, but now as self-forced and all-determining, but as consciously contributing to the whole production and selected from their pure strength as active attractions.

Schooling for the montage can be found in the cinema, and chiefly in the music-hall and circus, which invariably (substantially speaking) puts on a good show — from the spectator's viewpoint. This schooling is necessary in order to build a strong music-hall-circus programme, resulting from the situation found at the base of a play...

S. Eisenstein, Lef, No. 3, 1923

'Montage of Attractions'

Oskar Fischlager

1900 Born in Gelhausen near Frankfurt
1914-15 Apprentice to an organ-builder, Gelhausen
1915-16 Draughtsman in office of City Architect Goppelt, Gelhausen
1916-22 Tool designer and engineer with the turbine factory Pokorny & Wiedekind, Frankfurt
1919-21 Member of a Frankfurt literary club where he meets the newspaper critic Bernhard Diebold who has been promoting abstract film. Prepares graphic charts of the dynamics of two plays: Fritz von Unruh's expressionistic anti-war drama Ein Geschlecht (Generations), and Shakespeare's Twelfth Night. Diebold encourages him to make an abstract film of such graphics.

1921 Diebold introduces Oskar to Walther Ruttmann at the premiere of Ruttmann's Opus I, Frankfurt. April, Oskar tries to interest Ruttmann in a labour-saving animation machine he has been working on.

1922 August: Oskar moves to Munich to devote himself full time to filmmaking. November: Ruttmann buys a wax-slicing machine from Oskar. Oskar also invents and markets a clean-burning natural gas motor, but his business partner Güttler defrauds him of the profit, and Oskar is left in debt

1924-26 Oskar forms partnership with Louis Seel to produce a series of short films, Münchener Bilderbogen. Seel Co. also goes broke, leaving Oskar deeper in debt.

1921-27 Oskar produces independently various abstract film work: Was Experiment, Orgeleise (literally organ-pipes but translated by Oskar as Staffs) with cut-out silhouettes, Stromlinien (Currents) with colour liquids, etc.

1925-26 Alexander Lásló uses abstract films by Oskar as part of his Farblichtmusik colour-organ performances throughout Germany

1926-27 Oskar performs his own multiple-projector shows in Munich studio: Feuer (Fever), Vakuum (Vacuum), and Macht (Power). Also produces representational silhouette-animation film Sektische Konstruktionen (Spiritual Constructions), and special effects for feature film Noah's Ark.

1927 To escape debts, Oskar spends summer walking from Munich to Berlin, taking single frames of people and places he encounters: Münchener-Berliner Wanderschaft

1926 Oskar, now permanently living in Berlin, prepares special effects for Ernö Metzner's Die Schicksal (Your Destiny), a political film supporting the radical Sozial Demokratische Partei. Also other advertising films and special effects.
black-and-white, drawn with charcoal on white paper. Studies #2 - #6, synchronized with popular music on records, shown at Kamera Unter den Linden in Berlin. Utikijik in Amsterdam and other avant-garde cinemas in Europe.

1930 - UFA distributes Study #1 and Study #7 as shorts with his feature films. Preparing sound-on-film prints leads to problems getting rights to music. Oskar unable to secure rights to Los Veredones, the track to Study #6, so Paul Hindemith and his students attempt composing music specially for it, but the results are not wholly satisfactory, and Oskar withdraws the film from circulation. Following continued success of Study #7 (synchronized to Brahm's Hungarian Dance #3) Oskar decides to sublet his film music as a composition to all film studios.

1930 - Oskar does special effects for an hour-long documentary Das Hoheits der Kraft (The Hymn of Energy), including images of electricity, sub-atomic particles and molecules.

1931 - Oskar and his young artist student Allemann, move to work at Fischinger Studios. Later they marry, and over the years have five children. Study #8 remains unfinished because Oskar cannot afford the fee for the rights to the second half of the musical score, Paul Hindemith's Happy Sappho. Oskar buys rights to ballet music from Verdier's Aida, and begins film based on it (eventually Study #10).

1931 - Runmann and Lázló Moholy-Nagy use Oskar's films with lectures. A poll in a newspaper Der Deutsche ausgezeichnet Oskar's Studies the Critics' Prize. Oskar's younger brother Hans comes to work at Fischinger Studio, initially filling in Oskar's designs for Study #6 synchronized with Brahms' Hungarian Dance #6. Oskar prepares a silent study, Liebespilz (Love-games).

1932 - Oskar prepares Study #11 to cut from Mozart's Eine Kleine Nachtmusik. Hans prepares Study #12 to the torch dance from Rubinstein's Bride of Corinth. Oskar makes Kolonatok (Coloratura) as a preview/trailer for a feature film Gipsy und enfield for Harbor. Debord lectures at the premiere of study #12 in Kamera Unter den Linden. In a film of Fischinger's at Munich's Marmorhaus sells out and must be repeated.

1932 - Oskar spends the summer in experiments with synthetic sound, which are reported widely in newspapers in July, and about which he lectures at the scientific academy Haus der Ingenieure in Berlin during August.

1933 - Depression brings independent film production to a halt. Oskar does special effects for a dull documentary Eine Viertelstunde (15 minutes) on statistics. Hans and Oskar quarrel, and Hans leaves Berlin. Oskar's Study #13 to Beethoven's Kortolan overture, and Hans' Study #14 to Brahms' Hungarian Dance #3 left unfinished. Oskar collaborates with Dr Bels Gasper in producing a color camera and film. Teilig advertising agency undertakes first colour film Kreise (circles) to music by Wagner and Grieg, released in December.

1934 - Oskar prepares a coloured version of Study #11 which is released under the title Ein Spiel in Farben (a play in colours). A colour cigarette advertisement Munatt's gift ein (Munatt's match) is in, in which cigarettes are seen waiting for the first time, opens to thunderous applause in April, and plays for a full year at first-run cinemas in Europe. Oskar deluged with commissions for commercial work. Oskar takes a walking trip to Switzerland, and makes a live-action film about landscapes, which he edits to Bech's Brandenburg Concerto #3. Oskar prepares 271 paintings for a loop of moving coloured squares, Quadratic. Many commercial jobs

1935 - Komponist in blue to the overture from Nicolai's Merry Wives of Windsor premieres in May, and is huge success. Oskar (and all non-objective artists) now under attack from Nazi government for producing 'degenerate' art. Situation worsens when Komposition wins Grand Prix at Venice and special prize at Brussels. Oskar's baby son killed in accident; Oskar very depressed. Komposition and Murati commercial previewed in Hollywood; Paramount rushes offer to Berlin, and Oskar accepts.

1936 - Oskar sails for Hollywood, never to return to Germany. Paramount commissions abstract sequence for feature Big Broadcast of 1937 starring George Burns and Gracie Allen. Oskar prepares color animations synchronized to a piece Radio Dynamix by studio composer Ralph Raimer. Paramount refuses to print Oskar's work in color, since the rest of the feature is in black-and-white. Oskar quits. At the urging of friends like Karl Nierendorf, Gaika Scheyer and Lyonel Feininger, Oskar begins oil painting, which he had previously eschewed because he felt that film rather than static arts would be the art form of the future.


1938 - Oskar drives to New York to try to get backing for a feature-length film of Dvorak's New World Symphony for the World's Fair. No backing forthcoming, but Oskar screens films at Fifth Avenue Playhouse, and has one-man painting shows at Carl Nierendorf's and Philip Boyer's galleries. Meets Hilla Rebay of the Solomon Guggenheim Foundation.

1938-39 - Already in 1935, Oskar had told the newspaper Film Kurier that his New Year's wish was to make a feature-length non-objective film. Also in Berlin, Oskar had tried to get the rights to use Stokowski's orchestral version of Bach's Toccata and Fugue in D Minor as the track for an abstract film. When Oskar and Stokowski were both employed by Paramount in 1936, Oskar wrote Stokowski suggesting that they collaborate on a feature-length non-objective film which would open with an image of Stokowski silhouetted before his orchestra, 'zooming in' on Stokowski's hand which would then become 'abstract' and blend into other non-objective imagery. In 1938, Stokowski proposes the idea of a concert feature to Disney, and Disney Studios hires Oskar as an animator for the Bach sequence of Fantasia. Oskar's design is all altered by committees that find them too abstract and too demanding. Oskar quits in disgust, but not before animating the spark of the Blue Fairy's wand for Pinocchio.

1940 - Oskar concentrates on oil paintings, shoots flicker sequence used in Radio Dynamix.

1941 - Rebay awards Oskar a grant from the Guggenheim Foundation to make a patriotic film, resulting in An American Melody, synchronized with Sousa's Stars and Stripes Forever. Rebay is delighted, and awards Oskar a second grant to buy back from Paramount the film which he made for them (which had been stored in their vaults ever since). Rebay dislikes the title Radio Dynamics so the film is christened Allegro, and sells for the first time.

1941-42 - Orson Welles hires Oskar to collaborate on a projected biography of Louis Armstrong, and then on a film B. Is True, which will contain a section on the Carnival at Rio. Neither project is realized before Mercury Productions goes broke, but meanwhile Oskar is given studio space and supplies to do his own animation experiments, probably resulting in Organic Fragment and Colour Rhythm.

1942 - Rebay insists Oskar abandon frivolous Hollywood influence, and sponsors his study of Rudolf Steiner's Theosophy and Tantri tantric mysticism at the Institute of Mental Physics, for which he edits a silent meditation film (using the footage from Colour Rhythm) to which he apparently attached the old Paramount title Radio Dynamix. No record of Radio Dynamix being screened outside the studio, except, perhaps, in a private projection for Rebay.

1940-50 - Financial difficulties cause Oskar to concentrate more on painting, and he becomes involved in artistic social life of Los Angeles, with Man Ray and the Arensberg, Harold Lloyd and the California Colour Society, etc. Many film-makers visit, including AlexeiEff and Parler, McLaren, the Whitney brothers, Maya Deren, Kenneth Anger, Curtis, Harrington, Harry Smith, etc. Many painting shows in Los Angeles, San Francisco, Chicago and New York.

1944-45 - Rebay pays Oskar a stipend for him to produce a non-objective film synchronized to Bach's Brandenburg Concerto #3. Oskar makes several beginnings in different animation techniques, but is dissatisfied with each. Relations with Rebay strained.

1946 - For Solomon Guggenheim's 86th birthday Oskar prepares a mutoscope reel of some 600 oil-painted animations. Also designs two other mutoscope reels. Oskar's films screened to
enthusiastic audience (including Jordan Belson) of the Art in Cinematheque at San Francisco Museum of Art

1946-47 Rebay demands Oskar produce the Bach film 'immediately' or repay her the stipend money. Oskar paints the images for Motion Painting #1 in oil on Plexiglas over a nine-month period. The film premieres at Art Center College of Design in Los Angeles to an enthusiastic audience that demands an immediate replay-encore, but Rebay is not amused because the images are not precisely synchronized with the music. Rebay withdraws all support by Guggenheim Foundation

1948, 1955 Further exasperation with sync time, now involving new machinery Oskar invents which allows him to produce conventional music (with electronic timbre) very easily

1949 Motion Painting #1 awarded Grand Prix at Brussels Experimental Film Festival

1950-55 Various commercial projects including ads for Manitv TV and Oklahoma Gas, and special effects for Captain Midnight TV serial

1950 Oskar patents a home light-show instrument, the Lumigraph, on which he gives several public performances over the coming years, but which he never manages to make commercially viable

1951-52 Oskar had been working since 1948 on creating stereo oil paintings which show right and left eye information on parallel panes. Now he produces a brief film as a test reel to show potential backers that he could produce a 3-D film Motion Painting #2. No backing forthcoming

1953 Oskar has a film show at the San Francisco Museum of Art, where he appears playing the Lumigraph. Before the performance, a loud speaker falls and strikes him on the head. After this, he has continued health problems, including many strokes

1955 One-man painting show at San Francisco Museum of Art

1956 One-man painting show at Pasadena Art Museum

1960-61 Despite ill-health, Fischinger begins a Motion Painting #2 in 16mm, but abandons the project, possibly because of the arrival from Germany of some hundred cans containing his early films, which he goes over, sorts and labels during the next few years. Oskar also begins to build an optical printer, in hopes of transferring the early films from nitrate to safety stock

1967 After some years of severe ill-health, Oskar dies in Los Angeles

Elfrede Fischinger/Bill Moritz

Futurism

Filippo Tommaso Marinetti, Bruno Corra, Emilio Settimelli, Araldo Cinna, Giacomo Balla, and Remo Chiti

The Italian Futurists promoted the idea of a futurist cinema primarily through their manifesto, but the movement did produce several films. As early as 1910 the brothers Bruno Corra and Araldo Cinna apparently made several short, hand-painted abstract films, as described by Corra in a 1912 article titled 'Musica Chromatica'. In this context, Luigi Russolo's (1885-1947) interest in colour-sound correspondence (cf. his painting 'Musica' of 1911) and in mechanical music (cf. 'The Art of Noise' manifesto, 1913) become quite relevant in understanding the futurists' conception of a machine-age, synaesthetic experience offered by the new medium of film. In addition, Cinna directed an irrational farce titled Vita Futurista (Futurist Life) in 1916; in the same year Antón Giulio Bragaglia (1890-1960) directed two futurist-inspired dioramas, Il Perfilo Incanto (The Wicked Enchantment) and Thats.

The book, a wholly passio means of preserving and communicating thought, has for a long time been fitted to disappear like cathedrals, towers, cremellated walls, museums, and the pacific ideal. The book, static companion of the secretari, the nostalgic, the neutralist, cannot entertain or exalt the new Futurist generations intoxicated with revolutionary and bellicose dynamism . . .

At first look the cinema, born only a few years ago, may seem to be Futurist already, lacking a past and free from traditions. Actually, by appearing in the guise of theatre without words, it has inherited all the most traditional sweepings of the literary theatre. Consequently, everything we have said and done about the stage applies to the cinema. Our action is legitimate and necessary, as the cinema up to now has been and tends to remain profoundly passive, whereas we see it in the possibility of an eminently Futurist art and the expressive medium most adapted to the complex sensibility of a Futurist artist.

Except for interesting films of travel, hunting, wars, etc., the filmmakers have done no more than inflict on us the most backward looking diams, great and small. The same scenario whose brevity and variety may make it seem advanced is, in most cases, nothing but the most trite and pious analysis. Therefore all the immense artistic possibilities of the cinema still rest entirely in the future. The cinema is an autonomous art. The cinema must therefore never copy the stage. The cinema, being essentially visual, must above all fulfill the evolution of painting, detach itself from reality, from photography, from the graceful and solemn. It must become antigraceful, deforming, impressionistic, synthetic, dynamic, free-wording.

ONE MUST FREE THE CINEMA AS AN EXPRESSIVE MEDIUM in order to make it the ideal instrument of a new art, immensely vaster and lighter than all the existing arts. We are convinced that only in this way can one reach that polyexpressiveness toward which all the most modern artistic researches are moving.

Today the Futurist cinema creates precisely the POLYEXPRESSIVE SYMPHONY which just a year ago we announced in our manifesto, 'Weights, Measures, and Prices of Artistic Genius.' The most varied elements will enter into the Futurist film as expressive means: from the slice of life to the streak of colour, from the conventional onal line to words-in-freedom, from chromatic and plastic music to the music of objects. In other words it will be painting, architecture, sculpture, words-in-freedom, music of colours, lines, and forms, a jumble of objects and reality thrown together at random. We shall offer new inspirations for the researches of painters, which will tend to break out the limits of the frame. We shall set in motion the words-in-freedom that smash the boundaries of literature as they march toward painting, music, noise-art, and throw a marvelous bridge between the word and the real object.

Our films will be:

1. CINEMATIC ANALOGIES that use reality directly as one of the two elements of the analogy. Example: If we should want to express the anguish state of one of our protagonists, instead of describing it in its various phases of suffering, we would give an equivalent impression with the sight of a jagged and cavernous mountain . . .

2. CINEMATIC POEMS, SPEECHES, AND POETRY. We shall make all of their component images pass across the screen . . . Thus we shall riduce the works of the pastist poets, transforming to the great benefit of the public the most nostalgically monotonous, weepy poetry into violent, exciting, and highly exhilarating spectacles.

3. CINEMATIC SIMULTANEITY AND INTERPENETRATION of different times and places. We shall project two or three different visual episodes at the same time, one next to the other.

4. CINEMATIC MUSICAL RESEARCHES (dissonances, harmonies, symphonies of gestures, events, colours, etc).

5. DRAMATIZED STATES OF MIND ON FILM.

6. DAILY EXERCISES IN FREEING OURSELVES FROM MERE PHOTOGRAPHED LOGIC.

7. FILMED DRAMAS OF OBJECTS. (Objects animated, humanized, baffled, dressed up, impassioned, civilized, dancing — objects removed from their normal surroundings and put into a abnormal state that, by contrast, throws into relief their amazing construction and nonhuman life.)

8. SHOW WINDOWS OF FILMED IDEAS, EVENTS, TYPES, OBJECTS, ETC.

9. CONGRESSES, FLIRTS, FIGHTS AND MARRIAGES OF FUNNY FACES, MIMICRY, ETC. Example: A big rose that silences a thousand congressional fingers by ringing an ear, while two policemen's mustaches arrest a tooth.

10. FILMED UNREAL RECONSTRUCTIONS OF THE HUMAN BODY.

11. FILMED DRAMAS OF DISPROPORTION (a thirsty man who pulls out a tiny drinking straw that lengthens umbiliacally as far as a lake and dries it up instantly.)

12. POTENTIAL DRAMAS AND STRATEGIC PLANS OF FILMED FEELINGS.
13. LINEAR, PLASTIC, CHROMATIC, EQUIVALENCES, ETC., of men, women, events, thoughts, music, feelings, weights, smells, noises (with white lines on black we shall show the inner, physical rhythm of a husband who discovers his wife in adultery and chases the lover — rhythm of soul and rhythm of the lover). Paint + sculpture + plastic dynamism + words-in-freedom + composed noises + architecture + synthetic theatre = Futurist cinema. This is how WE DECOMPOSE AND RECOMPOSE THE UNIVERSE ACCORDING TO OUR MARVELLOUS WHIMS, to entitle the powers of the Italian creative genius and his absolute pre-eminence in the world.

The Futurist Cinema (September 11, 1916)

Werner Graeff

1901 Born in Wuppertal-Elberfeld
1921 Student at the Bauhaus
1922 Member of the 'De Stijl' Group and the 'November Group'
1927 Design for two abstract animated films. International Traffic (September 1927) — the first free-form animation ever shown in a cinema. (A section of the animation, featuring the words "Films in Freedom", was included in the internationally famous "Wuppertal Trade Fair" of 1927, which was the basis for the film.)
1923 Co-publisher and editor of the journal GI
1927 Press chief for the Werkbund Exhibition 'Die Wohlfahrt', Weissenholz Estate, Stuttgart
1930 Teacher of photography at the Reimann School, Berlin
1957 General Secretary to the 'International Congress for Design', Berlin
1959 Independent painter, Essen
1970 Lives in Maelheim-Ruhr

1922 Partitur I (plan for a film, finally realised by Graeff in the 1960's)
1922 Partitur II (plan for a film, realised in the 1950's)

In the course of time confusing legends have arisen on the topic of abstract film, which in the interests of historical truth must be corrected by the few knowledgeable contemporaries still living. In my case, I became an eyewitness in Spring 1922. Theo van Doesburg, editor of the Dutch journal De Stijl, whose youngest collaborator I was, introduced me to two elder colleagues and collaborators on De stijl: the Swedish painter Viking Eggeling and the Berlin painter Hans Richter. These two had become acquainted in Dada circles in Zürich toward the end of the First World War and had then worked together for about two or three years until for various reasons there was a fundamental rift between them. They remained that way up until Eggeling's death in 1925.

In 1922 the abstract scroll-pictures was provided by the marvellous Old Chinese picture-scrolls representing scenes from nature, such as for example the (ingeniously abbreviated) representation of 'The course of the Yangtze River from its source to its mouth'. Chinese picture-scrolls are rolled and unrolled with both hands using two spoons with handles, so that one has continually new scenes successively before one's eyes. The effect is almost filmic! So Eggeling soon had the idea of demonstrating the development of abstract forms or of groups of forms on drawn picture-scrolls by presenting selected phases of development from his fairly complex abstract creations — high points in the unfolding of movement were fixed on a picture-scroll. He made vague connections with a kind of optical music, since at the time Eggeling as well as Richter liked using concepts from musical creation: orchestra, orchestration, symphony, instrument, fugue, counterpoint, especially the term 'score' — although precisely a distinguishing feature of a score, namely the exact notation of time and the flow of movement, even for the many 'instruments' which they simultaneously had appeared, was still perfectly lacking. All this was indeed reserved for later supplement. Soon they discovered that the medium adequate to their dreams was the hand-drawn animated film. Thus, around 1920, the idea of the abstract film was born.

Not, however, its first realisation. One would still have to wait some years for that. For at the time they both lacked the technical expertise (and, indeed, the least idea of the unspeakable trials and tribulations involved in work at the animation-bench). They also lacked the financial means. And so they got no further than isolated experiments which they had carried out by specialists. Moreover they usually found the experiments disappointing. I can relate the following concerning Richter's astonishing technical ignorance (up until Spring 1922). Upon examination of his last publication in De Stijl (February 1922), it occurred to me that this piece, then entitled Fragment of a Heavy-Light Film Composition, consisted of a series of ten (in part very complicated) drawings in the upright format, and I realised that I must have before me a case of a technical necessity unknown to me.

Now when I visited Richter a short time later for the first time, he was working precisely on a new 'film score' — in later years named Fugue in Red and Green, mistakenly dated 1922. It was already completed in 1922 at the time of my first visits. Since here too a further sequence of upright formats is presented as 'film moments', my first question was: 'Why are they all upright formats — when the cinema-screen is horizontal?' Richter was quite taken aback. 'It hadn't occurred to me!' And he regarded me henceforward as 'his technical genius'!

From then on he designed 'film moments' in the horizontal format 3:4. Fugue in Red and Green of 1922 he imagined as predominantly white-on-black animated film, the positive copy then had to be coloured red and green — frame-by-frame! — as colour film did not yet exist. He hoped that irregularities in the colouring would not be visible against the black background. At that time I knew as little about film as he did; but I had taken photographs since boyhood and was also conversant with slides. So I well knew that there can never be a totally dark background during projection, and that as a result every wash of colour into the black over too shaded a white line will remain visible. Thus I explained that this plan was hopeless, and strongly advised that in each case one only allow a single colour (at least, a single figure) to appear on the screen, then the second colour alone, then perhaps the first again — and so on. In order to explain more precisely what I meant by this, I composed my first Film score 1/22. It dealt with the graphic notation of very simple operations in a given tempo and rhythm.

As a unit of time — as a mesure, so to speak — I fixed upon three-quarters of a second. As only a single colour was to appear on the screen at a time, it had proved possible to colour short lengths of film red or blue or yellow.

In Autumn 1922 I wanted to sketch out a further 'film score' — purely in black-and-white. The occasion was the renewed failure of Richter's film experiment. Among the several forms co-present in the image, the largest had to diminish, another increasingly enlarge. Without further direction, it is not extraordinary that the animator reduced the larger figure (a square) entirely from shot to shot, and allowed the second figure (a rectangle) respectively to grow by corresponding amounts.

The effect of this experiment was of disappointment to Richter; the figures seemed to draw together or rather to stretch, when on the contrary a spatial operation had been in his mind. The square, as it became smaller, should have disappeared in the distance — it simply shrank on the surface, as it were on the spot. Even on the most primitive animation bench an effect of perspective could be achieved through increasing or decreasing the size of the drawn figures according to a 'geometrical progression' (instead of an arithmetical progression), as I was able to explain to him.

In view of the disappointing preliminary experiments carried out by Eggeling and Richter up until 1921-2, I advised that henceforward the (in my opinion) much too complicated designs be left aside and that one began with extremely simple compositions.

As an example of a quite simple experiment, in which only a single figure at a time — none other at the same time — should appear on the image, in 1922 I composed my Film score 1/22. It was published the following Spring (De Stijl / Volume 5, 1923) together with precise explanations and descriptions concerning timing and rhythm and has since been repeatedly reprinted and translated.

In the early twenties I could produce practically nothing, and besides I had other work to do. Not until 1958 was I able to realise this little composition with my students on a home-made animation-bench at the Folkwang Werkkunschule in Essen. In the process we exactly followed the score published thirty-five years previously. The effect precisely corresponded to these notions from long ago.

Werner Graeff

Notes on the Film Score Composition 1/22

Fundamental to the design of all film equipment is the screen-ratio 3:4.

In the drawing the different formats of the black areas merely indicate the different durations of the relevant procedures. (For example, in...
IV the time-unit (¼sec.), in VI and VII, twice, half a time-unit (½ + ½ sec), in XLII — XCIV, three times, one-third of a time-unit (¼ + ¼ + ¼ sec); in I two units of time (½sec), in XIX 4 units of time (3 sec) etc., etc.,

In IV we see the largest white square to be projected on the screen (equivalent, in large theatres, to a square with sides 10 metres in length).

This largest white square suddenly appears in I and simultaneously begins to diminish to the size of a dot. The process of reduction, however, is not linear but rather occurs by a geometric progression, which is the suggestion of a vertical movement into the depths of the screen. (Central projection of a uniform motion).

In the darkness of the auditorium exact geometric form possesses an astonishingly monumental quality in terms of height and depth, for the indications of scale with which the spectator is familiar (house, tree, chair, or person) here fall away, the movement is one of extraordinary speed and energy. Procedure I lasts 1½ secs.

The Same procedure in II and III

In IV the largest square appears for the fourth time and remains static (to the spectator’s surprise!) After ½ sec a sudden reduction commences, breaking off after a further unit of time (leaving a square of medium size). In IV and VII, two quite brief and abrupt appearances of the same square and so on.

The moments of darkness VIII and XXX do not work as a pause (rest), but as tension; especially in XXX, since the spectator has entered a state of extreme excitement during the preceding moments XX to XXIX. XLV to LII: unexpected positioning in space.

In this composition an attempt is made, through elementary optical means, and by elementary use of film technique, to make powerful impressions, of an almost physical nature (blows, rapture, pressure, etc.) ("Schiagen, Reisen, Drucken etc.") upon the spectator. The calculated alternation of partial and total surprises plays the major role in this process.

Trans. Phillip Drummond

Arnoldo Gianna

see Futurism

Duncan Grant

1885 Born in Inverness-shire
1902-07 Studied art in London, Florence, Paris
1911 Member of the Camden Town group
1912-13 Co-director of the Omega Workshop
1917-18 Continued painting until his death

1914 Abstract Kineti Colleage Painting with Sound (a scroll painting 45cm long by 28cm high)

The painting was made in 1914. On 25 August 1914, Vanessa Bell wrote to Roger Fry from Ashenam House, Sussex (Charleston Papers, King's College, Cambridge): ‘Duncan and I do nothing here but paint. He has started on a long painting which means to be rolled up after the manner of those Chinese paintings and seen purely by degrees. It is purely abstract. In a letter to Fry from Ascham, dated 1 September 1914, she added: ‘Duncan has been doing most lovely still-lifes besides his long roll.’ In reply to the question whether Chinese scroll painting was an influence on the making of his scroll the artist wrote (June 1974) that Chinese scroll painting ‘suggested that movement played a great part in establishing the relationship of pictorial forms, in Chinese art mainly landscape forms, in my attempt more purely abstract.’

In Flowers of the Forest (1955 pp 34-7) David Garnett describes how he took D. H. Lawrence to Grant’s studio on 26 January 1915. During the visit ‘... Lawrence began to explain to Duncan what was wrong with his painting. It was not simply that the pictures themselves were bad — hopelessly bad — but they were worthless because Duncan was full of the wrong ideas... Finally, in despair, Duncan brought out a long band of green cotton on two rollers. I stood and held one roller vertically and unwind while, standing a couple of yards away, Duncan wound up the other, and a series of supposedly related, abstract shapes was displayed before our digested visitors... Next day Lawrence wrote: ‘We liked Duncan Grant very much. I really liked him. Tell him not to make silly experiments in the futurist line with bits of colour on moving paper...’

...It seems certain that a memory of the visit to Duncan’s studio inspired the passage at the end of Chapter XVIII of Lady Chatterley’s Lover. Mellors, the gamekeeper hero (Lawrence), is taken to the studio of Duncan Forbes, a dark-skinned taciturn Hamlet of a fellow with straight black hair and weird Celtic complex of himself. His art was all tubes and valves and spirals and strange colours, ultra-modern, yet with a certain power, even a certain purity of form and tone; only Mellors thought it cruel and repellent.

The making of the scroll, including the concept of its moving with musical accompaniment, came about because the artist read in a newspaper of paintings being made in London concerned with the interaction of music and colour. He associated these with an event at the Queen’s Hall, which he thinks he did not attend, which was publicised or reported in the papers as involving music being played while colour in movement was projected on a screen. It seems probable that these memories relate to the work of A. Wallace Rimington and of Scriabin. The programme note, by Rosa Newmarch to the Symphony Concert given at the Queen’s Hall on 1 February 1913 (which was reprinted in The Musical Times, 1 April 1914) stated that Scriabin had invented a ‘Fastiera per Luce’ or keyboard of light with which to company his ‘Prometheus’ by visual effects, but that the apparatus was not yet ready to be transported for practical purposes. ‘Prometheus’ was performed at the Queen’s Hall on this occasion, and on 14 March 1914, without visual effects. Under the heading ‘Colour Organ at Queen’s Hall’, The Times, of 21 March 1914, p.10, reported: ‘Sir Henry Wood has made arrangements with Professor Wallace Rimington to give a performance of Scriabin’s “Prometheus” with the “colour organ” at a Queen’s Hall Symphony Concert early next season. The “colour organ” was described in the Times yesterday.

In his Colour-Music, the Art of Light, London 1926, A. B. Klein wrote ‘the “Prometheus” was performed in Moscow in 1911 with colour-projection apparatus which apparently failed to function, and it was not until March 20, 1915 that it was performed at Carnegie Hall, New York, with the Clavier à Lumieres. The conductor was Modest Altschuler...’ (p.44). In a footnote to this passage, Klein added ‘“Prometheus” was to have been accompanied by Rimington’s colour organ in London in 1914, but the War and Scriabin’s death prevented this plan from being realized. A. B. Klein’s own work was concerned with the relation between colour and music. In 1926 he recalled (idem, p.25) ‘the writer was led to an active interest in the subject of an art of light by a study of the late works of Turner. Having concluded that an art of abstract painting was the next logical step in the development of the power of the art, a series of paintings was exhibited in London early in 1912... under the general title of “Compositions in Colour-Music, and studies in line and shape”’

Tate Gallery Report 1972-4

Alice Guy

1872 Born
1895 Personal secretary to Léon Gaumont, probably accompanied him to initial screening of the Lumière’s new invention — cinema
1896 Began making films under Gaumont’s auspices
1907 To Berlin with husband Herbert Blache, marketing Gaumont products
1910 To New York, again directing films for Gaumont
1913 Established her own production company, Solax Film Corporation, in Fort Lee, New Jersey
1922 To Hollywood, where Blache seeks work in the film industry and Guy lectured on early film history
1949 Return to Europe for several years
1965 Died in New Jersey

(selected filmography)
1896 Fée au Choux
1896-98 Les petits voleurs de bois vert

81
Ludwig Hirschfeld-Mack

1896-98 La Momie
1896-98 Le Courrier de Lyon
1896-98 Le Cake-Walk de la Pédale
1896-98 Le Gourmand effrayé
1896-98 Deménagement à la cloche de bois
1898 Esmeralda
1898 Faust et Mélisinde
1898 Venètia
1898 L’Enfant de la Barrière
1898 Passion du Christ

Ludwig Hirschfeld-Mack

1933-5 Development of the 'reflective colour-play' a hand-operated light-play projection (with eight lamps and stencils)

1935 Emigrates to England, continues teaching

1940 Teacher in Penryn Creek, Victoria, Australia

1965 Died in Sydney

The reflective colour displays have developed directly from the need to highlight certain forms or parts within an image which may require a movement through their relationship, into an actual continuous movement. Let us look at paintings by Kandinsky or Klee: all the elements for actual movement - tensions from plane to plane to space, rhythm and musical relationships - occur in the so-called 'reflective colour displays'. A new technique - direct colour projection onto a transparent screen - has enabled us to achieve colours of the most glowing intensity and to create movement by the means of light, so that the colours appear in a new, sharp, pointed forms, in triangles, squares, polygons, now in rounds, circles, arches and undulations. By radiating over the cones of light, which help to make the movement part of the composition, it is possible to make the light-fields overlap and to effect optical mixtures of colour. The working of the apparatus follows an exact score. We have been working for three years on the so-called 'reflective colour display'. The technique we have developed has had the advantage of the varied resources of the workshops at the Bauhaus as well as our analysis of the representational and spatial means of the film, on which we are engaged even before the camera displays were created. I remember the overpowering impression of the first film I saw in Munich in 1912; the content of the film was tasteless and left the totally unmoved - only the power of the alternating abrupt and long drawn-out movements of light-masses in a darkened room, light varying from the most brilliant white to the deepest black - what a wealth of new expressional possibilities. Needless to say, these primary means of filmic representation - moving light arranged in a rhythmic pattern - are totally disregarded in this film as it is in modern films, in which time and space are the dominant elements of the action plays the principle part. Despite the fact that the music, quite regardless of the film-play, was playing something different, it struck me that a film-play without musical lacked something essential, a fact which was confirmed by the restessness of the others present. I felt at last an unbearable oppression which lasted when the music started again. I account for this observation as follows; the temporal sequence of a movement can be grasped more readily and accurately through acoustical than through optical articulation. If, however, a spatial delineation is organized in the presence of an actual movement, understanding of the temporal sequence will be aided by acoustical means. The regular ticking of a clock gives a more immediate and more exact time of the optical appearance, isolated from sound, of the regular movements of the small hand of the watch. This observation also and others, such as the way in which we are absorbed in the element of time when bells ring nonstop, suggests that the above proposition is correct. Anyway, in recognition of this necessity, I have written music to accompany some of the colour-displays. Lamps, templates and the other auxiliaries are moved in time with the movement of the music, so that the temporal articulation is clearly stated by the acoustical rhythm, the optical movement as they unfold contract, overlap, rise and reach climax, etc., are undelineated and deformed. The formal compositional means are: the moving colour point, the line and the plane. Each of these elements may be moved in the desired direction and at the desired speed, enlarged or reduced, projected more brightly or more dimly, with sharp or unresolved lines, can change colour, can merge with other coloured forms so that optical mixtures occur at the points where the colours overlap (e.g., red and blue become purple). One element may be made to develop out of another, a point may become a line, planes may move so that the plane takes on any desired form. By using dissolving mechanism at the source of light and by the use of resistance we can make both singel and larger complexes of colour forms emerge gradually out of the black background and intensify until they reach the extreme of brilliance and coloured luminosity while other complexes simultaneously disappear and dissolve gradually into the black background. Part of the composition may be made suddenly to appear or disappear by switching circuit-breakers on or off. These elementary means offer an endless wealth of variations and we strive to use our exact knowledge of them to achieve a fugue-like, firmly articulated colour-play, which shall proceed at any given time from a specific theme of coloured forms.

We see in the reflected light-displays the powerful physical and psychical effect of the direct coloured beams combining with rhythmic accompanying music to evolve into a new artistic genre and also the proper means of building a bridge of understanding between the many who remain bewildered in the face of the painters' abstract pictures and the new aspirations in every other field, and the new views from which they have sprung.

Kurt Kranz

1910 Born in Emmenich, Germany

1919-22 Studies in composition at the Staatsakademie in Berlin

1920 First films: Der Anschluss, Das Spiel der Farben

1922-23 durchaus, kein Arznei

1923-4 Composition on film, Berlin, with Herbert Brandt

1924-25 Composition on film, Berlin, with Herbert Brandt

1926-28 Die Farben der Musik, Berlin, with Herbert Brandt

1928-30 The Art of Film, New York, with Herbert Brandt

1930-32 Composition on film, Berlin, with Herbert Brandt

1930-32 Composition on film, Berlin, with Herbert Brandt

1930-32 Composition on film, Berlin, with Herbert Brandt

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1930-32 Composition on film, Berlin, with Herbert Brandt
downright inadequate, even if it is clear, that the purely colourful must prevail over this in the first place harmonic music. I do not see a progressive outlook in Laszlo’s works. It is a union between romantic reverie and romantic science. The works of Hirschfeld from the Dessau Bauhaus I find infinitely purer and more impressive, although or perhaps because they stem from a more primitive outlook. For we do not languish after ever finer pleasures, as Laszlo says, we only want what is necessary.

Max Butting
Sozialistische Monatshefte, 1926, pp 881-2

Jalu Kurek
1904 Born in Cracow
Studies at the Jagiellen University of Cracow
Active as poet and journalist
1923-7 Collaborator on the avant-garde journal Zwieblica, edited by Tadeusz Peiper
1931-3 Publisher and editor of the journal Latin, in collaboration with Julian Przybysz and Jan Brzekowski (members of the ‘a.r’ Group)
Lives in Cracow
1933 OR

Len Lye
1901 Born in Christchurch, New Zealand
1921 Emigrated to Australia
1925-44 Emigrated to London, worked extensively with the GPO Film Unit under John Grierson
1944 Emigrated to New York, where he continues to live, concentrating his work on kinetic sculpture.
1928 Tusalava 9 mins
1935 Colour Box 5 mins
1935 Kaleidoscope 4 mins
1936 The Birth of the Robot (with Humphrey Jennings) 6 mins
1936 Rainbow Dance 4 mins
1937 Trade Tattoo 5 mins
1937 Colour High 2 mins
1937 Swinging the Lambeth Walk 4 mins
1937 N or NW
1939 Profile of Britain
1940 Musical Poster 3 mins
1941 When the Bells Rang
1942 Kill or Be Killed 15 mins
1944 Camera Work at War 7 mins
1944-51 seven films produced for the ‘March of Time’ series
1952 Color Cry 1 min
1957 Rhythm 1 min
1958 Free Radicals 3 mins
1961-66 Particles in Space 5 mins
In Rainbow Dance the technical purpose was to use only the colours of the Gasparcolor film stock. These are pink, yellow, and blue dyes which exist in three layers on the film celluloid itself. (The pink, yellow, and blue of any image is protected by three black and white photographic records from the printing light.) The printing light ‘knocks out’ the unprotected pink, yellow and blue dyes which are eventually dissolved or fixed in the laboratory tanks, according to which portions were exposed or unexposed to it.

The difference in colour technique for this film as compared with the showing of a straight colour film is that all colour records were taken as separate films. No colour was used on the sets, where every object was painted in terms of black and white. For instance, a green hill (a ‘prop’ hill) was painted white and photographed continuously for the red record, painted dark grey and photographed for the yellow record, painted a light grey, and finally photographed for the blue record. This meant the hill was split into three records for the required densities of the pink, yellow and blue dyes of the Gasparcolor film stock. A silhouette of a man was superimposed over each colour record in densities according to the dye required for his colour.

This method of colour control meant that our colour would be clean and not suffer from any opacity of photographic colour light. In other words, an artist separated those colours instead of losing the effect of the colour filters. So that all colours for the objects were pure colours achieved without the necessity of reproducing colours of different pigmentation by the colour dyes of the film stock.

Although a strong sensation of colour-flow was attempted in both the films Colour Box and Rainbow Dance there are differences in technical and pictorial treatment between the two. Colour Box was painted straight on to the film celluloid and printed in the Dufay colour system direct from this ‘master’. Rainbow Dance is a combination of black and white photographic records equaling densities of colour which are printed on Gasparcolor film stock. In pictorial treatment, the differences lie in the use of colour. Colour was used in Colour Box in an objective way, and in Rainbow Dance in a subjective way.

In Colour Box the colour was ‘on the surface’ in an arabesque of colour design (apparently motivated by the light arabesque quality of the simple dance music it accompanied) Whatever movement occurred was colour movement alone.

In Rainbow Dance the colour is used in a ‘spatial’ way so that it comes up to the eye or recedes from it or vanishes and re-appears in definite colour rhythms. In fact, colour is made to turn inside out in movement regardless of the movement of the object or objects on which it is seen. Here the colour movement is a form of counterpoint to the movement of the object carrying the colour — often this counterpoint of colour-flow dominates the movement of the object to such an extent that the object becomes merely an element of the colour movement, instead of the usual circumstance of colour being merely an element in an object enacting a strong literary role. In other words, the colour movement dominates all other movement, both pictorial and cinematic.

Len Lye ‘Experiment in Colour’, World Film News, 1933

Fernand Léger
1881 Born in Argentan, France
1908-09 After training as a draftsman/architect, became influenced by Cezanne and joined the Cubist circle which included Delaunay, Chagall, Rouvey, Apollinaire, and Dufay.
1914-16 Military service, followed by an intense period of painting based on machine and urban motifs.
1922 Saw Gance’s film La Roue and designed a poster for it, sparking involvement in film-making.
1924 Approached by Dudley Murphy, who proposed the film which became Ballet Mécanique
1955 Died at Gif-sur-Yvette, France
1924 L’Homme (set design and construction and poster)
1924 Ballet Mécanique (with Dudley Murphy)
1944 Dreams That Money Can Buy (dir: Hans Richter with contributions by Léger, Ernst, Duchamps, Calder, Man Ray, Richter; Léger’s Episode: ‘The Girl with the Prefabricated Heart’)

On Ballet Mécanique: Its story is simple. I made it in 1923 and 1924. At that time I was doing paintings in which the active elements were objects freed from all atmosphere, put in new relationships to each other.

Painters had already destroyed the subject, as the decorative scenario was going to be destroyed in avant-garde films. I thought that through film the neglected object would be able to assume its value as well. Beginning there, I worked on this film. I took very ordinary objects that I transferred to the screen by giving them a very deliberate, very calculated, mobility and rhythm.
Contrasting objects, slow and rapid passages, rest and intensity — the whole film was constructed on that. I used the close-up, which is the only cinematographic invention. Fragments of objects were also useful; by isolating a thing you give it a personality. All this work led me to consider the event of objectivity as a very new contemporary value.

The documentaries, the newsreels are filled with these beautiful 'objectives facts' that need only to be captured and presented properly. We are living through the advent of the object that is thrust on us in all those shops that decorate the streets.

A herd of sheep walking, filmed from above, shown straight on the screen, is like an unknown sea that disorients the spectator. That is objectivity.

The thighs of fifty girls, rotating in disciplined formation, shown as a close-up — that is beautiful and that is objectivity. Ballet Mecanique cost me about 5,000 francs, and the editing gave me a lot of trouble. There are long sequences of repeated movements that had to be cut. I had to watch the smallest details very carefully because of the repetition of images.

For example, in 'The Woman Climbing the Stair', I wanted to amaze the audience first, then make them uneasy, and then push the adventure to the point of exasperation. In order to ‘time’ it properly, I got together a group of workers and people in the neighbourhood, and I studied the effect that was produced on them. In eight hours I learned what I wanted to know. Nearly all of them reacted at about the same time.

'The Woman on the Swing' is a post card in motion. To get the material for it, I also had complications. It's very hard to rent straw hats, artificial legs and shoes. The shopkeepers took me for a madman or a practical joker. I had put all my materials in a chest. One morning I noticed that someone had filled all my junk. I had to pay for everything and this time buy other materials. An epch alive with exploration, risk, which perhaps is ended now. It continues through animation, which has limitless possibilities for giving scope to our imagination and humour.

Norman McLaren

1914 Born in Stirling
1933-36 Glasgow School of Art
1936-39 Worked with GPO Film Unit in London, also went to Spain with Ivor Montagu in 1936 to film the Civil War.

1939-41 Worked on animation in New York
1941 Joined the National Film Board of Canada, to create an animation unit
Lives in Canada

1933 untitled 3 min
1933 Seven Till Five 10 min
1935 Cameras Makes Whoopee 15 min
1935 Colour Cocktail 5 min
1935 Five Untitled Shorts 20 min
1936 Hell Unlimited (with Helen Biggar)
1936 Defense of Madrid (directed by Montagu, photographed by McLaren) 50 min
1937 Book Bargain 10 min
1937 News for the Navy 10 min
1937-38 Mony a Pickle 2 min
1938 Love on the Wing 5 min
1939 The Obedient Flame 20 min
1939 Greeting Short for NBC-TV ½ min
1939 Allegro 2 min
1939 Rhumba 2½ min
1939 Stars and Stripes 3 min
1940 Dos 2½ min
1940 Loops 3 min
1940 Boogie Doodle 3½ min
1940 Spook Sport (with Mary-Ellen Buta) 9 min
1941 Mail Early 2 min
1941 V for Victory 2 min
1942 Five for Four 4 min
1942 Hen Hop 3 min
1943 Dollar Dance 3½ min
1944 Alouette 3 min
1944 C'est l'Aviron (with George Dunning)
1944 Keep Your Mouth Shut (with George Dunning) 3 min
1945 Le Haute sur Les Montagnes 3 min
1946 A Little Phantasy on a Nineteenth Century Painter 3½ min
1946 Hippity Hop 2½ min
1947 Fiddle-de-dee 3½ min
1947 La Poudre Grise 5½ min
1948 Begone Dull Care (with Evelyn Lambert) 7½ min
1951 Round and Round 10 min
1951 Now is the Time 10 min
1952 A Phantasy 7 min
1952 Neighbours 8 min
1952 Two Bagatelles 2½ min
1954 Blinkety-Blank 5 min
1956 Rhythmic 8½ min
1957 A Chaity Tale 9 min
1958 Le Mele 4 min
1959 Serenade 3 min
1959 Short and Suite 5 min
1959 Mail Early for Christmas ½ min
1960 Lines Vertical 5½ min
1960 Opening Speech 7 min
1961 New York Lightoard 8 min
1961 New York Lightboard 8 min
1961 Lines Horizontal (with E. Lambert) 5½ min
1964 Canon 10 min
1965 Movie with E. Lambert 5½ min
1967 Pas de deux 13 min
1969 Spheres 7½ min
1971 Synchrony 7½ min
1972 Ballet Adagio 10 min
+ 40 works 1939-72

During your film career, how many influences have you undergone?
I can discern four influences. First of all Oskar Fischinger, with his Hungarian Dance No. 5, because this film gave me the courage of my convictions. I wanted to make abstract films — not necessarily abstract films — but to compose abstract images based on music, and at that time I did not know how to go about it. At home, I constructed coloured lights and moved them by hand over paper. But when I saw Oskar Fischinger's, I told myself that the solution was to make abstract films. Then there was Emile Coell. I saw Drama among the Puppets (1908), and was struck by the purity, simplicity of line, and the wonderful metamorphoses. I am not forgetting Alexandre Alexeieff and his Night on the Bare Mountain (1933). What gripped me was the fertile imagination, not so much technique as the creative imagination. The bold metamorphoses and the surrealist thinking. For surrealism had left a great impression on me. Finally, Len Lye and his technique of drawing directly on to the film. That is all. But I add two general influences: Fudovski and Eisentein...
the Wing but I was beginning to feel frustrated by making documentaries. I wanted a little fantasy. I suggested making a publicity film on the new air mail service...

The film was largely improvisation. The music included a wedding march — their characters. But I had to use a letter for reasons of economy. So I started with two letters and then I tangled them into two characters, because surrealism had liberated my thinking. With surrealism, you can alter all change anything into anything.

Then, it came to the music of Jacques Ibert, to the characters and objects arise? Is it the music which gives you the inspiration for the things?

No, I already had the idea of making a film with letters and changing letters into characters and even to transform them into different things. Then I went in to a recording house and listened to a lot of records. At that moment I was not very familiar with classical or even semi-classical music. I didn’t quite know what to ask for. I told the salesman that I wanted light, fast music. He brought me about twenty records that I listened to quietly. When I heard Jacques Ibert’s ‘Zontenality’ — it is a suite — I very much liked the Waltz tune, but I found them too monotonous. Finally I chose the wedding march.

Was the film shown to the public?

No. For two reasons. Firstly, when the Minister of Posts saw the film, he found it too erotic and too Freudian. Then the negative was destroyed in an air raid on London. After that I left for New York. It was in 1940.

El Lizisztky

1895 Born in Smolensk
1909-14 Studies engineering in Darmstadt
1919 Joins constructivist group in Moscow
1921 Professor at State Art School, Moscow; also in close contact with Moholy-Nagy, Mies van der Rohe, and van Doesburg
1923-25 Lived in Switzerland
1925-26 Lived in Hannover
1928 Returned to Moscow
1941 Died in Moscow

The Electro-mechanical Show

We have here the fragment of a work which arose from the necessity of overcoming the closed box of the theatre stage (Moscow 1920-21). Nobody pays any attention to the great plays in our cities, for every ‘somebody’ is himself in the play. All energy is used for some individual purpose. The whole is amorphous. All energies must be organised into a unity, crystallized and put on display. This is how the work of art is produced — if you want to call it art. We build a framework which is open and accessible from all sides; this is the show machinery. This structure offers the bodies in the game every possibility of movement. Therefore its component parts must be moveable, revolving, extendable etc. Everything is fluted so that the moving bodies in the game are not concealed. The game bodies themselves are placed as needed or desired. They glide, roll, float in and over the structure. All the parts of the structure and all the game bodies are set in motion by electro-mechanical forces and devices and the whole of this central operation is in the hands of one individual. He is the one who shapes the show. His place is at the centre point of the framework, at the switchboard of all energies. He directs the movements, the noises, the light. He turns the radio loud speaker on and produces the din of the railway station, the frenzy of Niagara Falls or the hammering of a steel mill on stage. In place of individual bodies, the anchor man speaks into a telephone connected to an arc-lamp, or into other types of apparatus which change its voice according to the nature of the individual figures. Electrical themes light up and are extinguished. Beams of light follow the movements of the bodies in the game, refracted by prisms and reflections. In this way, the anchor man brings the most elementary process to its highest climax. For the first performance of this electro-mechanical show, I used a modern play which was nonetheless written for the stage. It was the futurist opera Victory Over The Sun by A. Kruchenykh, a leader of the most contemporary Russian poetry. The opera was first performed in Petersburg in 1913. The music came from Matjuschin. Malevitch painted the decorations (the model — a black square). The sun, as the symbol of elemental energy, is torn down from the sky by modern man who, thanks to the power of his technological mastery, has created his own sources of energy. The idea of the opera is woven into a simultaneity of events. The language is trans-rational. Some of the singing parts are sound poetry. The text of the opera forces me to keep something of the human anatomy in my figures. The colours of the individual parts of my plates are to be seen as material equivalents. This means: in the performance the red, yellow or black parts of the figures are not painted correspondingly but rather presented in equivalent materials, like, for example, raw copper, unpainted iron etc. The development of the radio in recent years, of loudspeakers and film and lighting techniques, in addition to a few discoveries that I have made in the meantime, have all made the production of these ideas much easier than it seemed to me in 1920.

El Lizisztky

Lazlo Moholy-Nagy

1895 Born in Borsod, Hungary
Independent law studies in Budapest
1919 Gives up his occupation completely in order to be a painter; joins the “MA” Group
1920-3 Berlin. Publishes in numerous avant-garde journals, paints, creates the first photograms, and stereometric sculptures out of new materials. Begins to design his Light-Space Modulator.
1923-8 Master at the Bauhaus in Weimar and Dessau, editor of the Bauhaus Books, work on typographic, stage pieces, photo-collages.
1928-34 An independent painter in all modes in Berlin; active as an exhibition organiser
1930 Completion of his kinetic light-sculpture ‘Light-Space-Modulator’ and the single ‘absolute’ film: Lightplay: Black-White-Grey
1935-7 London
1937 Chicago; foundation of the New Bauhas (from 1939 at the Institute of Design), plexiglass sculptures
1946 Died in Chicago

1926 Berlin Still-life
1929 Marseille Old Harbour
1930 Lightplay: Black-White-Grey
1932 Sound ABC
1932 Gipsy
1933 Architecture Congress Athena
1935 Life of the Lobster
1936 New Architecture of the London Zoo

As yet there is no tradition for the use and control of motion films. Our practical experience in this matter barely covers a few decades. Ever the first principles of this work remain to be evolved. That is the reason why motion is still so primitive handled in the majority of films.

Our eyes are as yet un schooled to the reception of a number of sequences in simultaneous motion. In the majority of cases the multiplicity of phases of these interrelated movements would, however well controlled, still produce an impression, not of organic unity, but of chaos.

For that reason experiments of this kind — however important aesthetically — will for the time being have little more than technical or educational interest. Though in some respects rather questionable, Russian montage is so far the only real advance in this sphere. The simultaneous projection of a number of complementary films has so far not been attempted. Montage by no means exhausts the possibilities inherent in motion.

The Russian directors’ sense of motion is impressionistic rather than constructive. Russian montage is particularly successful in the use of associative impressions (which are, however, intentional and not accidental). Through rapid cutting often also of spatially and temporally distinct shots it created the necessary links between the individual situation and the whole.

The constructive montage of the future will give more attention to the film as a single entity of light, space, motion, sound — than to the films as a sequence of striking visual effects.

Eisenstein (General Line), Werthoff (The Man with the Movie Camera) and Turin (Turksih) have already made concrete advances in this direction.

Moholy-Nagy: ‘Problems of Modern Film’, New Cinema, No. 1, 1936

The practical prerequisites of an absolute filmic art are excellence of materials and highly developed apparatus.

A prime obstacle to realisation has hitherto lain the fact that absolute films have been made either by laboriously drawn cartoons or by light shadow plays which are difficult to shoot. What seems to be needed is a camera which will shoot automatically or otherwise work continuously.

The number of light-phenomena can also be increased by using mechanically movable sources of light.

The analogy of light composition in the still picture with or without camera is bound to suggest a variety of devices in the making of a film

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organised in that way. Thus little movable plates with slits (patterns, etc.) can be slipped between the course of light and the light-sensitive film so that there are continual variations in the exposure of the film. This principle is very flexible and can be used equally in representational (object-) photographs and in absolute light composition.

By studying existing work and asking the right questions one could discover innumerable technical innovations and potentialities. Analysis of photomontage relationships alone must lead to radically altered new forms. But no amount of study, experimentation, speculation, means anything if it does not spring from inclination and concentration, which are the bases of all creative activity, including photography and the film. We have left behind all that unavoidable fumbling with traditional optical forms; it need no longer impede the new work. We know today that work with controlled light is a different matter from work with pigment.

The traditional painting has become a historical relic and is finished with. Eyes and ears have been opened and are filled at every moment with a wealth of optical and phonetic wonders. A few more vitally progressive years, a few more ardently followers of photographic techniques and it will be a matter of universal knowledge that photography was one of the most important factors in the dawn of a new life.

Moholy-Nagy, Painting, Photography, Film, Cambridge, Mass, 1973, p.44.

Kazimierz Poddasdecki
1904 Born in Zabierzow near Cracow. Studied at the Cracow school of Industry
1926-7 Artistic editor of the second series of the journal Zwrotnica
1931-3 Editor of the journal Lina
1932 Co-founder of the Cracow Studio for Polish Avant-Garde Film—SPAF, interested above all in painting, constructivist typography, photomontage, and abstract film. After World War Two largely preoccupied with painting.
1970 Died in Cracow.
1933 Beton (with Janusz Brzeski)

Man Ray
1890 Born in Philadelphia
1915-21 Painter and photographer in New York, involved in 'New York Dada' with Duchamp
1921 Moved to Paris, affiliated with Dada and Surrealists
1940 Fleé from Europe, to Hollywood
1951 Returned to Paris
1976 Died in Paris
1923 Return to Reason 5 mins
1927 Emak Bakia 17 mins
1928 Estoque de Mer 15 mins
1928 Mysteries of the Chauve de Dice 25 mins

While investigating the various phases of photography in my early days in Paris, inevitably I turned my attention to moving pictures. Not that I had any desire to enter the field professionally, but my curiosity was aroused by the idea of putting into motion some of the results I had obtained in still photography. Having acquired a small automatic camera that held a few feet of standard movie film—there were no 16 or 8mm cameras at the time—I made a few sporadic shots, unrelated to each other, as a field of daisies, a nude torso moving in front of a striped curtain with the sunlight coming through, one of my paper spirals hanging in the studio, a cartoon from an egg crate revolving on a string—mobiles before the invention of the word, but without any aesthetic implications nor as a preparation for future development: the true Dada spirit. Vaguely I thought that when I had produced enough material for a ten- or fifteen-minute projection, I'd add a few irrelevant captions—movies were still silent then, but not still—and regale my Dada friends, the only ones capable of appreciating such nonsense. My neighbor and friend Tristan Tzara was the only one aware of this new diversion, followed it with interest, and later said that he was one of the few Dadaists who hadn't touched it, was time to produce something in that direction to offset all the idiocies filling the screens. I had put the camera aside, being occupied with more pressing demands, when, one Wednesday morning, Tzara appeared with a

printed announcement of an important Dada manifestation to be held the following night in the Michel Theatre. On the programme my name figured as the producer of a Dada film, part of the program entitled Le Coeur a Barbe: The Bearded Heart. Knowing pretty well by now, from similar demonstrations, the group's habit of announcing the highly improbable appearance of a well-known personality, Charles Chaplin, for example, I suggested to him, saying that I'd like to be at the affair, anyway to lend my support to it. But Tzara was serious in this case; I had some movie sequences which could be projected, and an operator with a projector had already been hired. I explained that what I had not last more than a minute: there was not sufficient time to add it. Tzara insisted: what about the Rayographs, the compositions made without a camera directly on the paper, couldn't I do the same thing on movie film and have it ready for the performance? The idea struck me as possible and I promised to have something ready for the next day.

Acquiring a roll of a hundred feet of film, I went into my darkroom and cut up the material into short lengths, pinning them down on the work table. On some strips I sprinkled salt and pepper, like a cook preparing a roast, on other strips I threw pins and thumbtacks at random, then turned the white light for a second or two, as I had done for my still Rayographs. Then I carefully lifted the film off the table, shaking off the debris, and developed it in the tanks. The next morning, when dry, I examined my work; the salt, pins and tacks were perfectly reproduced, white on a black ground as in X-ray films, but there was no separation into successive frames as in movie films. I had no idea what this would give on the screen. Also, I knew nothing about film mounting with cement, so I simply glued the strips together, adding the few shots first made with my camera to prolong the projection. The whole would not last more than about three minutes. Anyhow, I thought, it would be over before an audience could react; there would be other numbers on the programme to try the spectators' patience, the principle aim of the Dadaists.

I arrived at the theater a few minutes before the curtain went up, brought my film to Tzara and told him I was to announce it. There were no titles or captions I called the film: The Return to Reason.

Hans Richter
1888 Born in Berlin
1909 Weimar Academy of Art
1912-13 First connection with modern art and literature through Herwarth Walden's Storm. Richter distributes the Futurist Manifesto for Marinetti in Berlin
1915 Member of 'Action' (Hans Richter special issue, u 6 a 13.
1916
1915-16 Soldier; discharged as war invalid
1916 Joins the Dada Group in Zurich. First abstract experiments following brief expressionist period of painting (visionary portraits)
1918 Encounter with the Swedish painter Viking Eggeling in Zurich
1918-19 Return to Germany with Viking Eggeling, First scroll-paintings (Prelude, 1919)
1920 First attempt at film. From this point on Richter is essentially concerned with the possibilities of film (direction, production, film theory)
1923-6 Publication of the art magazine G
1940 Emigrates to USA
1942 Director of the Film Institute at City College of New York
1976 Died in Locarno

(selected filmography)
1922-24 Rhythmus 21 and Rhythmus 23 ca. 6 mins
1926 Filmstudie 4 mins
1927-28 Inflation 3 mins
1928 Race Symphony 10 mins
1928 Ghosts Before Breakfast 7 mins
1929 Tappen Magic 3 mins
1929 Everything Turns, Everything Revolves 28 mins
1944-47 Dreams that Money Can Buy
1954-57 8 x 8
1956-61 Dadascope

Walther Ruttmann
1887 Born in Frankfurt am Main
1907 Studied architecture in Zurich
1909 Studied painting in Munich
1919 Began film-making
The times we live in are characterized by a peculiar helplessness in the face of things artistic. Desperate clinging to a long out-dated way of relating to art combines with the increasing conviction that the potential of whole branches of art is dead and even that the arts have nothing at all left to say to us in the West, for they too are organic creations and therefore subject to the laws of death — if only temporarily. However neither of these attitudes — the reactionary or the sceptical — bears the hallmark of an honest argument between people of our times and their spiritual predecessors. Neither is more than a pose of helplessness when confronted by the special structure which characterizes the spirit of our time.

This specific characteristic is evoked mainly through the tempo of our times. Telegraphy, express trains, stenography, photography, quick printing, etc., though not to be valued per se as cultural achievements, nonetheless bring in their wake a new kind of control in the communication of results. Through this acceleration of information, the individual is faced with an enduring sense of being flooded with material which defies the traditional treatment. People look for help in associative analysis. The historical comparison and the drawing of an historical analogy ease and accelerate the dominance of the new phenomena. However, the understanding and digesting of these phenomena naturally suffer because of this; no doubt a concern with the times is produced, but no 'sense of the times'. For it is evident that the individual's contact with the spirit of the age cannot be ideally intimate if the new forms are handled with the glove of analogy. However, as the crushing burden caused by the peculiar tempo of the times forbids a direct, association-free, intuitive treatment of individual results, and comprehension by analogy is inadequate, so the seed grows for a radically new sort of attitude.

This new attitude is formed quite organically through the fact that, because of the increased speed with which individual data are read off, the view of the separate contents is distracted ad linked to the total sequence, which forms a curve from the different points as a temporarily self-perpetuating phenomenon. The object of our observation therefore becomes the development of time and the constantly growing physiologicality of a curve, and no longer the fixed contiguity of individual points.

It is here also that the reasons are to be found for our desperate helplessness in the face of the new discoveries of creative art. Observation which, in intellectual matters, is being forced more and more to the contemplation of a transient event, does not know where to begin with the rigid, abstracted, timeless rules of painting. It can no longer succeed in experiencing as real life the animation of a painting when it is reduced to one moment, when it is symbolized by one 'fruitful moment'.

Where does salvation lie?

Not in a reactionary violation of our intellect, not in such a way that the spirit is forced into the raiments of the Middle Ages or Classical Antiquity. Only in such a way that it is given the nourishment it demands and can digest. And this nourishment would be a wholly new type of art.

It is not a question of a new style or anything like that, but rather of producing a variety of possibilities of expression for all the known arts, a totally new feeling for life in artistic form, 'Painting with Time'.

Art for the eye, which is distinguished from painting in so far as it is based on time (like music), and that the emphasis of the artistic quality should not lie (as in painting) in the reduction of a (real or formal) process to one moment, but precisely in the temporal development of the formal. As this type of art evolves temporally, one of its most important elements is the time-rhythm of the optical event. There will appear therefore a wholly new type of artist, who has lain dormant till now and who stands roughly in the centre between painting and music. The nature of the optical event will naturally depend totally on the personality of the artist. Attempts to delineate what is to come shall be restricted to examples or suggestions.

The means of presentation is cinematography.

On the projection wall, for example, there appears a chaotic mass of black, angular surfaces, which are moving towards one another in an awkward, sluggish rhythm. After a time the image is washed by a dark, clumsy, wave-like movement, which is formally related to the black angularity. The stiffness of movement and the darkness increase until a certain rigidity is reached. Lightning-like, frequently repeated illuminations building up in intensity and temporal interrelation rip through the rigid darkness. There then develops on a particular part of the screen a star-like centre of light — the wave-like movement from the beginning appears again, but this time increasingly illuminated and much more agitated, always in relation to the crescendo of the central point of light — round, soft light blossoms forth — and glides into the black angularity of the beginning and finally reaches a blazing, happy, intense light of a dance-like movement of the whole picture, which slowly merges into a bright, joyful repose. There may then start up a menacing, dark, snake-like, creeping movement, which swells up forces back the brightness and finally evokes an extraordinary, animated struggle between light and dark — white forms in motion, galloping horses hurl themselves against the gloomy masses — a splintering results, raging ferment of light and dark elements until somehow through the victorious intensification of light, final balance and harmony are achieved.

This is an example of the infinite number of potential applications of light and dark, rest and violent action, straightness and roundness, solid mass and articulation and their countless intermediary stages and combinations. The new art will naturally not appeal to the present-day cinema audience. Nevertheless it will be able to count on a considerably wider public than painting has, for the active involvement of this art form (so far as something actually happens) is much greater than that of painting, in which the observer has to do all the hard work of reconstructing the intended animation of the apparently rigid object in the picture for himself.

I have been convinced of this for this art form for almost ten years. Only now have I become master of the technical difficulties which presentation presents, and today I know that the new art will germinate and will live — for it is a plant with strong roots, and not a mere structure.

Walther Ruttmann, round 1919 (from the literary remains)

Kurt Schwertfeger

1879 Born in Deutsch-Puddger, East Pommerania
1919-20 Studied art history and Philosophy in Königsberg and Jena
1920-4 Student at the Bauhaus in Weimar, particularly in the sculpture workshop
1921-3 Developed the Colour-Light-Play, a hand operated light play projection
1923-7 Teacher of sculpture at the Werkkunst School, Stuttgart
Member of the Berlin November Group' and of the German Werkkunst. Architectonic sculptures
1946 Professor at the High School, Alfeld/Leine
1966 Died in Himmelstür near Hildesheim

Kurt Schwertfeger, in collaboration with Ludwig Hirschfeld-Mack, was instrumental in developing coloured 'light-play' at the Bauhaus in the 1920s. See Hirschfeld-Mack for a description of this type of work.

Guido Secher

1879 Born Father was a professional photographer, Guido became an expert special-effects photographer and cinematographer
1925-43 Editor of Die Filmtechnik

(Selected filmography)
1919 The Student of Prague (as effects cinematographer)
1921 Living Buddha (as effects cinematographer)
1925 KIPOH
1926 Secrets of the Soul (as effects cinematographer)

As a preview of the objects awaiting our attention at the Ausstellung, we are first given glimpses of the latest model 35-mm cameras, some 19th century movement through Rogel's principle of the persistence of vision, and a few other pieces of museum-vintage. Following by a slightly more pictorial essay about the production of a film. As typewriters peck away, the title Drebuch, or 'shooting script', appears. Then a number of scenes illustrating various phases of film studio activity are seen, an actress applying lipstick to her lips, primitively-fractured multiple images that seem to come directly out of Ballet Mecanique. On the title "Lights", giant rheostats are shown photographed and distorted to emphasize their shiny corrugated surfaces, again recalling Ballet m'canique. Then "Auchz" is added over an equally faithful reproduction of the camera, but now a shock
effect that Leger would have enjoyed, a shot of Emil Jannings in The Last Laugh, the most popular and famous German film of the previous year. Then, finally, after some spectacularly beautiful underwater shots animated by liquid distortions, the title unwinds across the screen: "PHOTO-TOYINO. Du must zur Kion-und Photo-Ausstellung kommen!" The film ends on a light note, with a film clip from yet another famous German film: Dr. Caligari in front of his carnival tent inviting his prospective audience to come inside for the show.

Whereas Ballet mécanique attempted, as Leger has stated, "to create the rhythm of common objects in space and time, to present them in their plastic beauty," Secker's film is composed of specific objects, that is, articles of film and photographic equipment, that are presented to tell a story about film-making. The jerky mechanical rhythms of Leger's film give way in the KIPHO-Film to a liquid flow of images created by dissolves (there are none in Leger's film) and spatial overlapping through the use of prisms and mirroring devices. Thus the film lacks the harsh contrasts of form and rhythm which characterize Ballet mécanique and creates instead a constantly evolving kaleidoscope pattern of distorted images unifed only by common thematic context.

From The Cubist Cinema, Stanisł D. Lawder, p 178-180

Leopold Survage

Leopold Sturwaghe

1879 Born in Wilmanstrand, Finland
1901 Studied at Moscow Academy
1908 Goes to Paris
1913 Sequence of 104 sheets of differing sizes, which were thought of as a sequence of movement in the manner of an "objectless" film
1914 Publishes his text 'Colour, Movement, Rhythm'
1917 Apollinaire organises Survage's first one-man show
1922 Decor for Stravinsky's Maura at the Paris Opera

Colour, Movement Rhythm

Painting, having liberated itself from the conventional forms of objects in the exterior world, has conquered the terrain of abstract forms. It must get rid of its last and principal shackle — immobility — so as to become as supple and rich a means of expressing our emotions as music is. Everything that is accessable to us has its duration in time, which finds its strongest manifestation in rhythm, action and movement, real, arranged, and unarranged.

I will animate my painting, I will give it movement, I will introduce rhythm into the concrete action of my abstract painting, born of my interior life; my instrument will be the cinematographic film, this true symbol of accumulated movement. It will execute the 'scores' of my visions, corresponding to my state of mind in its successive phases. I am creating a new visual art in time, that of coloured rhythm and of rhythm colour.

(signed) Leopold Survage
Paris, 1914
(Text of a sealed document, no. 8182, deposited on June 29, 1914, at the Academy of Sciences of Paris.)

Mieczysław Szczuka

1898 Born in Moscow
1914 Studied at the Warsaw School of Art
Co-founder of the 'Blok' Group
1924-6 Edits the journal Blok with Teresa Zarnower, Henryk

Staszewski, and Edmund Müller
1927 Edits with Zarnower and Wlodzisz Wodzierski the journal
Dwiczynia
Propagates principles of Utilitarianism and Constructivism.
Interested in painting, sculpture, architecture as well as in
typographies, photomontage, and abstract film. Member of the
Polish CP.
1927 Killed in an accident in Tatra

1924 Abstract Film
1925-27 He Kills, You kill, I kill

The initiators in Poland of the notion to employ the film to compose moving abstract pictures were members of the Cubist and Suprematist groups, plus Henryk Berlew and Mieczyslaw Szczuka, Constructivists of the 'Blok' group. To begin with Szczuka retained his allegiance to the German avant-garde influence. The abstract film which he elaborated in the first months of 1924, repeatedly registering the growth and reduction of geometrical shapes, was modeled on
Eggeling's proposition. Szczuka's attitude to construction in the abstract film is illustrated by the following mini-screenplay, published in the periodical put out by the 'Blok' group in December, 1924: 'Movement as a change in place: the coming and going, but not changing, of geometrical forms, the dynamics of forms: reduction or enlargement of forms, transformation of forms, the disintegration or construction of forms. The dynamics of forms; reduction or enlargement of forms, transformation of forms, the disintegration or construction of forms. Intensity of colour. Vividness or dimness of appearance, the direction (directions) of movement (movements), and the inner-penetration of shapes. Tempo. Harmony — disharmony. Pauses.'

In about 1925, Szczuka started work on a new and undoubtedly more interesting film entitled He Killed, You Killed, I Killed in which he used typographical signs — letters and words — instead of the dynamic structure of geometrical shapes. The action of the film was to have resulted from the logical composition of a succession of sign-words which, symbolizing the states of sensitivity and inner experience, altered according to the form of the personal pronoun and the tenses of the slogan. But the author's untimely death on August 13, 1927 prevented this film from being realized.

Dziga Vertov

Dziga Vertov (Dziga Arkadevitch Kaufman)
1896 Born in Bialystok (Russian Poland)
1916-17 Studies medicine in St. Petersburg
1917-22 Photo and cinema reporter during the civil war
1922-7 Later Head of the Film Section of the All-Russian Central
Executive Committee
1922-25 Founded the Kineki Group, for which he produces 23
episodes of Kino-pravda
1924 Begins production of Kino-eye series
1954 Died in Moscow

(selected filmography)
1918-19 Kinodejelia (43 numbers)
1919 Anniversary of the Revolution
1922 History of the Civil War

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How Did It Begin?

From my earliest years. By inventing fantastic tales, poems, verse satires and epigrams.

Then, in adolescence, this turned into a passion for the montage of cinematographs and phonograms. Into an interest in the possibilities of transcribing documentary sound. Into experiments in transcribing in words and letters the sound of a waterfall, a saw, etc. In my 'sound laboratory' I created documentary compositions and music-literary word-montages.

Then, in the spring of 1918 — discovery of the cinema. Began to work for the magazine Film Week. Meditations on the armed eye, on the role of the camera in the exploration of life. First experiments in slow-motion filming, the concept of the Kino-Eye as slow-motion vision (reading thoughts in slow-motion).

...The Kino-Eye is conceived as 'what the eye does not see', as the microscope and the telescope of time, as one-eyed camera lenses, as the X-ray eye, as 'candid camera' and so on.

These different definitions are all comprehended, for the term Kino-Eye implies:

All cinemagraphic means.

All cinematographic images.

All processes capable of revealing and showing truth.

Drizga Vertov (1944)

Franciska Themerson

1907 Born in Warsaw

Studied at the Warsaw Art School

Interested in making avant-garde films with her husband, Stefan, as well as in book illustration

1935-37 Member of the Polish Film-makers Co-operative—SAF

1937 Art director of the periodical, The Artistic Film

1948 Co-founder and Art Director of the London publisher Gaborbocchus. Also engaged in set design, painting, and graphics

1930 Pharmacy (all films with S. Themerson)

1932 Europa

1935 Musical Moment

1935 Short Circuit

1938 The Adventure of a Good Citizen

1943 Calling Mr. Smith

1945 The Eye, The Ear

1935-7 Founder and member of the Polish Film-makers Co-operative — SAF

1948 Co-founder, editor, and main author of the London publication Gaborbocchus

Now active in the field of literature

Lives in London

1930 Pharmacy (all films with F. Themerson)

1932 Europa

1935 Musical Moment

1935 Short Circuit

1938 The Adventure of a Good Citizen

1943 Calling Mr. Smith

1945 The Eye, The Ear
Tony Conrad Bowed Film 1974

Taka Imura 1 sec and at Artist space N.Y. 1977
P. A. Sitney, the American critic of avant-garde film, was the first to isolate structural film as a specific tendency within the avant-garde in an article in the American review Film Culture, 47, (1969). The label, although perhaps inadequate, has stuck and the intense controversy over the concept has died down, since it is now even clearer than in 1969 that Sitney did pinpoint a real tendency. Until then, there only existed the notion of 'underground film', used as a catch-all category for all productions outside the official film-industry, i.e. erotic, poetic, formal, experimental and short films. Sitney was delineating a new direction, quite different from the mainstream of the American underground film which was mytho-poetic in nature: 'There is a cinema of structure, wherein the shape of the whole film is predetermined and simplified, and it is that shape that is the primal impression of the film... the structural film insists on its shape and what content it has is minimal and subsidiary to the outline... Four characteristics of the structural film are a fixed camera position (fixed frame from the viewer's perspective), theflacker effect, loop printing (the immediate repetition of shots, exactly and without variation), and rephotography off of a screen...'. The name caused confusion firstly because Sitney did not make it clear enough that 'structural' has nothing to do with 'structuralist' in the philosophical sense, and secondly because his categories were superficial: 're-filming' for example, is an aesthetic device also used frequently in poetic films.

The area occupied by 'structural' film has grown tremendously since 1969. Roughly speaking, these films have no narrative or poetic content. The content of structural films refers to the medium itself. Formal devices are not used symbolically as in poetic film but on their own account, as theme. These works are basically exploring the whole reproduction-process that underpins the medium, including the film material, and the optical, chemical and perceptual processes. Work with film is no longer restricted to photographic representation on a single screen, but includes projections of light, shadow-play, actions front of the screen, the extension of projection into the whole space and even the installations within that space when there is no film at all. The medium is, in short being explored as a visual system. Structural film began to analyse the reproduction process before the fine arts, 'perception as a theme of art' appearing in structural film in the 1960's and in the fine arts only in the 1970's.

Official film theory concentrates on the rendering of reality: structural film sees this as merely one possibility among many, and this allows for a much broader definition of the medium. This definition can be divided into three areas: I the film strip; II projection, using intervening light; III the projected image.

The Film Strip

It has varying material constituents in respect to grain structure, colour-sensitivity and hard-wearing qualities. It can be treated in different ways:

1. In the optical process, which includes the actual photographic shot taken with the camera and the optical printing. The photographic rendering of reality through the camera used to be confined to techniques such as focusing, framing, angle of shot and camera movements. Other, non-realistic, techniques such as super-impositions and dissolves (used to convey dream-visions, simultaneity of events etc.) were discovered in the surrealistic films of the 20's, and they have been further exploited, especially by Gregory Markopoulos in his poetic narrative films. The mechanism of the shot becomes a filmic technique. In the case of shots through the camera, image follows image and this operation can be performed manually, in which case the time-interval between each shot can be regulated at will, or mechanically, which can produce up to several thousand images per second. Animation-films and other films shot frame-by-frame are based on the manual method. Making films frame-by-frame introduces a new principle of montage. Whereas in narrative film, the montage determines the narrative sequence, in structural film it has the function of creating visual rhythm. The optical printing process permits the 'freezing' of frames, as well as reduction and enlargement. Some film-makers also work with contact prints for extreme transformations of light and colour.

2. In the chemical development-process of negative and positive material, where colouration and, above all, contrast and graininess come into play.

3. In direct work on the surface of the film-strip. There exists a tradition of painting onto the clear film (Futurists Corra and Ginja; Len Lye; Harry Smith). Glueing and spoiling the emulsion by scratching, punching holes and shredding have also been practised. Non-exposed clear film which projects white light onto the screen is also considered as 'film'.

Projection

In projection, image follows image and an impression of motion is conveyed, according to the laws of apparent
motion. But films do not only render real motion: there are different forms of purely filmic motion such as the flickering of the ray of light in flicker-films and films with collage objects. Motion in film is a possibility, but not a necessity, for single images on the film-strip can be identical. For this reason duration is an integral part of a film, which must consist of (at least) two single images presented in succession.

The perceived image

An impression of motion is of course created only during projection, due to the after-image and the stroboscopic effect which cause the single images to blend together into a continuous one. The image seen on the screen is always a product of our perception and therefore different from the single images on the film-strip. In feature films, the only difference is the movement, but in the single-frame films, the image perceived is totally different from the one on the film-strip.

Antecedents

In surveying the origins of structural film we must consider its area of problematics, not only the formal ideas developed in the 20's but those of narrative film. Light, motion, space and time have been important themes in the fine arts since the beginning of this century, for example in the paintings of the Suprematists, Futurists and Constructivists, but also in colour light music, mechanical shapes, colour light plays and kinetic objects. Ruttmann, Richter and Eggeling were drawn to film out of artistic necessity: Richter and Eggeling wanted to animate their abstract, constructivist phase-pictures and Ruttmann, who painted in a cubo-futurist style, was deeply concerned with the real passage of time. His manifesto for a truly modern art predicted that 'its essence will be in the temporal development of the formal elements, and that the new artist will carry out his work 'midway between painting and music'. It was some time before these theoretical movements found truly filmic solutions such as Ruttmann's Opus IV and Richter's Filmsstudie. These films do not imitate real motion with the help of animation but, by alternating positive and negative images and by rapid montage, they create purely filmic motion. Léger's Ballet Mécanique is highly significant in this context too, in that he puts together real image-material not to create narrative action but to form different sequences of movements — and even the real motion becomes contrived and mechanical because it is constantly repeated.

The first time that the film-strip had been worked on directly and modified with documentary material to form a sequence of images was in Man Ray's Retour à la Raison. It caused an uproar in a Dada soirée by confronting the spectators with an abstract sequence instead of the expected feature-film. Duchamp must also be mentioned here as the first person to work with 3-dimensional perception in his film (Anémic Cinéma, 1926). It is clear that Entr'Acte in spite of its many formal ideas, has no place in the present discussion due to its fundamentally narrative structure, and this is also true of Richter's surrealist films and Ruttmann's documentaries. Vertov's Man with a Movie Camera is an exception, and, although a document-
Bruce Conner is often cited as another precursor of structural film, because of his first film, A Movie (1958), which used secondary material (residue of feature-films and newsreels) exclusively. His films are symbolic in intention, and literary, aiming to represent the destruction of the world: the academy leaders for example are intended not as a reference to film-material, but as a ‘count-down’. Robert Breer is somewhat different. His frame-by-frame collages (1954 onwards) do not belong to the poetic-narrative category, and the form he uses excludes any literary content. He came to film from abstract painting. Two important consequences thus resulted from Breer’s extended encounter with film. First he expanded his compositional materials to include-collage elements, three-dimensional objects and figure-drawings. Secondly and more importantly, Breer began to investigate a problem which was to inform his best work for nearly a decade: isolating the ‘threshold’ between cinematic and ‘normal’ perception.” Because Breer regards his films as objects, he shows them as loop-installations as well. In addition he composes sequences of images for the mutoscope.

**Beginnings**

Contemporary developments in art, particularly the Fluxus movement, gave great impetus to the progress of structural film. The role played by the Fluxus movement has been emphasized by George Maciunas, but most people are not yet really conscious of it. The theory that underpins the work of the Fluxus artists in the different media is very significant. Some of these theories are expounded in Maciunas’ essay *Neo-Dada in the USA* (1962): ‘... These categories, and the artists who are active in the different fields, have almost without exception embraced the concept of Concretism or Art-Nihilism. Unlike the Illusionists, the Concretists champion unity of form and content. They prefer the world of concrete reality to that of artistic abstraction or Illusionism. A plastic artist who is a Concretist sees a rotten tomato for what it is, and represents it as such, without transformation. Its formal expression is indistinguishable from its content and from its perception by the artist, i.e. it is a rotten tomato and not a pictorial or symbolic representation which is contrived and illusionistic.’ There is an obvious link here with structural film’s exploration both of illusion and of the functioning of the medium. Fluxus music has freed itself of Illusionism by using concrete tones (which clearly refer to its origins) and this corresponds to structural film’s concentration on primary filmic elements such as light-projection, film-material etc. The unity of form and content is clearly expressed in La Monte Young’s compositions of 1960. Although film is only marginal in the Fluxus movement, it is important historically in that it provides one of the earliest examples of the medium choosing itself as theme. Nam June Paik’s *Zen for Film* (1962/64) which consists solely of clear film, draws attention to light-projection as a fundamental element of film and the modification of the film-strip during projection (scratches and dust appear) emphasizing elementary aesthetic qualities. As regards content, this film has more in common with *Retour à la Raison* than Brakhage’s *Mothlight* does; because both

Stan Brakhage *Mothlight*
Paik and Man Ray use provocation to attack established art forms. Paik's 1963 Film Scenario contains the seeds of much further development: exploration of the filmic illusion of reality by confronting an object and its image (e.g. nos. 2 and 10) and the inclusion of the projection-process and the combination of film with real action (e.g. Nos. 3, 4, 6). No 7 has affinities with Warhol's films (long, uninterrupted shots). He does not however, anticipate Warhol: many artists were working with similar notions at the same time.14 Warhol does not belong to the Fluxus movement, but some of its conceptions were spectacularly realised in his first static films such as Sleep, Empire, and Kiss (1963 and 1964). Here, the filmic technique is reduced to the choice of framing. The entirely mechanical reproduction process replaces artistic work done by hand. There is no dramatic action, therefore no beginning or end. The films contain the notion of the ceaseless continuity of time, which is also important in Fluxus works. The films mark a total break within the independent film movement which reached its first climax in 1963 with Scorpio Rising (Kenneth Anger), Twice a Man (Gregory Markopoulos), Flaming Creatures (Jack Smith), Churnum (Ron Rice) and Dog Star Man (Stan Brahaeu). Against their myriad of techniques, multilayered narratives and frenzy of colour he sets the simple reproduction process, the object itself and in black-and-white.15

This same preoccupation with the material of film becomes the theme of George Landow's Film In Which There Appear Sprocket Holes, Edge Lettering, Dirt Particles etc. (1965) where found material is used and sprocket-holes, splices and dirt are treated as filmic elements and refer to the film as a strip. The loop-structure is of the same importance. Through the continued repetition of the same short sequence the material becomes object and refers only to itself. Tony Conrad's The Flicker (1966) has the same character but is achieved through different means. This film is the result of a systematic investigation of the stroboscopic effect in relation to perception. The pure pulsating light acts directly upon the perceptual faculty and the film is conveyed as a sensory-material experience. Ray Gun Virus (Paul Sharits, 1966) is made frame-by-frame, like The Flicker. By rapidly alternating bright, short-frequency flickers, brilliant bursts of colour and colourless black/grey impulses, Sharits is experimenting with the blending of pure colour-fields on the retina. In Piece Mandala (1966), he welds colour-frames and single representational frames into a rhythmic, synthetic sequence of movements.

The 'New Cinema Festival' organised in New York by the Filmmakers' Cinematheque in 196516 showed how much the new consciousness in film had spread. Dance and film-projections were combined as a confrontation of image and reality: in Ed Emshwiller's Bodyworks for example dancers dressed in white formed the screen on which he showed (with a hand-held projector) a film that portrayed the dancers. Sometimes the film and the dancing figure were identical, sometimes only one part of the body was shown, greatly enlarged, on the dancers' bodies. The important Film Culture issue 'Expanded Arts' (1966) reported on the festival and similar activities.7 Fluxus works were also performed, and Kosugi's Film No 4 was especially interesting: light was thrown onto a paper
screen from an empty projector, and the screen was cut from the centre out until nothing remained. In this context we must also mention Robert Whitman’s installations such as *Shower* in which he combines real environment with film, and Louis Brigante’s * Burning Loops*, where hand-painted film is passed through the projector at different speeds and stopped every now and then, which causes the frames to melt. Ken Jacobs works with shadow-play in his ‘Apparition Theatre of New York’ exploring problems of perception and image, often without using film.

European developments up to the mid-60’s were independent of those in America. Peter Kubelka had already made *Adebar* in Vienna in 1957 and *Schwechater* in 1958. Both films have very few pictorial elements and their construction relies on the principle of the rhythmic repetition of the single frame. The aesthetic information he wishes to convey is drawn from the technical support-system he is working with, i.e. film. He is primarily interested in the aesthetic conditions within his film, not in the objects he uses as they are in the world outside his film . . . and, as in modern music, the rhythm is determined serially and statistically. The film is reduced to its raw materials.17 At the first screening of *Adebar*, Kubelka had the film-strips themselves hanging up for all to see. In 1958/60 he spliced together black and white frames according to a frame-by-frame plan and produced the first true light-film *Arnulf Rainer*. This theoretical concept is expressed in an interview with *Film Culture*: ‘Cinema is not movement. This is the first thing. Cinema is a projection of stills — which means images which do not move,— in a very quick rhythm. And you can give the illusion of movement, of course, but this is a special case, and the film was invented originally for this special case. . . . Cinema is a very quick projection of light impulses. These light impulses can be shaped when you put the film before the lamp — on the screen you can shape it . . . you have the possibility of giving light dimension in time . . . . ’

At the same time, Kurt Kren was beginning to work with film in Vienna. After *Versuch mit synthetischem Ton* (1957) he shot 48 *Kopfe aus dem Szondi Test* (1960) following a serial shooting-plan for the use of the single-frame mechanism. Unlike Kubelka, who organises his films according to musical principles, Kren develops the rhythm of the image as a new creative device. Since he works with real images, one can clearly recognise the shooting-system as transformation-process. Concerning Kren’s next film, Malcolm Le Grice writes: ‘Kren’s first structuralist film then is *Bäume im Herbst*, (Trees in Autumn, incidentally the first film in general I would call structuralist). Its structuralism is a result of the application of a system, not to subsequent montage of material already filmed with an unconstrained subjectivity, but to the act and event of filming itself. This limitation, by narrowing the space and time range of the shot material gives rise to a greater integrity in the film as homologue. In *Bäume im Herbst* the new space/time fusion of the experience of branches shot against the sky is the plasticity of the shooting-system because the relations of the objects — shots, and their space/time observational relations are inseparable. Structural process becomes object.’18

Between 1956 and 1962, the German artist Dieter Rot made a series of shorts that are almost unknown. *Dots*, in
which he punched large holes irregularly into black leader, is an early example of direct work on the actual film-material. This produced a physical after-image effect similar to that found in flicker-films.

Formal film development in Europe (Kubelka, Kren and Rot) took place before and without knowledge of what was happening in America. Sequential principles of construction, Schönberg's twelve-tone technique, Hauer's twelve-tone work, the extreme concentration of Anton Webern's music, the results obtained by Mondrian, and James Joyce's novels all conditioned post-1945 Viennese art in many respects and provided the assumptions underlying Kubelka's films. Cage is an example of how modern European music indirectly influenced developments in America, and he is an important precursor of the American Fluxus movement. There are, however, differences that cannot be overlooked. Up to the mid-60's there was no poetic film development in Europe like that in America. Right from the start there was a much stronger formal tendency in Europe, which is also mirrored in the broad development of European structural film of the second generation since 1966. In reply to the charge that European structural film was influenced by, or even copied, the Americans it must be stated that up to 1968 the only information on New American Cinema concerned poetic film and its chief representative, Stan Brakhage. Even the major touring programme that came to Europe in late 1967 (visiting Germany and England in 1968) contained no structural films except *Bardo Follies* (George Landow) and one Fluxus programme. This tour marked the triumph of 'Underground' film and certainly influenced European poetic film, but not, however, formal film (which was already in existence). Any influence that there was came rather from Brakhage's writings which were known through *Film Culture* before his films were available. A much more important question is that of the quality of the individual works.

**Developments 1967-76**

Work on material, work on shooting-systems, and work on the differing claims of 'reality' and the representational image, are three major themes in the development of structural films since 1960. 'Found material', either reproduced, edited as is into the film, or worked on directly, often provides the basis for the exploration of the film-material. In the films that reproduce this 'found material', film as strip plays a central role. In *Bardo Follies* (1967) George Landow uses a short documentary shot (a boat sailing past a waving girl), prints it as a loop, and doubles then triples the image, which finally dissolves in brown bubbles. He then continues this same process symbolically, using images of coloured bubbles, until everything is finally resolved in white. In *Little Dog for Roger* (1967) Malcolm Le Grice makes a print of an old 9.5mm home movie of his mother and dog on a printing-machine he built himself and the viewer sees the print as a continuous strip within a larger frame, with several frames always visible at once. He repeats the same sequences at different speeds, freezes frames and displaces them within the image-field. It is not only the film-strip and the sprocket-holes that remind us of the actual film-material, but the deliberate imperfections in the processing (water marks on the emulsion, light-variations) and they almost make the image disintegrate. In *Rohfilm* (1968, W. & B. Hein) dirt, sprocket-holes etc. appear independently of a continuous film-strip as aesthetic elements in their own right. Hairs, ashes, bits of tobacco, shredded film-images, scraps of paper, sprocket-holes, perforated splicing-tape etc. are glued onto blank film and then re-filmed. The film-strip is then subjected to different reproduction-processes (re-filming from the editing-table, the movieola and the video monitor) and the result is an impression of destruction on a massive scale. In both *Rohfilm* and Little Dog for Roger the end is planned according to aesthetic notions. In *Tom, Tom, the Piper's Son* (1969, Ken Jacobs) the material is explored systematically. He starts with a 10 min. burlesque film of 1904 which, after one complete run-through, is analysed sequence by sequence after being re-filmed from the screen. Parts are repeated at differing speeds, including slow-motion; isolated fragments are run forwards and backwards, and details grow larger and larger until the image dissolves into bright and dark spots and the film-grain becomes visible. Jacobs is thus moving from the reality of representation to the reality of the film-strip and its material constitution. The film ends with another complete run-through of the original film. Deke Uabin and Bruxburke have commented: 'Those films are open to analyses which involve an analogic principle, a principle which assumes that the structure of the film serves not only to elaborate the cinematic system of representation, but also serves as an analogue for other systems of meaning. Thus crucial structural films are seen as, say, an analogue for the rejuvenation of vision (Tom, Tom, the Piper's Son) or as a metaphor for an analogic epistemology (Zorns Lemma) or as a metaphor for the intentionality of consciousness (Wavelength). It would seem, too, that the larger tradition of American avant-garde filmmaking has exploited such analogic techniques — primarily that of the metaphor, in which the formal concerns of filmmaking are conflated with another perceptual or epistemological or philosophical problem. But what has made structural films eminently receptive to this tradition is that their dominant shape or structure automatically suggests modes of organisation and meaning other than purely filmic ones. European film on the contrary, tends to exclude the second level of meaning.'

Malcolm Le Grice analyses the reproduction-process in his six-screen projection *After Leonardo* (1973): onto one screen is taped his original material — a black-and-white reproduction of Mona Lisa — and at the same time, on the five other screens we see the filmic re-working process it is undergoing, e.g. enlargement, various lightings, as a negative, and with deformed perspective due to re-filming. In the blow-ups of details, the film-grain, the definition of the printing, and the cracks in the paint of the picture are clearly visible. Multiple projection, used by Le Grice since 1967, has become an important tactic for structural film because it can show different filmic processes simultaneously, and also because it breaks the illusion created by the single film-image. Multiple projection is not, however, a separate category in itself.

In contrast to the above, Paul Sharits in *Axiomatic Granularity* (1973) and *Apparent Motion* (1975) does not start with a photographic image, but just the exposed film-strip, which he enlarges optically until the film grain
becomes the subject of the image. In *Stream: Section: Section: Section* (1970) he shows that the film is both projected image and object (film-strip) by gradually covering a real image (moving water) with scratches. His installation *Sound Strip Film Strip* (1972) (2-screen projection) is tackling the same question: blank film which has become scratched in the course of projection is re-filmed. The re-filmed scratches, and the real scratches that have occurred since, underline the time-lapse between production and projection.

In 1968, Taka Imura began making his Projection Pieces, which show film simultaneously as strip and as projected image. He uses loops of black or blank film which are fed over spools in the room and, at the same time projected normally. These were the first film installations which treated projection as object. David Dye's loop-installations like *Film onto Film* (1972) rely on similar ideas: the image on the screen depicts film-strip, and the real film-strip is fed over the projected image. Dye is concerned here not only with the material, but with the relationship between shot and projection-process, as is clear from his other film-performances. Peter Weibel's film-action *Glans und Schicht des Zelluloids* (1968) explores this relationship in a different way: he splices single-perforated material together, right and wrong way round alternately, so that when the film is projected, it is constantly blinking and has to be re-spliced. Hans Scheung's *ZZZ Hamburg Special* (1968) is a 'material film' in the same way as Weibel's: instead of a film, he threads a piece of sewing-cotton through the projector, and we see its silhouette moving on the screen. Some of Tony Conrad's work shows similar neo-dadaist traits: for example, he has cooked film and then exhibited it. In his performance *7360 Sukiyaki* (1973) he washed unexposed red Kalvar stock, cut it up, and cooked it with the ingredients used in making the Japanese dish Sukiyaki. The film material turned pink, then brownish. He next dipped the pieces of film in egg and threw them against the screen, which was illuminated by the projector, and they slowly dripped down. In *Bowed Film* (1974) a film-loop became a musical instrument. He fixed up a loop to go round his head and fastened it to the floor, attaching microphones to it. He then plucked on the loop and produced a musical noise. In their project *Materialfilme* (1975 onwards) W. and B. Hein have been emphasizing the aesthetic qualities that are independent of the artistic technique. Ready made film-material (unexposed positive and negative film, clear and blank footage in every possible shade of white, grey and yellow, coloured tails and leaders which are either very new or worn out with years of use) are all put together to make various films, which only make sense as originals.

Many of the films under discussion also explore the theme of light, for example Paik's *Zen for Film. Schnitte Für ABABA* (Werner Nekes, 1967) is another typical example. Nekes edits together red and green leader, leaving blank intervals, and creates a pulsating flicker-film whose rhythm is underlined by the clearly-visible splices. The effect of most 'light-films' comes from the flickering caused by the rapid succession of single frames, and they should be discussed in connection with the films that are shot frame-by-frame. Tony Conrad, in *Straight and Narrow* (1970) uses the results of his stroboscopic studies once again. Black and white frames are put together with single-frames of horizontal and vertical stripes (and a combination of both). The after-images produce new images and rhythms which go far beyond the limitations of the original material. Sometimes, colours are even produced in pure black-and-white film. In *Four Square* he projects four identical films (red, which gradually turns into flickering vertical strips of light) onto the four walls of a room. Each projector is positioned beside a projected image, and the rays of light emitted cross each other in space. Each film-image and its projection-beam are both seen at once. It is important to note that reflection on the medium is only the point of departure in these works, and not their real subject. The essential element is the aesthetic object that has come into being. Hence, multiple projection has developed into a shaping-device, designed to transmit visual experiences that can only occur when several images are presented simultaneously. This happens in *W* and *B* Hein's *Doppelprojektion* (1971) in which the motion derives from the single image. The varying changes in light (mechanical and manual fade-ins and fadeouts) in both images give the impression that the surfaces are moving back and forth in space, or that one single image is jumping this way and that on the projection-surface. William Raban uses similar means to produce a completely different image effect in *Diagonal* (1973). Three projectors show the same image: a trembling, double exposed rectangle of light which glides in and out of the image-field. Since the three images from the projectors are arranged diagonally on the screen the viewer has the impression that a single film-image keeps crossing the whole projection-surface with amazing rapidity. Le Grice's *Matrix* (1973), 6-screen projection) also works with the movement of the film-image on the projection-surface using colour-loops. Both the duration and the film are variable, since the 'film' is created at the very moment of performance when Le Grice welds together the separate image. In *Colour Sound Frames* (1974), Paul Sharits achieves retinal blending by filming colour-fields passing in front of the camera at different speeds. The colours are perceived differently according to the speed: for example, the separate images and the individual colour-fields are unrecognizable at the highest speed as they have blended into a grey ribbon. The slower the speed, the clearer and brighter the colours.

Anthony McCall's 'Cone' films must be mentioned here although they are not based on the flicker effect. He makes sculptures in light using the ray that passes between projector and screen (the image produced being only of secondary significance) and the spectators, who must move about and construct their own film-experience, get their best view when their backs are turned to the screen. In the early films such as *Line Describing a Cone* (1973) the limited running time essentially determines the work, but in *Long Film For Four Projectors* (1974) the running-time is so long that the film is experienced as a static object and it is in fact left up to the spectator to decide on its duration. In the installation *Long Film For Ambient Light* (1975) he no longer uses film, but simply artificial and natural light, exploring its changes over a (theoretically) infinite period of time. 1973 McCall has pushed his experiments to an extreme, but this does not mean that...
this is the end of the exploration of light in film generally.

The plastic rhythm of the image is an essential element in the light-films discussed so far. This is also true of films made on the same principle, but with real image-material such as Kren’s early films in which there is a complex relationship between real and filmic motion. *Jum-lum* (1967, Werner Nekes) begins with real swinging movement which is progressively interrupted, repeated, and overturned by means of jump-cuts and generally intensified until it becomes purely filmic motion, entirely dominated by the rhythm of the image. In contrast to *Jum-lum*’s dramatic curve, Kurt Kren’s montage-film *TV* (1967) is completely static. He retains the serial principle of his early films, but begins here not from a single image, but from five short, almost identical sequences (shots from a cafe on the Venetian waterfront) which he assembles twenty-one times in different orders, with black frames in between. The real fragments of motion in the individual sequences become abstract counter-rhythms of the rapid montage. That *TV* is also a very poetic film, which communicates a mood of time standing still, is an equally important component of the work. There is no structural dogma. In *Touching* (1968), as in *Piece Mandala*, Paul Sharits alternates ‘realistic’ single frames and coloured frames to create motion artificially. The images (a man sticks out his tongue, holding it with a pair of scissors and a hand with glittering fingernails scratches his face) and the aggressive sound create an ambience of menace. Clearly, Sharits wishes to express his own psychic state (such literary references reappear in his installation *Epileptic Seizure Comparison* (1976)°

The film sequence *Work in Progress Teil A* (W and B Hein, 1969) deals with the illusion of motion and with the single-image structure of film. In Film 3 a (3-frame) photo is always replaced by three black frames every now and then. In this work the Heins uncovered a curious phenomenon: not only can continuous strobe produce colour after image, but it can also create an illusion of motion where none exists. The still picture of two girls seated together, continuously repeated, gradually seems to move, the faces seem to smile, and one figure seems to lean closer to the other. The cause of this phenomenon may be similar to the inevitable mental reordering of repeated verbal phrases. The perceptual process seems to demand change even where there is none. In the near scientific way in which they have come increasingly to follow up their experiments, the Heins made *Fotofilm* 1970 which further tested this phenomenon

In Film 6, three real sequences of a running man are enlarged by image into photos which are then re-animated. The phases are put together in different ways and interrupted by black or white frames of different lengths. The rough and faulty character of the images (also contemporary work by Le Grice and Kren, for example) springs from a deliberate aesthetic of imperfection which contrasts starkly with the brilliant colour-aesthetic of Americans such as Paul Sharits.

A broader analysis of the perception of movement is performed in *Structural Studies* (W & B Hein, 1974). The short single films each contribute a statement to the subject. The optical laws on which the illusion of natural movement depends are also basic to the generation of

Werner Nekes Spacecut 1971
pure filmic movement. In three parts the different kinds of movement in film are discussed. The film works with the confrontation of abstract demonstration material and real image material, each shot in the same technique. Here the possibilities and the limits of the technique or system are shown and the importance of the image-material becomes obvious.

The 'Kinetic' films based on the single image also deal with problems other than motion and rhythm: for example, the transposition of temporal and kinetic duration into light-change and light-movement. One of the first examples of time-exposures is Bogen (Werner Nekes, 1967). The changes of light that occur in a towncape over a 24-hour period are concentrated by shooting one frame per minute, as the movement into a static image lasting one minute. In Spaccett (1971) he puts together panning-shots in a Nevada landscape, from single-frame takes. When it is projected, the movement through space is translated into a sparkling movement of light ranging from dark (the earth) to bright (the sky) and back to dark again. The effect is similar to that in pure light-films, but at the same time light is perceived as the light of a certain landscape at a certain time. In Makimono (1974) he shows 'the unfolding of a continuously varying expression of the representation of a landscape'. He also works here with multi-exposures and camera pans. The space of the image widens with a permanently increasing movement, which in the end leads to the dissolution of the landscape image into pure light motion. The experience of space and light recalls Michael Snow. But Nekes does not work with continuous camera movement like Snow. He composes the film from single images, which create the impression of motion only in the perception of the viewer. Heinz Emigholz, too, has since 1972 been working from shooting-systems that he develops into extremely complicated mathematical constructions. In Arrowplane (1974) he simulates pans with sequences of single frames taken from fixed points in a radius of 180. These setting points remain the same in each movement, but each time they are combined differently. Thus the real image of a Landscape is transformed into a well-nigh abstract kinetic object.

The primary strategy for exploring the properties of cinematic representation is the manipulation of the recording devices (e.g. the shutter of the camera — time lapse and time-exposure releases — or the aperture, or the framing of the composition or the use of tripod or of tape recorder) and the primary strategy for then integrating the 'content' of the landscape with the 'shape' of the film is to establish a system or systems which incorporates the two. Two of the most important filmmakers working in this way in England are William Raban and Chris Wesby who collaboratd on some early films e.g. River Yar (1972). In his film Angles of Incidence (1973), Raban works with a panning movement which is trasposed into single-frame sequences. The format of the film frame is modified by filming through the shape of a window. The camera tracks to viewpoints on an arc inside a room. The centre of the arc coincides with the centre of the window frame which occupies a constant position of the screen. The perspective of the window frame changes as the camera moves to new positions on the arc and different aspects of the view outside are discovered... angles of incidence; angles of reflection. The film took thirty hours to shoot, and the filming was conducted according to a score which was written during the actual time of filming. Incorporating the composition into the shooting period allows for a greater degree of flexibility; chance occurrences may be more easily incorporated, and it is less mechanistic than copying from a prescribed score or model. The way Chris Wesby worked in Seven Days (1974) is carefully thought out. The location for this film is by a small stream on the northern slopes of Mount Carningly in S. W. Wales. The seven days were shot consecutively and appear in that same order. Each day starts at the time of local sunrise and ends at the time of local sunset. One frame was taken every ten seconds throughout the film. The camera was mounted on an Equatorial stand which is a piece of equipment used by astronomers to track the stars. In order to remain stationary in relation to the star field the mounting is aligned with the earth's axis and rotates about its own axis approximately once every 24 hours. Rotating at the same speed as the earth, the camera is always pointing at either its own shadow or at the sun. Selection of image (sky or earth, sun or shadow), was controlled by the extent of cloud coverage, i.e. whether the sun was in or out. If the sun was out the camera was turned towards its own shadow; if it was in, the camera was turned towards the sun. A rifle microphone was used to sample sound every two hours. These samples were later cut to correspond, both in space and in time, to the image on the screen. This description does not convey the lively effect of the film which is due to the speed of the weather-changes (the speed being due to the time-setting).

Kurt Kren works with time-exposures in different films such as Film Coop Amsterdam and Zeitaufnahmen. His most complex film is Asyl (1975) which uses a very complicated shooting system: the same view from a window is photographed on 21 consecutive days, each day through a different mask which has only five small apertures (windows). The result, after the 21st exposure, is a complete image. By manipulating the diaphragms, Kren creates motion within the static image by the flickering within the apertures. Since the weather was very changeable during shooting, we sometimes see sun and sometimes snow in the image. The change within a landscape over a fixed period of time is thus caught in a static image. Motion is created due to the change of masks, but the movement of time cannot be seen as teleological.

The problem of the camera reality is developed as a very complex process in the work of Michael Snow. In Wavelength (1967), Back and Forth (1969) and Central Region (1971), Snow begins by showing the physical and photographic reproduction-processes as apparently identical, and then gradually reveals their differences. He does this in Wavelength by using the zoom (which causes the image-field to change), but also by superimpositions and light and colour changes using filters. The apparently continuous duration of time of the zoom as it travels is opposed to illusionistic film-time. He counters the continuous 'action' with fragments of a story-line, which function as an ironic quotation. But above all Wavelength has been very influential because it was the first film where the principle of gradual transformation was clearly formulated. In Back and Forth a comparable process is
expressed quite differently. The impression given by the image, which at first looks natural, is gradually transformed thanks to the continuously-intensifying horizontal panning movement in the first part of the film: the wall seems to arch, perspectives alter, double images appear. The final result is an almost abstract image only identifiable in reference to the original. The second half of the film starts with a rapid (vertical) panning movement and gradually we move from the abstract to the real image. The continuity of the camera movement is opposed to the different spatial events which refer to illusionistic film-time. In Central Region the spatial pans of the camera give the spectator an optical experience he could never otherwise imagine. The camera, which is a machine, is guided by another machine. 'I only looked into the camera once. The film was made by the machine itself according to the plan. You can imagine how excited I was when the film (c. 8 hours) went to be printed in Montreal.'

It is not only the unusual character of the visual experience that stands out, but also the way it is conveyed. After a time, the spectator understands the film's strategy, but cannot predict the outcome at all: hence the gradual unfolding of the film becomes an extraordinarily affecting and exciting experience.

Of course, Warhol was the first to use the reality of the camera as a theme: indeed, the mechanical reproduction-process plays an essential role in all his artistic work. Like Snow, Peter Gidal was influenced by this; and he, too, arrived at independent solutions which go far beyond the theme of the camera. Unlike Warhol, who chooses the camera-angle subjectively and Snow who deals with the discrepancy between the real and the transformed (abstract) image, Gidal comes close to representing the shooting process as an entirely independent reproduction-procedure which has little to do with physical perception. In Room Film 1973 (1973) subjectivity is achieved not only thanks to extremely close close-ups, but also through the under-exposure and the graininess of the film-material. 'Despite the other tactics in the film which contribute to the visual impact — graininess, tinting underillumination, loss of edge of frame, etc. — it is the camera work which remains most central in determining that impact. (Similar camera-work will become even more important in Film Print as the other tactics used in Room Film 1973 become less important). The camera in Room Film 1973 not only contributes to the incoherence of the imagery, but also to the incoherence of space. It never constructs a discrete space; that it was shot in one room remains an assumption on the part of the viewer. This is in contrast to the earlier Bedroom, in which the wider shots and steadier camera presented a discrete space which was easily identifiable as a single room. Room Film 1973 undermines the establishment of a unity of space just as it undermines (in editing) the unity of time, yet it struggles to maintain the literalness of the recording and viewing experience'. Room Film 1973 is not constructed on the principle of transformation — it is completely static. It consists of units of equal length which are each repeated once at a certain time. The spectator finds that his way of looking alters during the long running-time of the film.

on the film, and at the same time through the interaction of the different cameras: the different images of the same subject are shown simultaneously. The narrative becomes an event of reproduction.' With Snow, Gidal and Le Grice, the camera is very much freed from a personal viewpoint, but the aspect of reproduction in Ken Jacobs' Urban Peasants (1975) is emphasized by constant reference to the person behind the camera. Home movies of the early 50's shot and edited by one of his wife's relations provide the material for the film. The cutting does not highlight the action, but relates, rather economically, to the shooting situation, to the length of the film-material, and to the time judged necessary to portray each situation. There is a lot of hesitancy and interruption. The family members being filmed turn towards the camera, acting for the shot. Legs are missing, people run out of the image-field and come too close to the lens, and this all draws attention to the framing. The media-theory side of the film is of course only one of its aspects: the touching expression of human relationships is equally important. Marilyn Halford focuses on the situation behind the camera in some of her films. In Footsteps (1974) the camera takes part in the action, which means that the spectators, too, assume the subjective viewpoint of the camera as their own. At the end of the film, the camera which was trained on Marilyn Halford who was acting, pans round to the 'spectator-space', and one (quite illogically) expects to see what is behind the camera, but of course one only sees what is in front, i.e. the other side of the garden where Footsteps is being shot. And the realm of the image and that of the spectator prove once again to be completely separate. In one of the films from Guy Sherwin's Short Film Series (1976 onwards) film-maker and filmed persons appear simultaneously in the image: his parents stand at either side of an oval mirror in which the film-maker and his camera are reflected. His father, who is taking pictures, and his mother look at him expectantly and speak to him intermittently, whilst he smiles kindly at them. Shortly before the reel comes to an end, his mother turns round and looks into the mirror.

The Polish film-makers of the 'Lodz Workshop' Josef Robakowski, Richard Wasko and Wojciech Bruszewski scrutinize their own physical perception using technical means. Bruszewski reduces the problems to their simplest form. In Machbox (1975) he shows the same two shots alternately: a hand tapping a matchbox against a window-sill and a shot of the window. The tapping sound is at first in sync and gradually becomes non-sync (because the sound loop is somewhat shorter than the two shots). The film ends when the sound is again in sync. This simple procedure disorientates the viewer, and his perception of the film alters each time the sound is displaced.

Another aspect in this problematic is worked out by Richard Serra; whilst most fine artists at the end of the 60's viewed film as a pure medium of documentation and did not call into question the representation of reality, Serra started from the premise: 'These media fundamentally contradict the perception of the thing to which they allude.' In Frame (1960)' he measures with a ruler a window frame whose right side coincides with the right
edge of the film-image. 'Objective physical measurement of real and physical depth coupled with apparent measurement of film depth points to the contradiction posed in the perception of a film or photo.' In Colour Aid he works with colored boards that completely fill the frames he shoots. At 5-30 second intervals he pushes the uppermost board outside with his hand, and a completely different color appears. When the pure color is shown, the object and its image are seemingly identical, because the film-image and the color-surface coincide. When his greatly-enlarged fingers appear, the film-space once more becomes illusion and the color-boards are recognizable as filmed objects.

The Viennese filmmakers Peter Weibel, Valie Export, Hans Scheung and Ernst Schmidt have been exploring the illusory reality of their camera work since 1967, and their work has some links with Fluxus pieces. Their closest connections are, however, with the Viennese art-scene which was deeply marked by Aktionismus at this period. A few examples must suffice. In the action Nivea (1967), Peter Weibel holds a 'Nivea' advertising ball in front of the illuminated screen. 'For if the locus of film is not the screen, houses can be projected onto houses, or bodies onto bodies, the object and its image are congruent and image and celluloid onto bodies, the object and its image are congruent and image and celluloid become superfluous.' In Abstract Film No 1 (1968) Valie Export makes a colour film by means of reflection: colour is poured over an illuminated mirror, and the reflected image appears on the screen. In Exit (1968) Peter Weibel lets off real fireworks which burst through the screen and fall among the audience, because he wishes to replace the illusory experience of film with real action. In Tapp und Tastfilm (Valie Export, 1968), the 'spectator' can feel Valie Export's naked breasts in a tray strapped onto her body, and briefly enjoy a moment of 'real contentment'. Ernst Schmidt's film-action Ja/Nein (1968) is another provocation related to the cinema-situation: 'a cinema screen that is opening and closing is projected. At the same time, the real screen is being opened and closed, and this goes on until the film ends.' In his installation Das magische Auge (1969) Peter Weibel makes the spectators create both image and sound: a screen on which photo-cells are mounted is lit up by a projector, causing a sound corresponding to the intensities of the light. When the spectator crosses the ray of light, his silhouette alters the pitch of the photocells.

In his action Horror Film I (1971), Malcolm Le Grice makes his own shadow into the 'film-image'. He works with three film-loops, one of which throws a much larger image over the other two which cover each other and make a bright image standing in the ray of light. Le Grice moves slowly backwards from the screen and his silhouette gets larger and larger, until he finally holds his hands in front of the lens and their silhouettes fill the screen. The spectator experiences the real action and the transformation of the film-image simultaneously. The notion of the screen as a framing-surface is also emphasized. Shadow-projection as an allusion to the film-image is used in different film-actions such as those of Tony Conrad (already noted) and Annabel Nicolson. 'In another piece, Real Time (1973), a long film loop runs from a projected onto a wall, the loop with the holes which build up and up with each cycle thought the machine until it finally breaks.' The most ambitious works of this sort are the shadow pieces of Ken Jacobs' 'Apparition Theatre of New York'. Jonas Mekas describes the performance Evoking the Mystery, Chapter Four of the Big Blackout '65 which took place in a New York church in 1968: 'Jacobs manipulated carefully placed lights which, when switched on or moved around, revealed now a cornice, now part of the ceiling, now part of the altar, now a chair, now the organ pipes — while the sound system blew into the church the sounds of the street, noises, cars, bits of voices, and later, the organ music (played by Michael Snow).'

This exploration of the phenomena of perception finally led Jacobs to work with 3-dimensional slide and film projection and 2-dimensional shadow-plays which he performed in his piece Slow is beauty - Rodin (1974, New York). The images and actions he creates although they have a 3D quality exist only in the perception of the spectator. One thing he does is to paint a 'film' directly onto the spectators' retina using a very bright room and they still see the moving paths of light for quite some time after the lamp has been turned off. Jacobs' work with shadow—often is an example of how 'expanded cinema' actions which reflect film often come close to the early history of the cinema, both technically and aesthetically.

The mid-'70's saw the climax of structural development: it had carved out its own area of problematic and its visual means had attained their independence. It is therefore appropriate to end this survey at that point, with a few closing remarks on some new tendencies. Rameau's Nephew by Diderot (thanks to Dennis Young) by Wilma Schoen (Michael Snow, 1974) explores the general problem of the rendering of reality in language and image using the medium of film. He begins with a perfect illusion of reality of the sort one sees in a sound-film (scenes being acted) and then separates image and sound entirely, so that we realize that they are two quite separate realms. In some scenes, they are so radically altered as to be barely identifiable. Finally, a new reality is created that is obviously filmed. He relies on the recall and the imagination of the spectator to correct and complete the events in the film. He has given up closed form here. Interruptions and contradictions make the work more complex. In this film, the problematic of the media is overcome and the way is open for further developments in structural film. On the threshold of the 80's, two completely different tendencies are appearing: a trend towards a cinematic exploration of semiotics (Le Grice, Nees) and a trend towards fine art, and away from cinema (Sharits, McCall, Heim). Michael Snow is devoting all his attention to playing jazz and Peter Weibel sings with a rock group!

Translated by Marian Malé
1. P. A. Siney, 'Structural Film' in Film Culture, No 47, 1979
3. op. thysi to Wulf Herzogenrath
4. Walter Ruttman, Malerei mit Zeit in Film als Film exhibition catalogue, Cologne, Berlin, Essen, Stuttgart 1978, p. 63
5. op. thysi to Dagny Vertov
6. op. Peter Weibel's essay 'Der Wiener Formalismus'
7. cp. William Morris, 'Der abstrakte Film seit 1930 - Tendenzen der West Coast in Film als Film catalogue (see above), p. 128-47
12. La Monte Young Composition 1960 in George Maciunas, Some Comments on Structural Film by P. A. Siney (see above)
14. The first film using static camera focus is usually taken to be Jacques McLow's Tree-Movie (1961), and very probably Warhol did not see it. Dick Higgins made a film Invocation of Canyons and Boulders for Sam Brakhage (1965) which shows a mouth making continuous eating movements (Maciunas) and could be compared with Warhol's Eat.
15. For an in-depth analysis of the films, it would be vital to see them today, but this is not possible, at least in Germany.
16. cp. Film Culture 'Expanded Arts', No 43, 1966
17. ibid.
18. Ernst Schmidt and Hans Schleiwig, 'Wiener Filmhappenings' in Film, Vol. 12, Velber bei Hannover, 1966, p. 19
19. cp. Peter Weibel's extensive analysis in Film als Film (see above), p. 218
20. From an interview with Jonas Mekas in Film als Film (see above) p. 218
21. From an interview with Jonas Mekas in Film Culture, 44, 1967
23. Herrmann Nisch, quoted from an unpublished manuscript in the possession of Peter Weibel, 'Der Wiener Formalismus' (see above), p. 179
24. In Italy, films of the New American Cinema were shown at the Festival of the Two Worlds in Spoleto. This was clearly an influence on the extremely early rise of a poetic film movement in Italy, but it was not known about until after the 4th International Experimental Film Competition in Knokke. It was not until that time that there was any exchange of information within Europe: up until then, most filmmakers had worked in complete isolation in their different countries. cp. also David Curtis, 'English Avant-Garde Film: an early chronicle' in Radio International, vol 190, Nov-Dec 1975, p. 176 ff.
25. David Curtis, writing in the catalogue A Perspective on English Avant-Garde Film points out in several places the significance of the printing - and development finances of the filmmakers. Printing is not, however, an aesthetic means in its own right, since comparable effects can be arrived at by other techniques. This is particularly clear in Programme No. 6, which is devoted to a sed of works that are both in content and in aesthetic, completely different from each other; in fact, they have hardly anything to do with each other.
26. Deke Sutroth, 'The Acoustic Task: Peter Gidal's Room Film 1973' in Peter Gidal (ed) Structural Film Anthology (see above, p. 110)
27. This film sits deliberately on a threshold, between being considered a work of movement and being considered a static condition. Formas art criticism has continued to maintain a stern, emphatic distinction between these two states, a division that I consider absurd. I am now interested in reducing the 'performer' aspect in order to examine certain other fundamentals. viz. temporality, light. I am presently assuming that it is possible to do this without using the customary photo-chemical and electro-mechanical processes (which have the disadvantage of being expensive, i.e. slow). I am aware of the danger of back-tracking, that behind every 'first principle' lurks another, and I do not rule out the possibility of continuing to make 'films'. However for the time being I intend to concentrate less on the physical process of production and more on the presuppositions behind film as an art activity.
30. Werner Nekes in Fifth International Film Competition, Knokke 1974/75, p. 55
31. In Tide (1974) we see 'the simulation of two symmetrically-opposed panning movements which come together simultaneously at zero. In Tide the splitting-up of one linear temporal movement into two different but simultaneously-ending stages of this movement which however end simultaneously, makes it possible to bring into relationship, through the panning motion of a tripod-camera the most varied perceptual treatments of the image-object, since every particle of this movement is combined with every other particle once in the course of the score. The score thus deploys, amongst other things, the possibility of the simultaneous presence of an object in different perspectives according to a determined pattern'.
32. Deke Sutroth in Afterimage, 6, Summer 1976 and A Perspective on English Avant-Garde Film (see above), p. 64.
33. William Raban manuscript, 1977
34. Chris Welsby in A perspective on English Avant-Garde Film, (see above), p. 84
36. cp. Wulf Herzogenrath's contribution to the catalogue and also the chapter 'Lichtkunst' in Hans Schleiwig and Ernst Schmidt, Eine Subgeschichte des Films (see above), p. 1076
37. ibid., p. 236
38. Malcolm Le Grice in 'Abstract Film and Beyond', (see above), p. 147
40. cp. Wulf Herzogenrath's contribution to the catalogue and also the chapter 'Lichtkunst' in Hans Schleiwig and Ernst Schmidt, Eine Subgeschichte des Films (see above), p. 55 ff.
The Viennese Formal Film

Peter Weibel

Austrian traditions include not only Jugendstil, Expressionism, Secession, Max Reinhardt, Hofmannsthial, Schnitzer, psychoanalysis — for which it is known abroad — but are also characterised by the fact that Vienna between the wars evinced an enormous appetite for formal creativity (it is no accident that the founder of Gestalt Theory is the Austrian C. von Ehrenfels); it should be remembered for the Functionalism of the architect A. Loos (Ornament and Crime) for the formal philosophy of the Vienna circle (Gödel, Carnap, Wittgenstein), for twelve-tone music, for the positivistic and pure legal science of Kelsen, for the Viennese kinetism of Franz Cizek and so on. The appetite for form, the search for calculated design also characterise post-war Vienna more sharply than expected. But it is a case of calculation shot through with effusive ardour (O. Wiener). This formal tradition, whose musical aspect we will be examining more closely, is worth bearing in mind when we consider the 'Viennese Formal Film'. The Austrian avant-garde film is firmly and thoroughly based on the tradition of the Austrian avant-garde in general (both before and after the Second World War), in so far as the avant-garde is a national phenomenon.

Significant in the context of post-war Vienna was the 1952 event by Arnulf Rainer and Gerhard Rühm with the revealing title 'The Loss and the Secret' ('Der Verlust und das Geheime'). The invitation bore among other things the words 'metaphysical expression blind-painting central design irrational codes medial graphics'. ('Metaphysische Expression Blindmalerei Zentralgestaltung irrationale Chiffren mediale Graphik'. Texts by Mathieu, Picabia, Tápies, and Rainer were presented. Rühm at the piano created variations on a single note, 'one-tone-music'.

A year previously he had performed his 'noise symphony' (a montage of pure nois on tape). Similarly marked by the loss of representation and by elemental reduction are the grammalogies and scribbles of Rainer's sign-gestures, which were the result of brief hand-movements, seconds in length. But the automatic scribbles assumed shape, centrally or vertically accentuated. 'Design' ('Gestaltung') and 'Codes' ('Chiffren') (shortened forms) emerge from surrealist automatism. From 1953-4 Rainer applied himself to mathematical problems of proportion, developing them from abstract painting, especially the work of Malevich and Mondrian. Collages dealing with proportion, 100 oil-paintings, and 30 sculptures were the result of this concentration upon 'the equilibrium of form', upon 'the notion of the art-work as a system of proportions which is convertible into numerical relationships' (Rainer). In his 'Over-paintings' since 1952 and his monochromes he pursues such traits of asceticism, condensation, concentration and absolutism. As a student at the Academy of Music, Rühm was particularly interested in Anton Webern and Josef Matthias Hauer (1883-1959). Hauer described himself as 'the spiritual founder of twelve-tone music' and indeed published in 1920 the first work on twelve-tone music (following a tone-colour cycle in 1918), which is thought distinct from Schönberg's later and independently developed 'method of composition involving twelve-tones with purely internal relationships to each other'. Hauer called his twelve-tone technique the 'theory of tropes'. The tropes are 44 groups of musical figures into which one can classify all 479,001,600 possibilities of composing different twelve-tone lines. Each twelve-tone piece is the organic shaping of the content of a twelve-tone constellation brought about by choice or chance, whereby each tone is totally co-ordinated with each and especially with the axiom of union (that is to say, with the totality of all musically rationalisable intervals). Thus a system of intervals accrues from the evenly-balanced temperature of the twelve tones (der zwölflustigen gleichschwebenden Temperatur'). His last creative period, especially, is characterised by a total organisation and determination of all musical components. This pre-forming of the form and structure of the whole piece of music through the series once chosen, which Hauer often established through chance operations before it became the property of 'Nomos' (in its original meaning as both melody and law), this serial development' of the musical according to an overarching structure, these minimal, rhythmical variations, make Hauer not only a forerunner of the musical avant-garde alongside Cage, Terry Riley, La Monte Young, Steve Reich, etc., but of similar procedures in creative art and in film.

Arnold Schönberg, the founder of the Viennese School, wrote to Hauer in 1925: 'For instance I have also already observed numerical symmetries in my own works. In the first quartet, for instance, where so much occurs, unconsciously, divisible by five. Or in the serenade, where in the variations the theme is made up of 2x14 tones in 11 bars and the whole movement is deliberately 77 bars in length... or in the sonata, with its 14 eleven-bar lines.' In 1928 he wrote of the third movement (composed in 1920) of the Serenade Opus 24: 'The interesting things about this piece are only the numerical relationships which here are thoroughly laid down as a basis for construction.' On the development of his twelve-tone technique he wrote in
1937: 'In the period after 1915 the perpetual goal in my work was to consciously base the construction of my works on a unity of established ideas, which should generate not only all other ideas, but also prescribe their accompaniment, the “harmonies”.' This unifying basic principle, which is linked to the classical forms of counterpoint, Schönberg found in twelve-tone technique. The term ‘counterpoint’ derives from punctus contra punctum, which can signify ‘point against point’ or ‘note against note’, and indeed, firstly, full notes against full, secondly two notes against one, and therefore half-notes, thirdly four notes against one, and therefore quarter-notes, and fourthly, in syncopes. The four classical forms of counterpoint (basic form, inversion, retrograde, and retrograde inversion) we will discover later in serial technique. In the case of twelve-tone music it is a matter of ordering the sequence of the 12 tones of the chromatic scale (the 12 half-tones of the octave) into a definite series or pattern of rows, in which within the 12-tone sequence drawn up none may be repeated before the remainder have appeared. All 12 tones are equally privileged, there no longer being any key-note. As a point of departure for this basic row or for any other form of the row one may take any of the 12 tones of the chromatic scale. The four fundamental types or rather forms of the row are the basic form, inversion (reflection), retrograde (backwards movement), and retrograde inversion. Four rows to each 12 tones, with the result that the row can appear in 48 different guises, in which as many connections as possible should be made, and indeed through correspondences within the row, such as symmetries (largely of a numerical nature) analogies, groupings into cells, etc. We can see that in the row classical canon-forms recur such as the retrograde canon, and the circle canon. The concept ‘row’ therefore derives from the description of ‘compositions involving twelve tones with purely internal relationships to each other’. Not until the work of Webern, however, does the row assume the aspect of a function of intervals, as an hierarchical function, which produces permutations and announces itself in a pattern of intervals. The New Music then commences with Webern’s crucial step. Even if Webern is occasionally over-interpreted, his work still has the merit of offering the post-war period so many and such crucial possibilities of interpretation.

In distinction to Schönberg, who can be reproached with thematically based composition and Romanticism, Webern recognised the inner essence of serial technique. The row is for him the “original form”, the germ-cell, from which it further ensues. The twelve-tone row is not a “theme” in general. But I am able, thanks to the fact that unity is now guaranteed by other means, to also work without a thematic — and so much more freely: the row secures coherence for me.” Webern’s row-technique provided the key-note for serial and aleatory composition. Following Webern’s example, the row-principle was extended to all the characteristics of the phenomenon of sound: numerical relationships between intervals of pitch, duration, volume, and timbre. Serial thinking became concerned with the structure of the whole work. This broadening of the law of row to take in not only the sequence of tones, and pitch, but also the sequence of proportions for tone-duration, volume timbre, etc led the musical avant-garde of the fifties to the key slogan: ‘Equality of opportunity for all parameters’.

The rigorously serial music also gave rise, however, to an informal music. For the danger which arose from the creation of numerical relationships between twelve different tones, durations, volumes, kinds of stress, timbre, etc. was that it would deteriorate into a primitive, mechanical set of connections. From this increasing concern with determination there naturally sprang the demand for indeterminacy, for the aleatory, for chance. Through chance operations an attempt was made to give back some degree of freedom to both composition and composer — in the form of aleatory music, informal music.

The above discussion of the concept of the row has already perhaps alerted the attentive reader, through its choice of vocabulary (proportion, interval, numerical), that I am already speaking, in basic terms, about the sources for the early period of the ‘structural film’. For slight alterations to the vocabulary will turn these musical analyses into the cinematic. This shows, over and above personal evidence (Kubelka, Tony Conrad, Michael Snow, etc., are also musicians), that the early structural film springs from a musical inspiration, in contrast to the late structural film, whose sources are problems of visual perception (such as, for example, W. and B. Hein’s Structural Studies) — a contrast, a difference, which unfortunately remained unnoticed in specialist discussions. The formal film’s reliance on music as the most highly-developed formal (non-representational) art occurs as far back as its greatest early master, namely Viking Eggeling, not only in the case of film-titles such as Horizontal-Vertical Mass, Horizontal-Vertical Orchestra, Diagonal Symphony and in various theoretical concepts from his ‘Presentation of the Art of Movement’ such as for example ‘the ground-base of painting’, but also in his compositional technique: ‘His experiments at first borrowed from the complexities of musical composition, its division of time, regulation of tempo and its whole structure.’

I permit myself to delve more precisely, in the interests of deepening discussion of Webern’s musical innovations, in so far as the central founder of the Viennese School of formal film, Peter Kubelka, is strongly influenced by Webern. Webern’s style has been described as follows: the spirit of asceticism, an ascetic in sound, architect of the mirror-row, musical aphorist, the condensed style, musical short-hand, abstraction, molecular form, permutation procedure, punctual style, a man obsessed by formal purity to the point of silence and so on. Webern’s intention of clearly articulating form against a background of simple principles led him to make multiple reductions, not only as in Opus 24 (concerto for nine instruments), where the row consists not of 12 but of 4 × 3 tones, and the relationship between the three tones is the same in all four cells (groups of three tones). This restriction to a small number of interval-relationships was the expression of his preference for the exploration of the musical microcosm, or rather, for form in miniature, was the expression of the compulsion towards concentration, where everything superfluous and inessential is lacking and where an extended temporal development is incompatible. Webern arrived at compositions which because of their brevity and concentrated dynamic (in terms of forms and relationships) led to the frontiers of the possibility of perception (especially in the concert-hall). He was on account of this
foolishly reproached with having 'cut the tie with the listener'. His shortest works are Six Bagatelles (for String Quartet), Opus 9, Five Pieces (for Orchestra), Opus 10, Three small pieces (for Cello and Piano), Opus 11. The fourth piece from Opus 10 lasts for twenty seconds. The third piece from Opus 11 confines itself to ten whole bars. Opus 9 (1913) lasts altogether for less than four minutes.

The final condensation made by Webern was the reduction of music to the single tone and the interval. This led between 1950 and 1955 to the 'punctual style', to composition by means of 'points' (of 'counterpoint'). This trend towards brevity, towards the gramophone, this habit of thinking in single tones and in intervals led to the final reduction: the liberation of the pause, which is a singular innovation in the field of rhythm, that conception, which by means of exact organisation binds the tone to the pause. Music is precisely not only the art of tones, but is much more definable as a counterpoint of sound and silence! (Boulez). Webern's technique of creating spaces places the pause in a position unthinkable previously in the history of music. Correspondingly the pause began to appear purely optically, in a special sense, in the picture created by the notes. For the first time, in the work of Webern, the pause became 'the component in a rhythmical structure and, simultaneously, a dynamic value' (H. K. Metzger, Reise 2/49), for the pause has indeed, in common with the note, the quality of duration. Since Webern's art of tones and pauses, music is no longer only the art of the tone, but also the art of silence. The subsequent growth in musical importance of the notion of silencevacancy, and hence the opening up of music to 'extra-musical tones', is exemplified by the title of John Cage's first book, Silence, and his musical praxis: 'One should cling to emptiness and to silence. Then things, I mean sound phenomena, will come forth into being of themselves' (Cage). This conception of music, in which tones count as 'points in time' and musical times as computable, follows the tradition of Hegel. References to the role of silence and of chance, and also to numerical relationships, in the work of Mallarmé are equally significant. Of interest in this context, however, is a reference to Wittgenstein's appreciation of music as it appears in numerous musical analogies and examples in his work. In his Remarks on the Foundations of Mathematics he (typically) foregrounds the 'structural aspects' of music (especially classical Viennese music) and elaborated a concept of 'structural listening', as also advocated by Webern (also Berg, who spoke of 'listening through a context', but of whom Webern radically maintained that he 'must not be perceived'). We can therefore see that in music the concept of 'structure' comes to play a role decades earlier than in avant-garde film. To this fact, finally, cannot be attributed that absurd confusion which takes place in discussion of structuralist film, noisily ranging the spectrum from musical structure to French structuralism, in which of course, the essential and specific examination of the structures of perception and the cinematographic codes is overlooked.

This somewhat lengthy musical exposition is legitimate in so far as the reader allows me it, not only as a theoretical introduction to the formal film on my part, but also as an illustration of my thesis that Austrian art history also has strongly constructivist-formal tendencies, which came to life again in post-war Vienna, and not only the expressionist tendencies of Klimt, Schiele, Gerstl, Kokoschka (mixed with late surrealism).

The poetry of the 'Vienna Group', for instance, evinces formal traits. Gerhard Rühm (born in 1930), who originally became chiefly active as a writer in 1954, was not only especially influenced by Webern in terms of music. His 'One-Word-Panel', his 'punctual poems', testify, along with his already-mentioned 'One-Tone-Music', to Webern's discovery of the single tone. Oswald Wiener, the jazz musician, was among others influenced by Ernst Mach, Fritz Mauthner, the Vienna Circle, etc. Formal influences from abroad included Dada, literary Expressionism, Constructivism. For the sake of completeness I also mention the symbolist, surrealist influence of H. C. Artmann. Thus from 1954 onwards there appeared constellations, formulaic poems, concrete poetry, written films (in sketch-form, by Rühm), number-poems, montages; the plan for a functional language by Rühm and Wiener; sketches for theatre-pieces with a serial basis. Formalism went so far as the mechanical production of poetry (already established in the montages) as in the 'mechanical inventiveness', a mechanical procedure designed to enable anyone to produce poetry. The artist and film-maker Mar Adrian Stark was also involved. A high-point of these formal tendencies is the text The bird sing., A poetry machine in 571 parts by Konrad Bayer (after a sketch by O. Wiener), whose skeletal prose also testifies to a reductionist attitude to form comparable to the performances of the two 'literary cabarets' of 1958 and 1959, and the later or contemporary Fluxus events and Happenings.

By the middle and end of the fifties therefore, a complex cultural climate — if not the official culture, self-evidently — had already been developed, in which new formal avenues were explored, of course occasionally mixed with such contemporary tendencies as Existentialism, Neo-verism etc. The genesis of the Viennese formal film is to be seen in the context of this 'formal climate'. The pre-occupation with time deriving from the Viennese definition of music as a time-structure is already manifest in the first films by the earliest representative of the Viennese formal film, Herbert Vesely — before he moved to Germany in 1955 and (cum grano salis) into TV work. 'These Evenings' (An diesen Abenden) (1952), from a poem by Trakl, is certainly expressionistic, but already highly stylised in terms of composition, montage, and the use of sound; a sung commentary accompanies individual scenes which, shot from various points of view, are frequently repeated in the course of the action. Flee no more (Nicht mehr fliehen) (1955, 35 mins), with the music of Gerhard Rühm is not only an extraordinary document of the times on account of its existential pessimism, tuning in with the period (the action takes place in the desert), but literally in terms of its handling of temporal and narrative forms. 'The mosaic of images and sound tones open the structure of the action and created a texture out of incident and feelings — an ambivalent structuring' (E. Schmidt, Jr.), similar to the structuring predominant in the film Mosaik im Vertrauen by P. Kubelka and F. Radax (also 1955). This independently developed formalism he also applied in his feature-film planned since 1959, The Bread of the Early Years; (Das Brot der frühen Jahre) (1962), based upon H. Böll.
Formal temporal structures are equally a striking characteristic of the early experimental works by Ferry Radax, who attended the Rome and Vienna film-schools from 1953-1956. In 1952 Radax was cinematographer on Veselý’s These Evenings and in 1954-55 made the film Mosaic in Confidence (Mosaik im Vertrauen) with Peter Kubelka, after the film The Raft (Das Fluss) (1954) had remained no more than a fragment.

The first part of the title explicitly refers to the structure of the film, a network of connections between documentary material (for instance, newsreel shots), of scenes, enacted by amateur actors, influenced by the Neo-verism of the time, and of autonomous optical and acoustic elements. A lean, unshaven man; a woman hanging out washing; a railway-station and railway-tracks; an arrogant and modish couple; a woman’s legs getting out of a car; a limousine crashes against railway-barriers; a newsreel-sequence of the multiple pile-up at the Le Mans auto-race; an electric bulb swings into picture, etc.; on the soundtrack: snatches of dialect, noises of tape-recorders and pistons, radio, etc. Sound and picture join together in a new unity through montage, whose technique controls the structure of the whole film: simultaneity is in operation rather than chronology. Yet the sculptural attitude towards the material, all the more reinforced by the occasionally extremely stylised camera work of Radax, tending towards photographic abstraction, is sometimes at odds with the influences of Italian Neo-Realism and of the symbolic realism of an Eisenstein (Kubelka). The technique deployed for the handling of the material and its organisation (multiplicity and impenetrability of relationships) repeats the Existential ideology of the period (Angst, strangeness, hopelessness, meaninglessness, escapism, etc.). In the case of this homologous combination of existential message and material message-form it is interesting to note how the expressive concept of montage has become a narrative concept. This transition marks the point of departure for the crucial shift made by the Viennese formal film, as we shall see later. It the films of the Russian formalists Eisenstein and Vertov on the whole still followed a narrative form interspersed, as it were, with moments of montage, here in fact the whole film maintains a montage-structure. Montage no longer only serves the sequentially limited articulation of meaning as is the case in the expressive concept, but extends to include the whole film: all parts of the film inter-relate. The sound-image montage of Vertov, especially, was a determining factor in this expansion. The courses now set were these: either to carry over the overall structure of the montage into the small organisms of the work, in which case then every the tiniest part (that is to say, the single frame) obeys a formal law, so that moreover the narration paradoxically is lost (as is curiously the case with the process of permutation, which also contributed to the discovery of the twelve-tone row-technique, and later to its dissolution), or montage itself becomes a form of narration. Kubelka followed the first route, Radax (and Vesely) the second. It is clearly the case that narrative montage keeps the expressive alive, while small-scale montage becomes so compressed that montage disappears; montage is transformed into row-technique.

This notion of narrative montage is pursued and refined by Radax in his next film, Stop Sun!! (Sonne hält!) (1959-62, 35 mm, 26 mins), with Konrad Bayer, a member of the Vienna Writer’s Circle as writer and actor. Bayer had also already collaborated on Mosaic in Confidence. This formally rich and complexly articulated avant-garde film broadened the extremely subtle contrapuntal montage of image and sound by means of film-techniques such as positive and negative images, time-lapse, rapid cutting, space-time ellipses. The division of space and time into frames, whose autonomy, whose rhythmic reorganisation are consequences of the basic and inalienable filmic art — shooting (an image) — was to assume still more radical and more prominent forms than in the case of Vesely and Radax, namely in the work of Kubelka.

We have stated that mosaic in Confidence (1959) by Kubelka and Radax marked a parting of the ways. We have seen that in the case of this film the work already evinced a very marked degree of stylisation particularly through the use of editing, montage, time-structure, etc. In order to understand why Kubelka, after this film, extended the overall structure of montage to include the smallest units (frames) and then organised the latter according to exclusively formal laws, and how therefore montage turned into row-technique, brief reference should be made to Kubelka’s biography and education. Kubelka, born in 1934 into a highly musical family, was for three years a choir-boy in Vienna, studied film at the Academy of Music and Performing Arts in Vienna and at the Centro Sperimentale di Cinematografia in Rome. However banal it may sound, through his musical training and continuous theoretical as well as practical precondition with music, Kubelka’s visual sensibility approached the musical, so far-reaching and complex were the results — in the shape of the first true Viennese formal films. The fact that after Mosaic Kubelka turned away from narrative montage and followed the trail, already laid in Mosaic, of a total formalisation of temporal form beyond the semi-narrative (in diametrical opposition to Radax), was occasioned by Kubelka’s familiarity with music, especially with the twelve-tone music of the Vienna School. In a climate of ‘reduction’, as was sketched in at the beginning of this article, Kubelka, under the influence of the discussion of Webern — speaking formally, technically, and in an abbreviated form (with all its correspondingly partial validity) — transferred and applied twelve-tone techniques to film — a constellation obviously more probable and more typical for Vienna than for Paris or Hamburg. As context and background for the three purely formal films of Kubelka (Adebar, Schwechtier, Amulft Rainer) see two traditions: that of the Viennese School of Music and that of Egelting, Vertov, and Dreyer. Vertov was the strictest Russian Formalist, who had already postulated a frame-by-frame style of ‘film writing’: ‘Film-writing is the art of writing with film-frames’. Vertov it who ‘edited the film as a whole’, and who (in diametrical opposition to Eisenstein) chose to ignore the route of mise-en-scene in his search for the ‘Kinogram’. Many of Vertov’s maxims were directly taken over by Kubelka, such as: ‘Material-artistic elements of motion — is provided by the intervals (the transitions from one movement to another), but not movement itself.’ This ‘interval-theory’ of film of course easily connects with an interval-theory of music. Kubelka similarly
Kubelka himself supplied the following organisational principles for this film:

1. Each shot is 13, 26, or 52 frames in length;
2. The first and last frame of each shot have become frozen frames 13, 26 or 52 frames in length.
3. Each cut marks a switch from positive to negative or vice-versa.
4. The sound is a loop, consisting of four phrases each of 26 frames;
5. Once each possible combination of the shot has been achieved, the film ends. An analysis by Valie Export shows that the film consists of 16 units of montage. Since each unit appears in both positive and negative, this produces 32 elements in the film. Each element appears twice, which means that each unit appears four times. The film therefore consists of 64 elements. Figure 1 clearly shows the simple transfer of the four generative types of the row: basic row, inversion, retrograde, and retrograde inversion. Accordingly, each unit appears four times. Adebar is virtually an endless loop, for the film begins with negative and ends with positive. Figure 2 is a tabulation of the frame-count per unit. It will be seen that only doubled figures are involved (13, 26, 52), which alternate with each other. Figure 3 demonstrates the system of relationships of frozen-frames and single-frames (like that between form and pause). Here, too, we see an interlocking in the style of the row. On this point one should note that a true single-frame hardly ever appears, but rather extended single frames, the so-called frozen frames. This clearly demonstrates an interest in the alternation of rest and motion — like the one sound and pause in music and the equivalent handling of both similar to the equivalence of all musical parameters.

It is the next film, Schwechten (1958), a film commissioned by the Schwechten Brewery, which first follows Kubelka's notion that cinema speaks between the frames. From Adebar on the sound becomes graphically legible in Kubelka. Thus a common metrical system and a precise formal co-ordination of sound and image are made possible. While Adebar is defined by units and consequently also by sounds, Schwechten, in black-and-white and red, is completely constructed in terms of the single frame and consequently based on a pure tone (a resonance with a simple sinusoidal progression). The film consists of 1440 frames (making up one minute), most of them black-and-white, some red. The two tones have a precise relationship to the image. Whenever red appears, the two sinus-tones, the 'pips', are heard, the higher introducing the lower. The distances between the single red frames become shorter and shorter, until the name of the product being advertised, Schwechten (a beer), appears in red as the end of the film, whereupon the high tone does not fall away into the low, but is held for the duration of the image. Kubelka has himself provided the following organisational principles for the work:

1. The alternation of black leader and image-frames follows a repetitive pattern of 1 black frame, 1 image-frame, 2 black-frames, 2 image-frames, 4 black-frames, 4 image-frames, 8 black-frames, 8 image-frames, 16 black-frames, 16 image-frames, then it begins again from the start.
2. The length stipulated was exactly one minute, that is 1440 frames.
3. There are 12 passages of red image-frames and red frames, which become more and more frequent towards the end of the film.

4. The sound is only heard during these red phases.

5. There are four different images in this film.

In the construction of the film, Kubelka proceeds, amongst other things, as follows: the four images (one recognises again the four forms of the row) were copied in negative, positive, in reverse, and turned on their side: 16 units emerged, in other words. Each of these units he then copied several times and lined up behind each other in a loop. In arranging these units a, b, c, d, etc., he also noted the moment of slow or rapid movement. These loops of units he then superimposed. From amongst these, according to the stated rules and still others more complex, the single frames of the finished films were selected as though in a process of summing up, in which very often only one or two frames were selected from a unit. From principle (1) we can see that 16 frames usually (with two exceptions) make up the longest unit of frames. If we total up moreover in (1) the units of the repeated pattern, namely 1, 2, 4, 8, 16, we arrive at 31, which, together with the 31 of the black frames gives 62, a component-count which was in fact the same for Aederb, namely 62. The exception mentioned above Kubelka had to make obvious, in order to arrive exactly at one minute, for during film projection 24 frames are shown on the screen every second. In 60 seconds that makes 1440 frames: economy of frames. With the number 62 he would not arrive at such a round figure by means of any even-numbered multiplication. In this context it is also an interesting question why Kubelka did not choose 24 frames for his basic row and correspondingly 12, or rather 48. Aederb and Schwechter were, in spite of all permutational procedures and in spite of the serial development from loops and single-frames, still representational film studies of movement and behaviour. Extreme reduction was achieved by Kubelka with the film Arnulf Rainer (1960). Probably influenced by the ‘over-paintings’ and black monochromes of the painter Rainer, he constructed a film out of only four (this number is already familiar to us by now) elements, which in his opinion are the four basic elements of film: light, darkness, sound, silence. The film was made without a camera, simply from black and white frames. Kubelka talks of black frames, white frames, black sound, white sound. This aims to subject the relationship between silence and sound, noise and peace, to the visual proportion, to optical intelligibility and reception. White sound means the synthesis/interference of all frequencies in the region of audible sound-vibrations. Black sound means interference with the vibrations to the point of their release: silence.

Since, thanks to these four elements, endless combination, lay before him, and unlike the case of the two earlier films, where, through the limitation of the image-material, the frame-count, the units, and so on, the material, with the help of the row-technique, was soon exhausted, this time Kubelka had to resort to complicated production-schemes and to mechanical aids. The first familiarisation experiment in this endless field of material was the following, as it were, computer-style enumeration of the possible combinations of black and white (and silence and sound) within an increasing frame-count. In terms of a unit of two frames the possibilities for black (b) and white (w) are so: b w, b w, b w, w w, b w, w w, b w, w w. In a unit of three frames: b b b, b w b, b w b, w b w, b w w, b w w, w b w, w b w, w w. In a unit of four frames there were already as many possible combinations of black and white as this: b b b, b b w, b b w, b w b, b w b, w b w, w b w, w b w, w b w, w w, w w, w w, w w, w w, w w, w w, w w. It was out of such units that Kubelka had to construct his film: for example, b b w, b b w, b w b, b w b, b b w, b w b, b w b, w b w, w b w, b w b, b w b, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w b w, w w, w w, w w, w w, w w, w w, w w, w w, w w, w w, w w, w w. Kubelka constructed phrases which last 2 or 4 or 6, 8, 9, 12, 16, 18, 24, 36, 48, 72, 96, 144, 192, 288 frames. There are 16 sets of phrases, each 576 frames long, that is 24 seconds. In addition there is a 24-second interval of darkness and silence in the sixth section of the film, so making a total of 6 minutes 48 seconds. As for the rest, the number of sets — 16 — reminds us of the 16 units of Aederb and Schwechter. We will now move on rapidly to examination of the interdependence of sound and image. Since the representational function of this film is equivalent to zero, it is also Kubelka’s most musical film. Hence it comes as no surprise that Kubelka has published a score for this film, according to which everybody can copy the film precisely and exactly as Kubelka himself made it. With this film Kubelka’s musical conception of film (which after all stands in the European tradition of the abstract, graphic film) is fulfilled. Not only the score, virtually identical with the film, is evidence of this. Webern’s emancipation of the pause as being of equal value with the sound, together with the emancipation of darkness vis-à-vis light, and further the equivalence of sound and image, has here truly reached its ultimate exposition.

Extraordinarily, 1960, the year of Rainer, not only marked the end and high-point of a distinct development, but also introduced, with Kurt Kren’s 48 Heads from the Szondi Test, a new development which might be seen at a superficial glance as a repetition of the first. Kren knew Kubelka’s films. Indeed, he had completed his first film, Experiment with Synthetic Sound, as long ago as 1957.

But an essential change in tendency must not be overlooked, namely, from a musical structuring to a perceptual. The very title of the second 1960 film refers to an experiment in the psychology of perception. The tendency towards the abstraction of graphic solutions in the domain of formal organisation, as it culminated for instance in the abstract light-play of Rainer, is here rejected. The succession of photographs (in realistic style) is not meant to analyse motion or to synthetically simulate it, but to refer to perception itself and the psychic mechanisms which accompany it. It is therefore a subject-oriented, and not, as formerly, an object-oriented process.

Translated by Philip Drummond

1. Hauer’s scores are often simply a sequence of numbers, as abstract.
3. An extension of the principle of the equivalence of all 12 tones, of the ‘equal power of all twelve tones’ (Webern, op. cit., p.50), in contrast to tonality, where reference is made to a basic tone.

*Figures 1, 2, and 3 for Aederb are not given in the catalogue (trans. note).
The History We Need

Malcolm Le Grice

The underlying thesis of a historical construction not only affects the ordering of facts but also the articulation of what constitutes the facts themselves. In addition a historical formulation has a different function for the involved practitioner in a field than for the less involved 'general public'. For that nebulous 'general public' (in whose name so many decisions are made) a historical exhibition like 'film as film', as well as drawing attention to a particular field of past activity also validates those current practices which derive from them — providing them with historical credentials. In effect, whilst a current practice is evidently determined by its historical relationship, definition of a structure for this causality is a constructive production very much parallel to the practice itself. It is only when the historical enterprise becomes an aspect of defining and analysing the determinants of current practice that it begins to have a real function for the involved practitioner. Unfortunately, the basic level of public awareness in the area covered by 'Film as Film' is such that the didactic intention has played the major part in defining the direction of the exhibition. That this may be seen as inevitable does not remove the need for a critique and this article affords me the luxury of making one from the standpoint of the involved practitioner. Bearing in mind that the 'we' of the title may be no more that a conceit which disguises an 'I', it symbolizes an attempt to be more than idiosyncratic. The 'we' addressed is broadly the involved practitioner, film-maker or theorist so committed as to be illiberal about films or their presentation. 'The History We Need' implies a recognition that a neutral and inclusive history is broadly impossible and that the historical enterprise should be aimed at aiding the development of contemporary practice. Whilst clearly given a didactic framework, the involved practitioner will polemicize inclusions or exclusions, recognising how this serves promotion and suppression. On the other hand, even outside the polemical motive, selection and suppression is inevitable, implying no question of falsification but one of evaluation and priorities.

One of the problems with the current exhibition is the difficulty of defining its underlying thesis. This difficulty has increased with the expansion of the exhibition through a committee structure for the London presentation. In its original form, being largely conceived by Birgit Heinz and Wulf Herzogenerath and aimed at a particular situation in Germany, some of its underlying principles were more readily discerned. Even then, expediences, like limited availability and the presentability of works in the art gallery affected the selection, tending to obscure some principles. Other inclusions, particularly the extent of attention to the American West Coast abstract films, signalled unresolved and, in the context of the exhibition, seemingly unproblematic contradictions.

Before attempting to unravel some of the fundamental assumptions which underlie 'Film as Film', I should point out that the critique is simultaneously a self-critique. This exhibition was initiated as one stage in a series of publications and exhibitions which have developed and refined the concepts it embodies. My own writing, in particular Abstract Film and Beyond, has formed a part of that development. Its historical view is very similar to that which underlies 'Film as Film'. My own book is based on many of the same fundamental assumptions, makes the same suppressions for similar reasons and fails to resolve similar contradictions.

Two fundamentals for the cultural enterprise represented by this exhibition can be defined by tracing a negative and positive expression. Negatively, it is contained in the rejection of what constitutes the mainstream of commercial narrative cinema. Positively it is the progressive exploration of the potentialities of the medium in-it-own-terms. The consistency of the positive expression with the basis of modernism is evident — 'Painting as Painting', 'Sculpture as Sculpture', 'Art for Art' — a general set of notions designating special and particular qualities to the medium in question. Thus the consistent tendency in this framework to talk of 'Film', the material, rather than 'Cinema' which has come to mean the form of the dominant commercial film institution. The negative and positive expressions are in a sense axes which have simultaneously motivated the actual practice. In general it would be tempting to argue that the negative expression has been primarily a feature of theoretical pronouncements and critical writing supporting the practice, which, on the other hand, has attempted to seek a non-narrative rather than anti-narrative cinematic form. But already some caution must be introduced on the degree to which negation functions as a constructive principle within art work. More at issue is the problem of defining what is being rejected in the general opposition to narrative cinema.

At first look the cinema, born only a few years ago, may seem to be Futurist already, lacking a past and free from traditions. Actually, by appearing in the guise of a theatre without words, it has inherited all the most traditional sweepings of the literary theatre. Consequently, everything we have said and done about the stage applies to cinema. Our action is legitimate and necessary in so far
as the cinema up to now has been and tends to remain profoundly passive. . .'. 1916 Futurist manifesto.1

'Film drama is the opium of the masses'. 1920 Dziga Vertov.2

'All current cinema is romantic, literary, historical, expressionist, etc.' 1926 Fernand Léger.3

'Narrative is an illusionistic procedure, manipulatory, mystificatory, repressive.' 1971 Peter Gidal.4

These few quotations briefly illustrate what has been a continuing, consistent and explicit rejection of the dominant narrative cinema. On the one hand, this rejection is of the commercial cinema institution with its constriction of independent experiment and radical concept by the stranglehold high finance has on production, publicity and the presentation system — a deep cultural control. On the other hand, and unclearly differentiated from it, is the rejection of the forms and devices of narrative — identification with characters, story structure extending to a more general rejection of work whose images are broadly 'expressionist' or 'symbolical'. That the dominant cinema has grown up on the basis of the forms of identificatory narrative indicates a correspondence between them and the social effects desired (consciously or otherwise), by that sector of society controlling its finance.

Within the history represented by 'Film as Film' and Abstract Film and Beyond, the most obvious first level of exclusion is based on the rejection of works made within the dominant cinema framework. It has been seen as confusing to discuss work like The Cabinet of Doctor Caligari or Gance's Napoleon for example even though aspects of certain films from this context might relate to the motives of 'Film as Film'. But much more problematic has been the definition of the borderline of exclusion of films within the experimental area whose makers also reject the commercial cinema institution. (Some film-makers who are otherwise considered as central to the history even have works excluded if in some way they suggest a return to 'narrativity'.) For example, whilst Man Ray's first two films, Retour à la raison and Emak Bakia are both clearly 'in', I have not been alone in the impulse to reject his subsequent films as a retrogression. Man Ray's case illustrates this borderline which represents the basis of the major and most contentious exclusion made by this version of experimental film history. Though some of these works are included in the film programme of the London show, whose selection has been on more liberal and inclusive lines, the surrealist, mythic and broadly symbolist work from the Bunuel-Dali collaborations on Un chien andalou and L'age d'or, Dulac's Coquille et le clergymen, through much of the mainstream of the American Underground film, like Maya Deren, Ron Rice, Jack Smith, Gregory Markopoulos, Kenneth Anger and so on has been placed outside this historical concept. Most of the work in this direction rejects the dominant cinema institution but for the concept of this history does not sufficiently reject its forms. Whilst in my book I explained this exclusion primarily on the basis of scope, it now demands fuller consideration, resting on the need for a better articulation of the distinctions within the broad category of 'narrativity'.

If this history is seen as the history of a certain contemporary practice, loosely designated the 'formal' or 'structural' film (in other words assuming the validity of a certain state of current work and tracing its precursors, the history of its ideas), then the loosely defined surrealists, symbolist axis is difficult to integrate. But its oversimplified exclusion on the basis of narrativity masks many issues within the work which is included. As well as the issues of spectator 'identification' to which I shall return, the broadly symbolic work initiates consideration of the mechanisms of psychological association as it functions in the representational image. A very large proportion of so called 'formal' and 'structural' film makes use of representational imagery. The psychological significance in these films needs attention and in this respect the critical tradition which has emerged along the symbolist axis is a necessary reference. Invariably, the issues of significance within the image of much 'formal' work is masked by attention to the formal manoeuvres. Whether reference to the surrealist, symbolist tradition would function to refine further exclusions, rather than include films from this axis is not to be pre-judged, but if there is a distinction in kind to be made between the image significance in the 'formal' film and the surrealistsymbolist work then it needs clarification.

Image significance is not a problem confined to films which make use of representational imagery. Even in extreme non-representational art, the production of the image and its subsequent 'received' meaning is affected by the mechanisms of psychological association. The image, however abstract, is read associatively and signifies, produces and takes on meaning. Furthermore, and most important in 'formal' cinema, it must be understood that association and significance are not processes of meaning confined to the constituent images, representational or abstract, but belong also to the formal manoeuvres themselves.

What is designated form or structure in film is primarily related to the pattern of its temporal construction. Each work is a particular instance of temporal pattern, having likenesses to, and differences from, other instances of form. It, like the image, is subject to the mechanisms of association and, by its instances of difference, signifies. Rejection of symbolist/surrealist practice does not eliminate the issues of significance from 'formal' cinema but may encourage a false assumption in the practice that it does.

Through attention to the temporal manoeuvres (form) in cinema we may clarify some of the issues in the rejection of narrative. Rejection of the commercial cinema institution as repressive through vicarious satisfaction has carried over to a general rejection of the narrative forms through which it functions. In the film culture represented by 'Film as Film' the rejection of narrative structure might be simply interpreted as the basis of a search for 'new' form, but I think it is more properly understood as primarily motivated by rejection of the social function associated with it. A number of recent works by film-makers who come clearly out of the culture represented by 'Film as Film', have to one degree or another worked in areas which have related to the mechanisms associated with narrative. That Rameau's Nephew by Michael Snow, or my own Blackbird Descending (Tense Alignment), for example, might be seen as some 'return to narrative' is, in general, false. At the same time these films and works by Hammond like Some Friends or Gidal's Condition of Illum...
tion tend to problematize, rather than simply oppose, some of the mechanisms to be found in narrative film. Work in this direction demands a more refined definition of narrative because implicit is the question: 'are all aspects of narrative irrevocably embroiled with the repressive social function it has come to serve?' This development in the practice has been accompanied by an emerging theoretical concern focusing on the psychological formations in the activity of the film's spectator rather than on the intentions or psychology of the maker. This is particularly true of the film-makers like Hammond, Gidal, Dunford and myself who, more or less from the outset of our film work, have couched the issues of structure primarily in terms of the spectator's act of structuring. Recent theoretical work from another direction, stemming mainly from Christian Metz's 'Imaginary Signifier' article, indicates that some awareness of this problem exists outside the limits of 'structural/materialist' film theory. This theoretical direction is concerned to focus on fundamental psychological strategies involved in the process of identification. Many questions are raised by this radical change of focus from the issues of film structure embedded in the concerns of film-making to that of film viewing. For example, if, by implication, certain processes of structuring meaning or unconscious reaction are either fundamental or very deeply embedded by the culture in the psyche how can the posture of diametric opposition dialecticise these processes? A continued discussion of these particular problems is outside the scope of this article, but it indicates some possibility of distinguishing between the processes of identification with portrayed characters, identification with the film's view-point on the scene via the camera on one hand, and the consequential structures of narrative on the other.

In the simplest sense, narrative is the story, it is the story told in the act of narration. A narrative represents a temporal chain of occurrences, a thread of causality. The narrative is not the events themselves, but a representation of events. It is a method of representing consequential temporality by way of a temporal presentation — the narration. A sophisticated narration may present the narrative in a sequence which does not represent the events in a simple sequential correspondence (making use of conventions like flash-back for instance), but whatever the complexity, one temporality is used to represent another. A narrative may represent a series of events which have taken place (in the world) or it may represent, from fragments of the possible, events which never have, nor will take place — a fiction. The former, based on 'fact', is not strictly a fiction, though as a narrative, with its inevitable linear ordering, its selected representation of causality is not simply factual. The narrative form within 'documentary' cinema raises its own particular questions of veracity and the relationship between document and documentary is of particular importance to film, based as it is in the mechanical recording of photography. In a practical sense, the culture represented by this exhibition raises the general question of the relationship of a presentation's sequence to the implications of meaning brought about by that sequence.

Though various experiments have been made in presenting films without sequential projection, it is none the less basic in general to film that through projection film controls presentation sequence — one section inevitably precedes another. In the history of the search for non-narrative structure, the notion of simultaneity represents the earliest alternative to developmental narrative. As in aspects of Dziga Vertov's Man with a Movie Camera, for example some of the sequential presentation does not imply that the events depicted took place sequentially as a consequence of each other, they are rather to be read as continuing independently at-the-same-time, related by some thematic similarity. The dissolution of consequential relationship in the narrative sense makes possible various systems of connective relationships between film images or sequences, analogous in a sense to collage as opposed to conventional story montage. These concepts attempt to establish a kind of a-temporality within the temporal presentation of the film. Many of the formal developments which have occurred with this history, including Brakhage's Dog Star Man and Kren's development of editing systems on mathematical principles stem from the concept of a-temporal montage.

Another direction which has initiated alternatives to narrative form comes from stress on the presentation sequence itself, mainly by way of repetition devices. This work, traceable back to Léger's Ballet Mécanique, subverts temporal representation by containing the consequentiality of image/shot transformations within the film itself. Or, if there are no transformations within the film then the transformations in perception or response in the spectator become central.

An allied direction, but leading to other conceptual problems, is that of extremely minimal change, not necessarily involving repetition. This direction mainly emerges from Andy Warhol's early films, like Empire and Sleep, drawing attention to the material passage of time in the presentation. Though there are works which follow Warhol which concentrate on duration without use of a camera, when based in photographic representation the material durational aspect becomes linked to those problems surrounding the notion of document.

Within the specific limits of the mechanism, the photograph as a mechanical trace of particular aspects of reality has veracity as a document — evidence within definable limits. With particular conditions of unbroken durational recording, cinephotography carries similar implications and problematic. This has little to do with 'documentary', which by manipulations at the level of sequential reconstruction breaks any possibility of durational veracity. Work which is an extreme of photographic, durational representation in fact subverts temporal representation by a change in terms. This involves the need to distinguish between representation and recording. When the cinephotographic makes its specificity evident within the work the record is no longer read in its secondary sense as narrative representation but as temporal document. It is outside the present scope to pursue the implications of this difference and the conditions necessary within a film's structure to resist the reading of 'record' as 'representation'. My further reference to cinematic representation carries the implication that this terminology is inadequately resolved.

It is evidently possible to pursue a film practice which is not based in photographic 'representation' (recording) but the historical development of the machinery is largely
predicated on this function. The photocinematic recording is clearly a primary level of representation in cinema, though through the practice of editing this level of representation is not its primary narrative means. Literature shows that a narrative representation is possible without the facsimile representation afforded by cinemography — words bear no resemblance to those objects to which they refer. As we have seen it is possible for films which are representational at the level of their images to be non-narrative at the level of their temporal structure. Conversely a film which is non-representational at the level of image may be quite justifiably interpreted as narrative at the level of temporal representation if its structure is readable anthropomorphically.

The resistance to anthropomorphism, which may be seen as a more general expression, and includes within it the resistance to narrative, is similarly a problematic enterprise again raising issues of psychological mechanisms of interpretation and the function of resistance to them. Gidal has pronounced the need to resist and frustrate anthropomorphic interpretation in general; considering the fact that his films are representational in the special sense of photographic recording, this can be interpreted as a tactic to dialecticize what would otherwise be assumed as inevitable (that the human spectator integrates all experience in human terms). Clearly the dominant cinema brings up no problem of this kind, it is anthropomorphic with no resistance at any level — its pictorial representation matching the identificatory desire of the spectator within the narrative — there is no conflict of interpretation, no dialecticization. Whatever the adequacy of theorization of this issue, in one form or another, the opposition to representation in painting, the resistance in music to classical (and because of the physics of the ear it can be argued, natural) harmony, can be seen as a thread of opposition to anthropomorphic interpretation in modern art.

From the positive axis of the fundamentals underlying 'Film as Film', the exploration of the medium in its own terms, the exhibition demonstrates how the earliest approaches to this concept came through the application of the abstract developments in painting to film. I have argued that this early direction, rather than setting the terms for film as an autonomous art practice tended to replace the dominance of literature and theatre over cinematic form by that of painting and music. I have further argued that a more appropriate basis can be found in work which relates to the cinematic aspect of modern cinema rather than its suppression (thus the emphasis given to Léger and Man Ray's first two works and the photographic contribution of Moholy-Nagy). Paradoxically, the concept of appropriateness in film re-introduces issues of representation that in painting it served to resist.

Whilst my general rejection of the abstract film tradition from Fischinger to the American West Coast is primarily based on the dominance of these painterly concepts in film, it does not invalidate the possibility of a cinematic form with no basis in photography. Unless an argument can be made in general against the temporal, aural abstraction — music, then no argument can be made against the possibility of its visual equivalent.

At a more fundamental level, the underlying assumption that a practice would seek autonomy is problematic. This assumption implicit in 'Film as Film', inevitably draws all those arguments which can be brought against modernism. In an historical sense, there is no doubt that tendencies which were at work in other arts are reflected in the attempts to define an art practice intrinsically cinematic. As in painting this process has concerned itself progressively with an exploration based on the materials and properties which can be defined as 'belonging to the medium'. Unfortunately the rhetoric of this enterprise has tended to reflect an essentialism — pure painting, pure film — to encourage tautologies like painting is painting, film is film and to become attached to phenomenalist in a way which assumes a kind of immediate direct response leading to expressions like: 'the work is just itself, an object'. However, this is more an issue of faulty theorization than faulty practice. In effect, the attempt to determine the intrinsics of a medium is always in one sense or another a relativist and historically placed activity. Any assumption that absolute irreducible essences can be uncovered in the enterprise is not borne out by its practice, the very definition of seeming fundamentals is always open to historical re-definition. The possibility that an autonomous film practice can be postulated already rests on certain historical conditions. The technological development of the materials and machinery is a prerequisite, but the form which this technology takes is already enmeshed with historical pre-conditions of its social function and psychological determinants. It is impossible to separate the materials and the practice to which it is attached. It is in this sense that any engagement with the medium becomes a signifying practice within the historical framework. At the same time, if seen in a relativist sense, aesthetic strategies which suppress, in one form or another, current significations make possible manipulations leading to new meaning (so called 'work on the signifier').

Instead of treating the attention to the photocinematic basis of film or any other definable aspects of its machinery or materials in the terms of fundamentals or essences of cinema, they should be considered instead as predominant problems of the medium in its historical placement and signification. The terms in which this issue is theorized is important not only for an understanding of the practice which has taken place, but also as the basis for a critique. The critique affects the developing practice. For example certain concerns on the one hand with the cinematic materials and machinery and with exploration of a variety of non-narrative structures, by becoming critically dissociated from their historical signification, can become simply recuperable formalist exercises. However, a formalist critique of some developments within the 'Film as Film' direction should not be made without consideration of the critical institution within which it is made. It must be in productive rather than destructive terms lest it merely assists the dominance of dominant cinema by weakening the only real cultural alternative.

Though still fragile and largely unrecognized, the cinematic development represented by 'Film as Film' is a substantial history. It has already begun some definition within its own terms, but the didactic necessity in its presentation inhibits this definition as it is veered towards polemics. This tendency of the committed to polemicise is
in its turn counteracted by a tendency of liberal inclusiveness, a classical balancing of viewpoints. The major historical problem for the involved practitioner is the definition of the issues. Without stressing my own formulation of the most demanding current problems, in the course of this brief outline, I have indicated where I think some might be taken up.

So the 'history we need' is more a question of the manner and function of the enterprise than a polemical assertion of its constituents. To function as it should towards the critical development of current practice it needs to begin from a more limited theoretical definition of the problems and be designed as an operation to elucidate them rather than as an exhibition to present a particular construction.

Neither the current institution surrounding cinema nor that related to the presentation of the plastic arts has forms which suit such a concept of presentation.
As the only woman involved in planning the ‘Film as Film’ exhibition Lis Rhodes decided to concentrate on the history of women making films and invited Felicity Sparrow to join her in this research. They focused on the work of Alice Guy, Germaine Dulac and Maya Deren, making personal contact with Ester Carla de Miro in Italy, who has been researching into Germaine Dulac for several years, and Millicent Hodson, Catrina Neiman, Veve Clark and Francine Bailey in America who have been making a comprehensive study of Maya Deren.

In response to requests for more women to be involved in this show Annabel Nicolson was invited to join the exhibition committee, which was responsible for deciding what would be shown and how it would be presented.

During this time the women ‘officially’ involved met regularly with a group of interested women to discuss developments. They felt themselves to be continually undermined by the lack of understanding and respect for their research by the Arts Council’s committee.

For many reasons and with the support of women not officially involved in the ‘Film as Films’ committees they have decided to withhold their research and leave this gallery space empty.

This is our statement:

The gesture of withholding our work and the presentation in its stead of a statement of opposition is the only form of intervention open to us. It was impossible to allow the Arts Council to present our work as if there had been no struggle, as if it had been nurtured in the spirit of public patronage.

Informed by a feminist perspective it was our intention to begin a re-examination of the historised past by introducing (welcoming) Alice Guy and representing Germaine Dulac and Maya Deren.

Maya Deren and Germaine Dulac are both included in the ‘Film as Film’ historical survey but seen only in relation to the articulation of abstract/formal film. We were concerned that these women would be inaccurately ‘defined’ by the concepts that they had been chosen to illustrate and we felt a necessity to re-locate their work within the context of their own concerns, giving it a complexity and fullness that the ‘Film as Film’ exhibition denied by excluding: Dulac’s contribution to the feminist movement; her interviews with women artists expressing their struggle for recognition; her belief in a specifically feminine creativity; her political involvement in the unionisation of film workers and support for the popular front before World War II; Deren’s (embarrassing) involvement with Voodoo; the relationship between her writing and her films; her interest in science, anthropology and religion; her attack on Surrealism.

Alice Guy is not represented in ‘Film as Film’ and has scarcely been recognised anywhere. She was actively involved in film-making at the turn of the century, experimenting with narrative structures and the use of sound with film, but has been forgotten by historians. Why are her films forgotten while those of Lumière and Méliès used as standard texts?

We hoped to carry the historical research up to the present and open up the closed form of ‘Film as Film’ by creating an active space within the exhibition where contemporary women could show personal statements and histories, find their own continuity and share ideas for future shows.

In general: we object to the idea of a closed art exhibition which presents its subject anonymously, defining its truth in Létraset and four foot display panels, denying the space within it to answer back, to add or disagree, denying the ideological implications inherent in the pursuit of an academic dream, the uncomplicated pattern where everything fits.

Specifically: we object to being invited, presumably on the strength of our skills and past work, to participate in the organisation and definition of an exhibition, yet not being left free to characterise our own contributions. We object to the subtle insinuations of intellectual wooliness and inefficiency, as if our perspectives were tolerated rather than considered seriously.

Months ago we made ‘requests’ for more representation by women on the committees, for recognition of our ideas for the exhibition, for a space within the gallery and for the freedom to exhibit our work, to determine what it would include and how it would look. These requests could have become demands. We might have ‘won’ by subversive personal methods or by insisting on a democratic vote. But how does one demand collectivity, support and a real working relationship which includes discussion of ideas and ideological positions, within the framework of meetings structured by an hierarchical institution?

We made the decision not to carry on, not to continue working in a situation that was hostile and ultimately fruitless for the individual women involved. It is better that the historical research be published elsewhere and the work of contemporary women film-makers, artists and critics be presented in a context where they are valued.
Whose History?

Lis Rhodes

Feeling unwilling to write — an inability to manipulate ideas into a theory and facts into a convincing argument, an apprehension at intervening in the hierarchy of film history; an alienation from its underlying thesis of development — I began to reflect.

I stopped writing. I read a sentence written by Gertrude Stein, 'Define what you do by what you see never by what you know because you do not know that this is so.' I knew that 'Film as Film' represented a particular history; 'facts' fragments of film, arranged in sequence; an illustration of a theory; film history re-surfaced, the underlying method unchanged. What was blindly apparent was the lack of women both represented in, and involved with the selection and structuring of, the exhibition.

I began making notes. The first word of every heading I made was 'problem'; the 'problem' of history and historical method; the 'problem' of researching women who apparently don't exist; the 'problem' of whether to present material in an overtly alienating context. Who was to be represented, how and why?

I put these questions to a group of women involved in various aspects of filmmaking and creative practice. It is the thoughts and experiences of this group that lead to this different presentation of history; history made by women about women.

Remembering a few hours that my sister and I had spent, over last Christmas, looking through a drawer full of old photographs and postcards, I began to think about my own history; images, moments of emotion, fragments of an event. A sentence re-heard, the sound of ... the sounds most of all crept back into my mind surrounding the crumpled snapshots. A remembered face, a forgotten figure, my sister and I remember differently. Moments of remembrance for her were nothing to me. Others were shared. We talked and laughed together. Traces of this and that remembered and forgotten centred around a photograph. Is this history? Is it certainly my history, her history, our history.

The present is the centre of focus. The image moves moment by moment. The image is history. The view through the lens may be blurred or defined — focused or unfocused — depending on what you think you know; what you imagine you see; what you learn to look for, what you are told is visible.

There is another history. A history that I have been taught; that I am told I am part of: a reconstruction of events, that I had no part in, causes that I didn't cause and effects that testify to my sense of exclusion. This is the history that defines the present, the pattern that confirms and restricts our position and activities.

History is not an isolated academic concern but the determining factor in making 'sense' — 'nonsense' — of now. Yesterday defines today, today tomorrow. The value placed upon truth, changes viewed from different orientations, different moments flicker with recognition others fade into oblivion.

The reason for this discussion of other histories is not necessarily to prove or disprove the validity of the historical thesis presented by 'Film as Film', but rather to consider its relevance and question its authority. Such authority is implied by the didactic and impersonal approach, and reinforced by the circumstances and context of its presentation; therefore a history not only acceptable to an institution, but fundamentally determined by it. The focuses, permissions, controls, histories are all male orientated. Our problem was not to find an alternative thesis from that of 'formalism' or 'structuralism', or attempt to exclude women's work from this thesis, but to consider our own history. How do women need to look at the work they do, the lives they lead? Can we be satisfied with token representation, a reference here and there in support of a theory of film history, which is not our own?

Problems of history

In a patriarchal class based society a man's position is determined by social and economic factors, but women are further defined as secondary within that class system, the value of their activities and their contributions to that society are considered secondary. This difference in experience, difference in opportunities must produce difference in history; a history of secondary value and largely neglected and unwritten.

Film history defined by men necessarily positions women outside its concerns. Women appear, but on whose terms? Within whose definitions? Apparently historical accuracy is based upon acceptable 'facts', that is those facts that are the concern of men. Unacceptable 'facts' are forgotten or rearranged. If they are remembered, they are contained within the existing fabric. Alice Guy made some 200 films between 1896 and 1907. Why has she been forgotten? Her films attributed to Janet and Feuillard?

At the present time we need to show in a polemical but positive way the destructive and creative aspects of working as women in film, and examine these phenomena as products of our society, and the particular society of film/art. Women filmmakers may or may not have made 'formalist' films, but is the term itself valid as a means of reconstructing history? Is there a commonly accepted and understood approach? Historians cannot avoid value judgments. They select and value certain works. When women are not selected their work plays no further part in film theory, or in historical exhibitions such as this one. A system of theory and criticism uses authorship and uniqueness to create the value of a work; then through publication and exhibition it publicises the authors and perpetuates the values they are said to represent. The construction of 'new' theories or re-valuation still relates to the established authors and their works. The purpose of 'Film as Film' is to establish relations between and attribute influences upon, assign importance to ... etc., both of film to film, and film to other works of art, irrespective of author. This establishes a system of recognition but does not necessarily reflect the ideas or sensibilities of the author. Historians take possession of a film or painting as something to be used or restated. Traditionally scholarship is not concerned with persons but works and it is, therefore, assumed that such discussions/writings are impersonal and unbiased. Any work can be included provided that analysis can reveal such elements of style as the
As a method of reconstructing film history the thesis of ‘Film as Film’ is useful only in so far as it satisfies an apparent need to classify, organise and contain. This imposition of a fixed point of view on film history is dubious and contradicts the idea that films can be evaluated on their own presuppositions and not manipulated to fit those of the historian. If we are to reconsider this method of reconstruction then we must appeal to our own experience, the experience of women filmmakers, not to theoretical generalisations that either exclude our work or force it into an alien impersonal system of explanation.

The history represented here is the illustration of a philosophical ideal, the meshing of moments to prove a theoretical connection. It is as though a line could be drawn between past and present, and pieces of a person’s life and work pegged on it; no exceptions, no change — theory looks nice — the similarity of item to item reassuring — shirt to shirt — shoulder to shoulder — an inflexible chain, each part in place. The pattern is defined. Cut the line and chronology falls in a crumpled heap. I prefer a crumpled heap, history at my feet, not stretched above my head.

‘There is the obvious and enormous difference of experience (between women and men) in the first place; but the essential difference lies in the fact not that men describe battles and women the birth of children, but that each sex described itself’. It is the case, perhaps, that men have described both. If this ‘difference’ is unmistakable then the concept of equality is neither useful nor relevant. Such a concept presupposes ‘sameness’. It disguises ‘difference’. Similarity, not difference, expresses the containment of female within the dominant masculine modes of creativity. Any attempt to express ‘difference’ must cause opposition and therefore appear as the expression of a minority; as is visibly demonstrated in this catalogue and exhibition.

It is neither a question of defining a feminine mode of filmmaking, nor of persuading any woman to a feminist point of view, but simply suggesting that seeing ‘difference’ is more important than accepting ‘sameness’; realising our own histories and understanding their many, possibly divergent, forms. It seemed, therefore, more vital to present a separate approach to history than to argue for an equal part in the selection and presentation of ‘Film as Film’.

The historical approach that surveys works either published or collected must reinforce the society/film system that leads to their publication or protection in the first place. Ideology, therefore, predetermines information and its availability. The source material valued, written about and conserved reflects a male dominated society. Had Alice Guy not written about herself would she be accessible now, as a woman, as a filmmaker?

Women have already realised the need to research and write their own histories; to describe themselves rather than accept descriptions, images and fragments of historical evidence’ of themselves; and to reject a history that perpetuates a mythological female occasionally glimpsed but never heard. Women are researching and conserving their own histories, creating their own sources of information. Perhaps we can change, are changing, must change the history as represented by ‘Film as Film’.

Problems of presentation

The group discussions we had during the autumn of 1978 centred on how to present a history that was our own. We visited film archives and libraries. This was revealing in two ways; first the discovery of a category called ‘women’, pleasant perhaps, as an indication of a demand for information, but distressing in its confirmation of history presumed to be male unless otherwise defined.

Without a particularly detailed search our discoveries were encouraging. We found numerous women engaged in filmmaking prior to 1975. How could we select a few from amongst them?

It was this last question that focused our attention on the problem of who makes history for whom?

This space at the Hayward Gallery should surely be about women making their own history; to show history being re-described, re-thought, re-evaluated. If there are differences in approach to filmmaking between women and men this will become explicit without theoretical pre-determination. The work presented should not be seen as illustrating a particular concept of either feminine or feminist filmmaking. The presentation is as much concerned with the women researchers and their attitudes as it is with the subjects of their research, women looking at their own history.

We were still faced with the problem: was there any sense in trying to intervene in the context of ‘Film as Film’? Would any representation of women’s work be seen as merely token in a predominantly masculine exhibition, a ghetto in a male environment? However, had no intervention been made then the ‘Film as Film’ exhibition would publicly confirm the apparent lack of women filmmakers and the authority of a particular history.

Even if the presentation was to be token in dimension and context, it could provide a public space for information and discussion, not only of what women have done, but how we understand ourselves and our history. Hopefully, it may encourage women who are engaged in research, writing or filmmaking to discuss and describe their histories, in our own ways, on our own terms. A different history.

The Artist As God in Haiti

by Maya Deren

Tiger’s Eye 6, December, 1948

In the fall of 1947 I went to Haiti to film Voudoun rituals for inclusion in my film-in-progress which is concerned with the forms of ritualistic discipline. I felt that those who had circulated sensational accounts of ‘a wild voodoo’ had simply failed to recognize as form a form which differed from those to which they were accustomed. I wished to perceive their religious system in terms of its meaning for those whom it had so long served as a moral discipline and an intellectual structure. The account which follows is based on diary notes concerning my first contact with Voudoun.

Sunday, September 28, 1947

I do not know whether I shall manage to set it all down on paper. The mood is strange. I am both tense and exhausted, balanced on a razor’s edge between sleep and violent action and the tension between them so utterly consumes my energy that a kind of balance of paralysis is achieved. I neither sleep nor move. I say to myself: you must write down everything now, today, before it is forgotten or becomes unreal. Yet so much would I rather dream on it that to arrange sentences, to formulate precautions, seems an impossible effort of the will. My mind flows like a thick, slow-moving liquid in and out of all the crevices of last night. How can I ever record all the sounds, smells, movements, relationships, memories, desires, and those flashes of ‘seeing’ in that ancient sense — that totality of any moment which completely involves one and thus involves all history.

How reluctant my mind is to face its task! How it loiters about the edges and finds, suddenly, urgent interest in some tangential preoccupation. There are times when one must lash and leash it and lead it, as one would a reluctant beast, grasping first at one firm real object, and then another until there is no other way for it to go and one mounts the beast and rides it, perhaps fearfully.

Yesterday evening S. came to have a drink with me at the hotel. He is very nice, but, as does C., he imagines that progress (with which these city Haitians are so obsessed) consists in an increasing intellectualization. This, aggravated by his anxiety to please, made for what was almost a parody of an intellectual conversation. It was incredible to sit there on the verandah, politely passing back and forth the proper ideas, while, in the distance, the sound of drums, growing with the dusk as if this luminous blackness which is the Haitian night was indeed its color, vibrated like the murmur of blood in the pulse of a body which was living through something.

It is not morbidity which draws crowds to scenes of disaster or unusual joy. It is the desire to participate in a moment when life breaks through to some higher level of intensity so that one’s life might take fire from that sudden spurted flame. A great heart pounds as if the body could not catch its breath in the hills above us. The cullets, the rice and beans, are meaningless. Abruptly I announce that I am off to hunt down the drums. C. and S. may accompany

The material by Maya Deren was given by Carina Neiman, Francine Bailey, Millicent Hodson and Veve Clark, who are collectively working on ‘The Legend of Maya Deren’ a documentary biography to be published in three volumes for Film Culture.
me if they would like. Partly they are themselves curious, having caught fire from my urgent interest. Partly they imagine their role protective.

We cross the great park, full of girls in fluttery summer dresses, the men all in white, and start up a street which soon is no longer paved. The direction of the drums seems suddenly to reverse itself and we feel lost until we realize that it is the echo, bouncing off a tall wall which we are passing, that makes it seem so. This is the first mischief, and the sound seems to gradually begin a deliberate game of confoundment. It fades and grows for no reason at all. Often we imagine the drums just around the next crossways, and then, suddenly, hopelessly distant in the hills. The steep, rutted paths are almost deserted. We pass the roofless shell of a house — either the remains after a fire or an abandoned effort at construction — its doors and windows leading from nowhere to nowhere and the moon, shining inside on the grass of the rectangle that was to have been the floor, is like a triumph over it altogether.

And then, suddenly, the voices, singing with the drums, come through and we know we are nearer. The pursuit creates its own compulsion and we accelerate. We begin to ask our way and a man who says he is going himself, undertakes to lead us. We pass through a narrow alley between two houses and around the corner of another and, suddenly, there it is, a kind of patio with a roof, and a fence-like construction around its four sides, and a pole up the center, the three drummers at one end, the oil lamp hanging from a rafter. It is the peristyle of the hounfor.

In the center there are girls and some men dancing and they sing as they dance and suddenly it is clear singing and dancing are not separate forms of expression. They dance as if they were marionettes tied to the drums by invisible strings of sound. They are not dancing with one another, nor are they dancing to the drums, nor do the drums accompany them. Their movements are sound made visible and their voices are, in turn, the transfiguration of their movements back into human sound. Or is it that the drums emanate a vibration which plays on all that it touches, the muscles of the body, the chords of the throat, the trees beyond the peristyle, the sensitive fibres of a mind in the hotel — fingers of sound jangling all that is tuned tight for them.

I would linger on the outskirts of this peristyle, standing with the other watchers in the shadows. I would circle timidly about its edges in a gently decreasing spiral of precious desire as the child, new come to the neighborhood, insinuates itself delicately into the group. I sense that this slow embrace is right. It is a little crowded here on the edges and all bodies brush casually by each other. A shoulder rubs by mine. Someone else presses by. I feel that if I stayed so, the strangeness would be rubbed from me, that my body would be moulded into the shape of this reality as the sea grinds the new fallen stone gradually into the form of its movements.

But it is not possible. S., feeling that I should be above to "observe" everything, has gone forward and now returns to fetch me forward, also, to where some chairs have been placed for us right almost in the center, directly near the drums, where the 'action' may be going on. The light is bright here and I feel conspicuous. I am isolated on my chair. The contact which I had is lost and I can only look, now.

I notice, emerging from the house to which this patio like arrangement is attached, a very tall, thin man. There is a fragility in his movement which is curious, particularly in the manner in which he sets his feet down in their worn leather scuffs — as if they were delicate, even precious. As he achieves the lighted center spot in front of the drums he begins singing, not loudly, and shaking a small gourd around which a mesh of brightly colored beads has been woven. Attached to it is a small silver bell and now the clacking of the beads and the ringing of the bell seem to infuse the dancers with a new life. He looks finally in our direction and nods to us in greeting and the dignity of his salutation makes us feel honored. "Who is that man?" S. asks of a bystander. "It is the priest, the houngan," I answer, and he who was to have answered looks at me with a surprise which melts into a smile of comradely conspiracy with me against those who do not know, who cannot recognize." Houngan Champagne," the man says, and I smile and nod with an old knowledge, newly discovered. It is the first of these knowledges which are direct between me and the thing, having no source in information.

It was somewhere in my legs that the muscles first understood that fragility and conveyed to my heart and mind the shock of knowledge. He had carried himself as one might carry a precious vessel filled to overflowing with a potent magic potion which must not be spilled nor wasted until the moment of sacred use, when all is ready to receive it. So I have carried myself carrying it, gently, floating almost, careful against jarrings, protective against jostlings, and the tensions of caution becoming almost unbearable until that moment, when, finally, all else was ready and fitting.

S. is talking in my ear. He is 'analyzing' the scene. I am trying to experience it. His analysis interrupts and obstructs my experience of it. I try to make myself deaf to him, and I wish desperately that he would stop talking. I feel that the people do not like to be talked about. I pretend not to hear him and I smile at them instead to indicate there is a difference between S. and me, and that I am on their side against him. They smile back. The lamp goes out in a gust of wind. There is, for a moment, only the moonlight shooting in sideways into the peristyle. The lamp is relit. It blows out again and is again relit.

The drums have ceased, and now again they have recommenced. I will not go back to sit with S. How shall I say to these people that I am not an outsider, that I, too, am of the race of those whose bodies are ravaged by invisibles, by Gods, who are ideas too large for the human frame? That I, too, with the other artists, have known such agony, such loss of balance, such sense of the skin bursting with not being able to contain something more than human. And to whom could we cling until the last tremor had ceased and we were returned to ourselves again?

Even if I could speak their language I could not say this. Let me at least dance with them. I move shyly and inconspicuously to the shadowed outskirts of the dancing and begin some timid movements. I am glad, glad that I have always been able to dance. It seems to go well, and they are pleased that I am able to do their movements. They dance towards me and smile and imperceptibly, a path opens towards the center. I am timid to go forward, but I sense at the same time, that this timidity might be understood as a shame of being seen. That I can dance is a
A Statement of Principles

Maya Deren

My films are for everyone.

I include myself, for I believe that I am a part of, not apart from humanity; that nothing I may feel, think, perceive, experience, despise, desire, or despair of is really unknowable to any other man.

I speak of man as a principle, not in the singular nor in the plural.

I reject the accountant mentality which would dismember such a complete miracle in order to apply to it the simple arithmetic of statistics — which would reduce this principle to parts, to power pluralities and status singularities, as if man were an animal or a machine whose meaning was either a function of his size and number — or as if he were a collector's item prized for its singular rarity.

I reject also that inversion of democracy which is detachment, that detachment which is expressed in the formula of equal but separate opinions — the vicious snobbery which tolerates and even welcomes the distinctions and divisions of differences, the superficial equality which stalemates and arrests the discovery and development of unity.

I believe that, in every man, there is an area which speaks and hears in the poetic idiom... something in him which can still sing in the desert when the throat is almost too dry for speaking.

To insist on this capacity in all men, to address my films to this — that, to me, is the true democracy... I feel that no man has a right to deny this in himself; nor any other man to accept such self debasement in another, under this guise of democratic privilege.

My films might be called metaphysical, referring to their thematic content. It has required millennia of torturous evolution for nature to produce the intricate miracle which is man's mind. It is this which distinguishes him from all other living creatures, for he not only reacts to matter but can meditate upon its meaning. This metaphysical action of the mind has as much reality and importance as the material and physical activities of his body. My films are concerned with meanings — ideas and concepts — not with matter.

My films might be called poetic, referring to the attitude towards these meanings. If philosophy is concerned with understanding the meaning of reality, then poetry — and art in general — is a celebration, a singing of values and meanings. I refer also to the structure of the films — a logic of ideas and qualities, rather than of causes and events.

My films might be called choreographic, referring to the design and stylization of movement which confers ritual dimension upon functional motion — just as simple speech is made into song when affirmation of intensification on a higher level is intended.

My films might be called experimental, referring to the use of the medium itself. In these films, the camera is not an observant, recording eye in the customary fashion. The full dynamics and expressive potentials of the total medium are ardentely dedicated to creating the most accurate metaphor for the meaning.

In setting out to communicate principles, rather than to relay particulars, and in creating a metaphor which is true to the idea rather than to the history of experience of any one of several individuals, I am addressing myself not to any particular group but to a special area and definite faculty in every or any man — to that part of him which creates myths, invents divinities, and ponders, for no practical purpose whatsoever, on the nature of things.

But man has many aspects — he is a many-faceted being — not a monotonous one-dimensional creature. He
has many possibilities, many truths. The question is not, or should not be, whether he is tough or tender, and the question is only which truth is important at any given time. This afternoon, in the supermarket, the important truth was the practical one; in the subway the important truth was, perhaps, toughness; while later, with the children, it was tenderness.

Tonight the important truth is the poetic one.

This is an area in which few men spend much time and in which no man can spend all of his time. But it is this, which is the area of art, which makes us human and without which we are, at best, intelligent beasts.

I am not greedy. I do not seek to possess the major portion of your days.

I am content if, on those rare occasions whose truth can be stated only by poetry, you will, perhaps, recall an image, even only the aura of my films.

And what more could I possibly ask, as an artist, than that your most precious visions, however rare, assume, sometimes, the forms of my images.

Woman’s Place in Photoplay Production

Alice Guy Blaché

It has long been a source of wonder to me that many women have not seized upon the wonderful opportunities offered to them by the motion picture art to make their way to fame and fortune as producers of photodramas. Of all the arts there is probably none in which they can make such splendid use of the talents so much more natural to a woman than to a man and so necessary to its perfection.

There is no doubt in my mind that a woman’s success in many lines of endeavour is still made very difficult by a strong prejudice against one of her sex doing work that has been done only by men for hundreds of years. Of course this prejudice is fast disappearing and there are many vocations in which it has not been present for a long time. In the arts of acting, painting, music and literature woman has long held her place among the most successful workers, and when it is considered how vitally all of these arts enter into the production of motion pictures one wonders why the names of scores of women are not found among the successful creators of photodrama offerings.

Not only is a woman as well fitted to stage a photodrama as a man, but in many ways she has a distinct advantage over him because of her very nature and because much of the knowledge called for in the telling of the story and the creation of the stage setting is absolutely within her province as a member of the gentler sex. She is an authority on the emotions. For centuries she has given them full play while man has carefully trained himself to control them. She has developed her finer feelings for generations, while being protected from the world by her male companions, and she is naturally religious. In matters of the heart her superiority is acknowledged, and her deep insight and sensitiveness in the affairs of cupids give her a wonderful advantage in developing the thread of love which plays such an all important part in almost every story that is prepared for the screen. All of the distinctive qualities which she possesses come into direct play during the guiding of the actors in making their character drawings and interpreting the different emotions called for by the story. For to think and to feel the situation demanded by the play is the secret of successful acting, and sensitiveness to those thoughts and feelings is absolutely essential to the success of a stage director.

The qualities of patience and gentleness possessed to such a high degree by womankind are also of inestimable value in the staging of a photodrama. Artistic temperament is a thing to be reckoned with while directing an actor, in spite of the treatment of the subject in the comic papers, and a gentle, soft-voiced director is much more conducive to good work on the part of the performer than the over- stern, noisy tyrant of the studio.

Not a small part of the motion picture director’s work, in addition to the preparation of the story for pictur- telling and casting and directing of the actors, is the choice of suitable locations for the staging of the exterior scenes and the supervising of the studio settings, props, costumes, etc. In these matters it seems to me that a woman is especially well qualified to obtain the very best results, for she is dealing with subjects that are almost a second nature to her. She takes the measure of every person, every costume, every house and every piece of furniture that her eye comes into contact with, and the beauty of a stretch of landscape or a single flower impresses her immediately. All of these things are of the greatest value to the creator of a photodrama and the knowledge of them must be extensive and exact. A woman’s magic touch is immediately recognised in a real home. Is it not just as recognisable in the home of the characters of a photoplay?

That women make the theatre possible from the box- office standpoint is an acknowledged fact. Theatre man- agers know that their appeal must be to the woman if they would succeed, and all of their efforts are naturally in that
direction. This being the case, what a rare opportunity is offered to women to use that inborn knowledge of just what does appeal to them to produce photodramas that will contain that inexplicable something which is necessary to the success of every stage or screen production.

There is nothing connected with the staging of a motion picture that a woman cannot do as easily as a man, and there is no reason why she cannot completely master every technicality of the art. The technique of the drama has been mastered by so many women that it is considered as much her field as a man's and its adaptation to picture work in no way removes it from her sphere. The technique of motion picture photography like the technique of the drama is fitted to a woman's activities.

It is hard for me to imagine how I could have obtained my knowledge of photography, for instance, without the months of study spent in the laboratory of the Gaumont Company, in Paris, at a time when motion picture photography was in the experimental stage, and carefully continued since in my own laboratory in the Solax Studios in this country. It is also necessary to study stage direction by actual participation in the work in addition to burning the midnight oil in your library, but both are as suitable, as fascinating and as remunerative to a woman as to a man.

From the Moving Picture World, July 11, 1914.

**Report by Alice Guy to Léon Gaumont**

(This article, which was requested by M. Léon Gaumont for a proposed publication, was begun in 1907 and corrected by M. Gaumont himself in 1945, a year before his death.)

In 1895, while I was a secretary at the Comptoir Général de Photographie, Demény came to offer his camera for animated photographs, 'Le Bioscope'. Gaumont accepted it and began a whole series of technical studies and laboratory tests, etc. . . . at a time when film-making, such as one thinks of it today, hadn't as yet come into being. The presentation by the Lumière brothers of their camera at the Société d'Encouragement à L'Industrie Nationale, opened up a new horizon.

The Demény camera underwent a series of transformations and by the end of 1896 the 'chronophotographe' was born. This was a reversible camera which made it possible to photograph and project animated pictures of 15 to 20 metres in length, 60mm wide. At that time Gaumont possessed a workshop well set up for making cameras but nothing was specially designated for film production. M. Gaumont had acquired premises at 10 rue des Alouettes by the entrance of l'impasse des Sonnieres; a laboratory for printing and developing films was established there and the personnel took shots of children playing, coming out of school, a military parade, etc. . . . These films were hand developed like ordinary photographic film in a large vertical tank. They were wound on to wooden frames and dried on a small drum.

At this time I begged and finally got permission from M. Gaumont to direct some little sketches written by myself and played by amateur actors. At the bottom of the impasse des Sonnieres there was a paved garden, several metres across, enclosed by a high wall. It is this garden that saw the birth of one of the first of a series of silent films, whose illustrious career was to last 30 years.

The first film I made in this garden was La Fée aux Choux (The Cabbage Fairy). The backdrop, which had been painted by a local painter on an ordinary sheet and hung against the wall as best we could, rippled each time the wind blew, and the cabbages were all cut out of cardboard. For lighting we had the sun which meant waiting for favourable conditions. The camera, placed on a simple photographic tripod planted in a heap of earth, lacked stability; focusing took place under a black cloth and the cranking was done by hand. The first cameraman was Anatole Thiberville, who had been, I think, a stock farmer in Bresse. Nevertheless, it was in this little garden with this modest equipment that we discovered, bit by bit, the thousands of possibilities opened up by this marvellous invention which is now the Cinema.

The width of film was standardised and Gaumont perfected a camera using films of 35mm. While the engineers under M. Gaumont struggled to perfect the cameras, we made progress with our discoveries. Advised by artists, by masters of photography such as Frédéric Dillaye for example, we introduced into cinema the use of superimpositions, enabling us to obtain ghost-like apparitions which left the public gasping with astonishment. By stopping the filming, an object could be removed and seem to disappear as if by magic, only to reappear in a different place. Reverse filming enabled us to show a greedy customer who, worried by his bill, puts his eaten cakes back intact; the house demolished by a malevolent fairy could reconstruct itself, etc. . . . We also used different focal lengths which allowed us to take, in the same image, people of different sizes. This was How I made Le Cakewalk de la Pendule, which was one of the first, if not the first, of the genre and was exploited by all the rival firms. Slowed down shooting gave rise to unforeseen comic effects on projection. All these details, which nowadays seem so elementary, so negligible, nonetheless gave life and an extraordinary dynamism to this art which is so appreciated today.

Present-day film directors can have no idea of the difficulties and set-backs we had to overcome to achieve these films: it only needed a careless cameraman failing to brush the velvet, which at that time lined the camera body, and the whole length of film might be scratched; an inattentive developer forgetting to agitate the developing bath and a whole reel could be partially stripped with dark patches and even air bubbles formed riddling the negative with holes; a too-hot bath would make the emulsion melt, sometimes this would peel away like a layer of an onion; destroying the results of all our efforts. Also one still had to contend with the instability of the camerastand, light leakages in the magazines, uneveness of light; the film emulsion, much less sensitive than it is today, only registered a feeble part of the spectrum and gave harshly contrasted images in black and white, etc. . . .

I was at the same time scriptwriter, director, producer, and in charge of the wardrobe. We had complete confidence in the future of this new born art, we were passionately enthusiastic, like explorers of a new world. It
was in this little garden and with these modest means that I made Le Cakewalk de la Pendule, Une Facture Désagréable, La Liqueur au Couvent, Faust and Mephisto, L'Assassinat du Courrier de Lyon, Le Petit Coupeur de Bois, etc.

Often I took my actors from the personnel of the workshops. Zecca who made his debut as a director at the Gaumont House (and which he left after a stay of only a few weeks) made there Les Mefais d'une Tete de Veau, a film in the genre of those by Méliès.

It was there also that the first 'chronophone' films were born, forerunners of talking pictures; these were a combination of the 'chronophotograph' and the phonograph. Engineers recorded the sound on wax cylinders, while I took charge of directing the picture. We even made colour films painstakingly, if not skilfully, hand-painted. And, considering the magnification of the slightest fault when it comes to projecting, it was quite a show to achieve even fair results. To this effect I specially directed Le Fée Printemps, Le Fumeur d'Opium and others.

But the business rapidly expanded. The mother-garden was deemed insufficient and the first studio was built. It was considered necessary to build a proper theatre with proscenium and flies, movable catwalks, raked stage, three levels underneath, curtains, trap... Until then I had been in sole charge of direction; I was given a production manager, Denizot, who made several films himself. A workshop for décor and sets was created under the direction of Henri Mennesser, a talented set designer. Electric lighting was installed, consisting of two large trolleys, each one carrying twelve 60 amp arc lamps which gave us a lot of bother. We had no flexibility, neither ceiling light, nor spotlights and we still had to rely on the sun a great deal. It was always one extreme or another under that immense glass cage: dog-days or glacial cold.

This was the time of popular 'slapstick comedies' and with the assistance of an excellent troupe of actors, Les O'Mers, I made a number of successful films such as Le Mariée du Lac St Forgeau, Le Pantalon Coupé, Les Gendarmes, etc... We also had to put up with passers by and the police in order to shoot our exteriors. We didn't have imposing cars at our disposal and we weren't followed by a large entourage. The uninitiated public, whose curiosity was rife, gathered round us sometimes making our work impossible and then the police would turn up with their 'move along, move along' orders just to add to our difficulties.

The quality of films rapidly got better and they grew to a respectable length. The sets were more sophisticated, and the camera had a solid stand with a panoramic platform. I employed professional actors and we made a number of films outside, in live settings. The proper scenario came into being. We began to write our own scripts, either originals or inspired by well-known plays and books. Eventually I had talented directors to assist me, one of whom, Feuillade, is still remembered to this day. His films were the forerunners of the ciné-roman and the serial film. Also Arnaud, who specialised in the adaptation of plays such as C'est Papa qui prend la Purge.

At the exhibition in 1900 our films were well received. On the wagon-lits stand one could see scenes from the Transiberian Express crossing the Russian steppes taken from the moving train (first documentary). Our newsreel films were projected in a special room. The House was awarded a gold medal and I myself was presented with a diploma of collaboration; it was the same at Milan, at St Louis in 1904 where the Gaumont House was placed hors concours and I was awarded the gold medal, etc...

We had already built up a large repertory of films. Gaumont now had branches in London, Berlin, Barcelona and a distribution department was in full operation. The initial hardships began to be smoothed out. The camera was perfected giving more stable images. Once a week I had a meeting in my office with the directors to discuss the next films; these were presented for the approval of M. Gaumont.

One of the technicians, Santou, invented the first automatic developing equipment which eliminated most of the shortcomings of hand developing. It was possible to tackle more interesting subjects; thus I was able to make Volée par les Bohemiens, La Famille, La Vie du Christ, etc... Gaumont expanded and neighbouring land was bought. Model workshops for printing and developing were built, equipped with a unique installation for fire-protection, because handling of filmstock gave rise to serious dangers. Hand-tinting was replaced by mechanical colouring achieved with the aid of three films cut out and used as stencils. We realised the need for publicity and a poster studio was organised. The design and carpentry studios were enlarged, the backdrops having long been replaced by built-in sets.

Finally M. Gaumont opened the first giant cinema, the Gaumont Palace. The House employed over 800 staff; we had come a long way from the time when our first customers, full of mistrust, went behind the curtain which was used as a screen to see that there weren't any hoaxes going on. The branches too began to produce films.

It's difficult to give in this short report a proper idea of the dynamism of the young company at this period. I believe that when I left, in 1907, all the progress accomplished since had already begun. Feuillade replaced me as head of the department. Unfortunately 1914 slowed down this great impetus, otherwise France would have been at the forefront of world production. The Gaumont Company continued to keep abreast of the most important cinematographic companies until old age forced M. L. Gaumont to retire from business.

Translated by Felicity Sparrow

From Auobiographie d'une pionnière du cinéma (1873-1968) Denoël/Gonthier, Paris 1976
Germaine who?

Excerpts from an unpublished article by Ester Carla de Miro

The title, which paraphrases that of Michèle Rosier’s film on George Sand, indicates an attempt to give a fuller and more accurate picture of Germaine Dulac than standard film histories, which mention her as a theoretician, collaborator of Delluc and Artaud and as a director of ‘abstract’ films.

Any examination of her many-sided career must begin with her writings for *La Française*, one of the first feminist magazines, founded in 1906, for which Dulac regularly interviewed women artists, actresses, poets, etc. living in or visiting Paris, the centre of culture and emancipation of the time. The descriptions of her subjects were already highly visual including details of appearance and dress, but she also represented them as pioneers in women’s struggle for recognition in what was very much a man’s world. The example of these women seems to have inspired her subsequent films, which usually dealt with aspects of the feminine condition.

*La Française*, took a particular approach towards the ideology of the feminist position, it was aimed at improving women’s lot in society rather than overthrowing the male regime. Contributors to the magazine, most of them from well-to-do families, ‘protested’ only discreetly as their 19th-century inheritance of male supremacy was still strong. Dulac, however, had a more positive approach, exalting feminine attributes, as she did later also in her films. Her articles describe the creativity communicated to her by the women she interviewed and her feminism was often expressed in terms of her belief in a specifically feminine artistic gift. Her musical education perhaps made her value artistic creation most highly and, after becoming a director, she pursued the ideal of creativity firmly linked to her notion of female emancipation. Music may also have contributed to her tendency to approach the description of the feminine personality as if it were a ‘theme’ on which she executed ‘variations’ derived from intense communion with her subject. She acted as a ‘sounding board’ for their emotions, expanding on the reality. Thus too her later films, however abstract they might appear, were firmly based in reality, either in signification or in a concrete ‘photographic’ quality.

In general, her articles show an indisputable interest in feminist problems and the inevitable obstacles for women in every profession, as well as a passion for expressing the personality of her subjects, interior as well as exterior. Her marked ability at observation was nearly always voiced in a visual evocation of her films. Similarities in her approach to writing and film may be seen in the following quotes from her interviews: On Carlotta Zambelli, an Italian ballerina ‘Graceful, refined, of an almost intangible lightness, from the moment she steps on the stage the public is hushed. One follows the wild arabesques, points, and bold gestures with the same emotion one awaits favourite passages in a beloved opera’. These few lines seem to anticipate a short experimental film Dulac was to make 20 years later, in which the pirouettes of a dancer alternated with shots of moving machinery, *Essais Cinématographiques sur un Arabesque*.

On Marguerite Dutermie, comic playwright, who shares certain characteristics with Dulac’s protagonist in *Ame d’Artiste*: ‘... behind the smiling eyes and warm welcome one senses a strong will, a jealously private nature. Tall, willowy, very reserved in dress and manner, she emanates youthful charm as well as a valiant spirit in full command of itself. Sharp, almost playful, but always ready for a more serious conversation, she is without pedantry, being too intelligent not to be simple, and is full of original ideas based in a solid philosophy born more from her reasoned observation of life than from scholarly theorizing’.

On Jean Bérigey, scriptwriter and historian ‘... Dressed in light floating white, her beautiful dark head, strong, with its cameo-like profile. Her magnetic eyes, intelligent and alive have an infinite sweetness. Her speech and gestures are simple, enchanting, evoking antiquity, her books rich in anecdote. Sforzis demonstrates her noble and poetic preoccupation with the struggle between sensual and pure love... ‘The muses are my sisters’ she says’.

The feminism of Dulac, rather than negating femininity, exalts it and finds it in art the ideal vehicle for the full realization of the sensitivity and poetry of the female spirit. She sought to reconcile the two female stereotypes, the sublime woman of romanticism and the active woman seeking self-affirmation at the beginning of the industrial age. This quest characterizes both her written and directional work, as is clear from her first film *Soeurs ennemies* 1915, which her contemporary and friend Henri Fescourt described as giving ‘... the impression of a subtle linking of two epochs, the one now fading... and the dynamism of the future...’.

A striking aspect of Dulac’s journalism was the breadth of her approach. She was interested in her subjects’ whole way of being, their activity, physical appearance, attitudes, ambience and also in emotions they evoked in her. Her films continue this direction in what she defined as ‘the art of spiritual nuances’ (spiritual not in its metaphysical use, but in the sense of rapport, ‘transference’ between persons and objects).
Louis Delluc described her early films as 'Less grandiose than Gance, but no less cerebral and slightly more humane. She has a perfect sense of intimacy, interior harmony, of the profound truth of life. An artist of the first order . . . in her natural observation of things, people and events, Duluc depicts daily reality without being dominated by it'.

Though history depicts Delluc almost as Duluc's mentor it was in fact through her that he became involved in film, first as a critic and then as a director. Considering the general hostility to women directors, it is interesting to note Delluc's reactions: 'Mme. Duluc has vigorously affirmed her personality with three films of which the first is worth more than a dozen of each of her colleagues. . . But the cinema is full of people . . . who cannot forgive her for being an educated woman . . . or for being a woman at all.'

Duluc described her own work in a 1922 interview '. . . my strength was to describe interior movements of the spirit . . . beyond acts . . . My vision is this: to be simple, true, mobile in the immobility of things and in the apparent calm of the spirit . . .'

In directing films, Duluc actively promoted the cause of 'pure' cinema, giving lectures at the Club Amis du Septième Art and the Conseil National des Femmes Françaises (of which she was president of the film section) as well as all over Europe. She was also instrumental in founding film societies in France and bringing in films from abroad. Duluc started a review dealing with aesthetic problems in film, Schemas, which survived only one issue. Active in cinema workers' unionization she had a constant battle to get work, what money she made 'commercially' she invested in her own films, for which it was difficult to find producers. This was the case for her last three works classified by historians as abstract shorts but really 'pure' cinema, using iconic language to transmit sensations, as music does.

After 1930, with the advent of sound, the new film 'industry' crushed the art of silent avant-garde film-makers like Duluc. The mechanics of sound film were too clumsy for experimentation and cinema took a step backwards.

Duluc became a news director for Gaumont and taught film at the Ecole Vaugirard, where she was friendly with Hans Richter. Devoted to the popular front, in 1936 she made an anti-war documentary Les Marchands de Canons. One of the founders of the Cinémathèque Française, she assembled Gaumont news footage for a documentary Le Cinéma au service de l'Histoire.

Duluc died in 1942 during the German occupation but was only to be commemorated in 1945. Her friend and assistant, Marie Anne Malleville was not able to save many of her films from destruction.

At this distance she seems a remarkable woman, who lived for her own work, her own creativity, despite having had to compromise (and times were much more difficult than for today's feminists). But most important was her idea of the cinema, too often misunderstood and confused with that of others, as a new means of conveying the most refined and diverse sensations. It was Duluc who understood that cinema is a physical as well as intellectual experience and the pure sensual delight of her vision is not yet sufficiently known and appreciated.

Translation and synopsis by Lucinda Hawkins.

Ester Carla de Miro is currently researching and writing the biography of Germaine Duluc.

'Du Sentiment à la Ligne'

Germaine Duluc

When the idea of abstract cinema, which is expressed by the visual rendering of pure movement beyond the existing aesthetics, is presented to the greater part of the public and even to many intellectuals and professional filmmakers, it is received with scepticism, if not open hostility; it is allowed to evolve provided that in its striving for perfection this new art movement does not break with the formal framework of tradition.

But suddenly from various points of the globe dedicated filmmakers, without knowing or having any contact with each other, isolated in the silence of their thoughts and intuitions while following the same line of research, have converged at the same frontier. Utopia! will cry the host of those whose judgements stop short at the exact limits of well established structures. True! will reply the theorists who see everything as but an ephemeral stage of transformation. That one brain could come up with a new concept — a dream, perhaps, but the seed of progress. But when several minds conceive a nucleus is created and, with that, a reality.

Abstract or 'integral' cinema should not therefore be derided or held suspect since within the constructive energy of some and in its already significant appeal to a few others, it exists by virtue of that very fact. Conceived, wished for and already concretely formulated in several works, it has progressed from the limbo of nebulous theories into the material domain of expression. Embryonic certainly — but tangible nevertheless, by the impulse which animates all living principles it will impose itself automatically and will take its place, this branchial of a collective instinct.

The views of these few may not be immediately assessed but should be recognised as an embryonic truth, an ideal anticipated for the future.

I don't mean to say that 'integral cinema', whose expression is composed of visual rhythms materialising in forms refined of all literal meaning, should be the 'only cinema' but merely that 'integral cinema' is the very essence of cinema considered in its general sense, its inner reason for being, its direct manifestation, seen as independent of the dialectics and plasticity of the other arts.

It was through a slow evolution, based on experience, that I first arrived at the idea of a visual symphony and then to a stronger and more synthetic conception of 'integral cinema', music of the eye.

Like others I used to consider that creations for the screen should be drawn from the development of an action, a feeling — through reflections drawn directly or reconstructed from real life — of one or many human faces and their emotive qualities issuing from the selective juxtaposition of animated images whose intrinsic and successive mobility led to more of an intellectual than physical result.

Movement, considered in itself and for itself, in its dynamic force and its different measured rhythms, did not seem to me at that time to be the ultimate meaning of being presented on its own.

But soon it seemed to me that the expressive value of a face was contained less in the general aspect of the features themselves than in the mathematical duration of their reactions; in other words, if a muscle is tensed or contorted under the influence of shock, the real significance lies in the long or short measure of the effected movement.
Since a contracted or relaxed movement of one of these muscles can evoke abstract thought without needing to move the whole face, wouldn't the visual drama depend on the nature of the movement? A hand placed on another hand. Movement. Dramatic line analogous to a geometric line connecting one point to another. Action. But, should this hand realise its gesture quickly or slowly, the rhythm gives the movement its inner meaning. Fear, doubt, spontaneity, firmness, love, hate. Diverse rhythms in a same movement. Let us consider cinematically the various stages of germination of a grain of wheat buried in the earth. On the same theme we have a view of pure movement which unfolds according to the continuous logic of its dynamic force and whose rhythms, inspired by the difficulties of integral development, will blend their conscious and suggestive theme with the material theme.

The grain swells, thrusts aside the earth particles. In the air and below ground it traces its path. Here its roots grow longer, branch out, clinging tenuously; there the stalk rises hungry for air and light in an instinctive yearning. The upright stem is reaching for the sun, it reaches wildly towards it, the roots establish themselves, the ear of corn reaches maturity. The movement changes course. The vertical period is over. It is now the flowering of movements in other directions. If an outside influence hinders this happy blossoming or if the stalk deprived of sun looks in vain for its warm and life-giving source, the anguish of the plant is transmitted by the counter rhythms which change the significance of the movement. Roots and stem create harmonies. The movement and its rhythms, already refined in their form, determine the emotion, the purely visual emotion.

Flowers or leaves. Growth, fullness of life, death. Anxieties, joy, sorrow. Flowers and leaves disappear. The spirit of the movement and the rhythm, only, remain.

When a muscle plays on a face or a hand is placed on another hand, when a plant grows attracted by the sun, or crystals multiply, or when an animal cell evolves, we find at the source of these mechanical manifestations of movement a perceptible and suggestive impulse, the energy of life which the rhythm expresses and communicates. Whence emotion.

From plants, minerals, right through to volumes, to less precise forms, to integral cinema, is but a short step because only movement and its rhythms create feelings and sensations. When a circle turns, spirals through space and disappears as though thrown beyond our range of vision by the force and strength of its movement, we create a sensitive impression if the rhythms of speed are co-ordinated by a clearly defined inspiration.

The concept of emotion is not exclusively confined to the evocation of precise actions, but to every manifestation which takes place in both its physical and moral life.

If cinema is used to relate stories, to glorify events and to invent others, to better please the public, I do not believe it would be fulfilling its aim. Cinema captures movement. Certainly a human being travelling from one point to another is movement, as is the projection of this same being in time and space and also his intellectual development. But already the blossoming of a grain of corn seems to us to be a more perfect, more precise cinematic conception, giving greater significance to the mechanical movement of logical transformation, creating by its unique vision a new drama of the mind and senses.

Followers of 'integral' cinema are treated as Utopians. Why? For myself, I'm not arguing the need for emotive values in the concept of a work. The creative will should reach the public's understanding through the conscious theme which unites them. But what I oppose is the narrow interpretation which is generally made of movement. Movement is not merely a shifting in time and space but also and above all evolution and transformation. So, why ban it from the screen in its purest form which, perhaps better than others, contains within itself the secret of a new art form.

Lines, volumes, surfaces, light, depicted in their constant metamorphosis are, like the plant that grows, relevant to us if we know how to organise them in a way corresponding to our needs and imagination; Because movement and rhythm remain, even in a more material and significant embodiment, the unique and intimate essence of cinematic expression.

I'm conjuring up a dancer! A woman? No. A line leading about to harmonious rhythms. I'm conjuring up on the mist a luminous projection. Precise matter! No. Fluid rhythms. The pleasures obtained from movement at the theatre, why deny them to the screen. Harmony of lines: harmony of light.

Lines, surfaces, volumes, evolving directly without con-trivance, in the logic of their forms, stripped of repulsive meaning, the better to aspire to abstraction and give more space to feelings and dreams, INTEGRAL CINEMA.

From the magazine Schemas published in 1927.
Translated by Felicity Sparrow and Claudine Nicolson.

Translator's notes:
1. 'Du sentiment à la ligne': the wry pun contained in the title is not easily translated into English. A la ligne is a French journalistic expression - to be paid by the line - equivalent in English to 'per 1000 words'. So the title could be translated 'Sentiment by the yard'. A la ligne also denotes passing to another subject, a new paragraph: 'now it's time to speak about feeling', or 'from feeling to language'. A third meaning implied in the title is that of a party-political line, a new strategy. All three meanings, as well as that of a geometric line, are played on in the title.
2. It should be noted that Dulac's use of the term 'abstract' is far removed from its subsequent debasement by other artists of her generation, of an abstraction from life in order to achieve a purity of form and emotion. It is significant that the example she expounds at length, the germination of a seed, describes a process which is simultaneously rigorously logical and charged with a universal symbolism.
3. I've retained Dulac's 'cinema intégral' as no English synonym conveyed the integral meaning... Similarly the dense style of Dulac's writing in French has been preserved.
Filmographies 1940-75

Jordan Belson

1926 Born in Chicago
Studied painting at the California School of Fine Arts
1957-59 Worked with Henry Jacobs as Visual Director of the 'Vortex' concerts in the Morrison Planetarium in San Francisco.
Lives in San Francisco

1947 Transmutation (destroyed)
1948 Improvisation No. 1 (destroyed)
1951 Mambo 4 min
1951 Caravan 3 min
1952 Bop Scotch 4 min
1953 Mandala 3 min
1958 Flight 10 min
1959 Rags 7 min
1959 Sense 4 min
1960 LSD (unfinished)
1961 Allures 9 min
1962 Illusions (unfinished)
1964 Re-Entry 7 min
1965 Phenomena 6 min
1967 Samadhi 6 min
1969 Momentum 6 min
1970 World 6 min
1970 Cosmos 6 min
1971 Meditation 7 min
1972 Chakra 6 min
1973 Light 8 min
1975 Cycle 10 min
1977 Music of the Spheres 11 min

Originally a widely exhibited painter, Belson turned to film-making in 1947 with crude animations drawn on cards, which he subsequently destroyed. He returned to painting for four years and, in 1952, resumed film work with a series that blended cinema and painting via animated scrolls. The four films produced in the period 1952-53 were Mambo, Caravan, Mandala, and Bop Scotch. From 1957-59, he worked with Henry Jacobs as visual director of the legendary Vortex concerts at Morrison Planetarium in San Francisco. Concurrently, he produced three more animated films, Flight (1958), and Raga and Suncle (1959). Allures, completed in 1961, found Belson moving away from single-frame animation toward continuous real-time photography. It is the earliest of his works that he still considers relevant enough to discuss.

He describes Allures as a 'mathematically precise' film on the theme of cosmogenesis — Tchalard de Chardon’s term intended to replace cosmology and to indicate that the universe is not a static phenomenon but a process of becoming of attaining new levels of existence and organization. However, Belson adds, 'It relates more to human physical perceptions than my other films. It is a trip backwards along the senses into the interior of the being. It fixes your gaze, physically holds your attention.'

'I think of Allures,' says Belson, 'as a combination of molecular structures and astronomical events mixed with subconscious and subjective phenomena — all happening simultaneously. The beginning is almost purely sensual, the end perhaps totally nonmaterial. It seems to move from matter to spirit in some way. Allures was the first film to really open up spatially. Oskar Fischinger had been experimenting with spatial dimensions, but Allures seemed to be outer space rather than earth space. Of course, you see the finished film, carefully calculated to give you a specific impression. In fact, it took a year and a half to make, pieced together in thousands of different ways, and the final product is only five minutes long. Allures actually developed out of images I was working with in the Vortex concerts. Up until that time, ny films had been pretty much rapid-fire. They were animated, and there was no real pacing — just one sustained frenetic pace. After working with some very sophisticated equipment at Vortex, I learned the effectiveness of something as simple as fading in and out very slowly. But it was all still very impersonal. There's nothing really personal in the images of Allures.'


Stan Brakhage

1933 Born in Kansas City, Missouri
Lives in Boulder, Colorado.

(selected filmography)
1958 Anticipation of the Night 42 min
1959 Window Water Baby Moving 12 min
1959 Sirius Remembered 11 min
1960-62 Dog Star Man 83 min
1961-65 The Art of Vision 270 min
1964-69 Songs 1-20 340 min
1963 Nocturne 4 min
1968-70 Scenes from Under Childhood 137 min
1969 The Horseman, The Woman and The Moon 19 min
1974 Test of Light

Brakhage's early films were narrative-based; many were psychedelics dealing with adolescent frustration and anomie. By 1958, under the benign influence of various avant-garde artists in other fields, he had become more interested in
aspects of vision than in narrative as such; the transitional point was marked by his film Anticipation of the Night. His theory of 'closed-eye vision' was developed over the following five years, in tandem with practical experiments in 're-seeing' the surface of film to produce new textures, colours and rhythms. These researches climaxed in the near-simultaneous completion of the theoretical book "Metaphors on Vision" (published as Film Culture No. 30 in 1963) and the 'mythopoetic' film Dog Star Man. His subsequent work has been considerably less portentous; it is founded on his denial of the self as an organising consciousness, and most of it takes the form of empirical enquiries (sensual or lyrical in tone) into phenomena as varied as refractions of light in cut glass (The Tess of Light, 1975) and autography procedures in the Pittsburgh morgue (The Act of Seeing with One's Own Eyes, 1971). He currently supplements his film work by teaching and lecturing; a group of lectures delivered at the Art Institute of Chicago in 1970/71 have been published as The Brakhage Lectures (1972).

Brakhage's films anticipate structural cinema by drawing attention to their own surfaces; photographic representation is held in abeyance by techniques like filming through filters and distorting lenses and adding layer upon layer of superimposition, so that many of the films become acts of 'pure' presentation. At its most innovative, Brakhage's work on the surfaces of his films has extended to collage: the four-minute Moonlight was made entirely by affixing moth's wings and assorted flora to strips of clear film, and then running them through as optical printer. This technique reappears in The Horseman, The Woman and The Mosh, wherein the film surface is also dyed, painted and treated so that it will grow controlled crystals and mould.

Robert Breer

1926 Born in Detroit
Lives in Palisades, New Jersey

(selected filmography)
1952 Form Phases 1 2 min
1953 Form Phases II & III 6 min
1954 Form Phases IV 4 min
1954 Image by Image 1 (loop)
1955 Image by Image II, III, IV 6 min
1956 Image by Image IV 3 min
1958 Cats 1 min
1959 Motion Pictures 3 min
1956 Recreation 1 2 min
1957 Recreation II 1 min
1957 Jamestown Balloons 6 min
1957 A Man and His Dog out for Air 3 min
1957 Par Avion 5 min
1957 Par Avion 5 min
1959 Eyewash 3 min
1960 Homage to Jean Tinguely's Homage to New York 9 min
1960 Inner and Outer Space 4 min
1961 Blazes 3 min
1961 Horse Over Teakettle 6 min
1962 Fancy's Birthday 13 min
1963 Breathing 5 min
1964 Far Fight 11 min
1966 60 5 min
1968 PBL Nova 2 & 3 2 min
1969 67 5 min
1970 70 5 min
1971 Gulls and Buys 7 min
1974 Fuji 8 8 min

Breer graduated in fine art from Stanford in 1949, and then spent most of the following decade in Paris, where his first films grew out of his painting work. He says that his painting 'was influenced by the geometric abstractions of the neo-plasticists, following Mondrian and Kandinsky. (...) It was a rather severe kind of abstraction, but already in certain ways I had begun to give my work a dynamic element which showed that I was not entirely at home within the strict limits of neo-plasticism. Also, the notion of absolute formal values seemed odd with the number of variations I could develop around a single theme and I became interested in changing itself and finally in cinema as a means of exploring this further.' (Interview in Film Culture No. 27) His films have ranged from hard-edge abstract animations in the Ruttman and Eggeling tradition to collage loops and strips in which every frame is completely different from its neighbours. He returned to America in 1959, and still lives and works in Palisades, New Jersey. His later films have occasionally used live action photography (e.g., a film record of one of Jean Tinguely's auto-destructive machines) and relatively orthodox line animation (e.g., Fuji, 1974). Apart from
his film work, he continues to produce kinetic sculptures and to experiment with
Mutoscopes, hand-cranked machines for viewing flip-cards.
Breer's earliest films, the Form Phase series (1952/54), refer back to the
German concrete cinema of the '20s. His later abstractions, notably 60, 69 and
70 (whose titles refer to their dates of production), look forward to the
structural cinema of the '70s in their play on audience expectation and the
mechanics of visual perception. His other work generally retains referential or
representational elements, although always in a context which challenges the
integrity of the representation: the Image by Images series (1954/56), comprised
entirely of single-frame photographs, is typical in this respect.

Tony Rayns

Wojciech Bruszek

1947 Born in Wroclaw, Poland
Graduate of the National Film, Television and Theatre Academy, Lodz.
1970-77 Member of WARZTAT group in Lodz.
Lives in Lodz. Does not work in official profession cinematography.
1971 Stock-Taking 5 min
1972 Appleprom 6 min
1972 Braided 10 min
1973 YYAA 3 min (35mm) and 5 min (16mm)
1974 The Door 1 min
1974 Test – Door 2 min
1974 Brain Ignition 4½ min (lost)
1975 Sixth Fashion Sites 3 min
1975 Match – Boa 5 min (35mm) and 7 min (16mm)
1976 Tiz Spoon 2 min
1977 Points 10 min

Outside
What I do is based on two principles:
1. The duality of the notion — What exists,
2. The beliefs that the mechanical and electronic means of recording and
transmission (film, video, photography, etc.) partly act regardless of our mind.

ad 1. The notion what exists has two meanings:
— In the first one what exists — exists beyond me, outside.
— In the other what exists — is a proposition for what exists.

A proposition exists as, to put it shortly, a result of cultural pressure.
What exists, in this meaning, is a Convention.

ad 2. The picture of the world, as communicated to us by the mechanical and
electronic means of transmission, is quite different from the concept of
what exists, which we use everyday. Our brain is formed in such a way that it
perceives and may make use of only that part of the possibilities of the means
of transmission which do not break down that convention. It has the tendency
to make use of the existing rules, independent of the fact whether they preserve or
lose their up-to-dateness.

What I do, is nothing else than setting traps for what exists.

I try to set the traps on the border line of the 'spiritual' and the 'material', of
what we know and think of and what there is.

This procedure systematically followed results in the destruction of the
creation of what exists, at the same time mechanical and electronic means of
transmission, as the channel hypothetical what exists in the first
meaning-outside-as the potential energy of destruction.

William Burroughs and Antoni Balch

(selected filmography)
1963 Tower Open Fire
1967 Cut-Up
1972 Bill and Tony

Burroughs was born in St. Louis in 1914. Graduated from Harvard in 1936, and
briefly studied medicine in Vienna. He travelled extensively, and at one point
researched pre-Columbian civilizations in Mexico City. In 1944 he became
addicted to heroin. He began writing in the early '50s with encouragement from
the poet Allen Ginsberg, and became known as a kind of elder patron of the
Beat movement in New York. He has subsequently lived in Paris, Tangier,
London and New York. His published works include nine novels, numerous
essays and an "ideal" film-script. Much of his writing makes use of cinematic
metaphors.

Balch was born in England. He learned film-craft in the advertising film
industry in the mid-Fifties. He has subsequently worked as an editor, distributor,
exhibitor and director, making both avant-garde shorts and commercial feature
films. He met Burroughs through the painter-novelist Brian Gysin, in Paris in
1966, and they have collaborated on three short films, all closely related to
Burroughs' writings.

The Cut-Up takes one of Burroughs' literary procedures — the arbitrary
re-arrangement of half pages of text to yield mysterious new texts — and applies
it rigorously to film. The original footage was a mixture of documentary (scenes
from the everyday lives of Burroughs, Gysin and others) and fiction (staged
scenes from Burroughs' novels; and an anecdote about the practice of Gysin's
calligraphic paintings). It was conventionally edited, then cut into four
approximately equal lengths. It was then assembled in its final form by taking
one-foot lengths from each of the four segments in strict rotation. Variations
occur only when a shot-change comes within one of the one-foot lengths. The
soundtrack of four permuted sentences was prepared independently of the
visuals by Burroughs, Gysin and Ian Sommerville.

Balch's other collaborations with Burroughs have experimented with less
systematic cut-ups, with scratching and colouring on the surface of the film, and
with the visual strobos created by Gysin's 'dream-machne' sculptures. Their
third film is designed to be projected on the human face.

Tony Rayns

Bruce Conner

1933 Born in Kansas
Lives in San Francisco
1958 A Movie 12 min
1961 Cosmic Ray 4 min
1964-64 Report 13 min
1963 Visions 3 min
1967-69 Looking For Mushrooms 3 min
1967 Breakaway 5 min
1967 The White Rose 7 min
1967 Liberty Crown 5 min
1968 Ten Second Film 10 sec
1969 Permian Strait
1973 Five Times Marilyn 13 min
1973 Monogrid 4 min
1977 Crossroad

Conner is an artist who specialises in collage-sculpture, and a teacher at the San
Francisco Art Institute. His films could be considered either as extensions of his
work or as part of it; several of them exist not only as films for projection
but also as film-strip sculptures, since their patterns and rhythms exist as much
in space as in time. Most of his films are collage-based, using combinations of
'found' and original material (including numbered leaders, title cards and other
deductions of the cutting-room) to tease humorous/frenetic/legiblere variations
from images of violence and sexuality. He feels ambivalent about allowing his
work into conventional (and hence uncontrolled) distribution, and continually
revives and recuts his films. Cosmic Ray exists as both a 'finished' 16mm film
and a selection of three alternative 8mm cassettes; Report, a film constructed
chiefly from reportage materials about the presidential assassination in Dallas,
exists in at least eight variant cuts.

Conner's film collages push towards a 'film as film' materiality in several ways.
The heterogeneity of his materials (everything from old cartoons and war
documentaries to scraps of leader and 'waste' footage) militates against the
principles of orthodox montage; the profusion of images refers to cinema as
a medium and as a practice rather than to any pro-filmic event. And his use of
repetitions and loops directly parallels one of the main signifier-challenging
strategies of structural film-makers.

Tony Rayns

Tony Conrad

Born in Concord, New Hampshire
Lives in Buffalo
1966 The Flicker 30 min
1970 Coming Attractions 78 min (with Beverly Grant Conrad)
1970 Straight And Narrow 10 min (with Beverly Grant Conrad)
1971 Four Square 18 min (with Beverly Grant Conrad)
1971 Ten Years Alive On The Infinite Plain 20 to 200 min
1971 Yellow Movie (a series)
1973 Films of Noise 45 min
1973 Loose Connection 55 min
1973 Deep Fried 7366
1973 4-X Anach 2 min
1973 Electrowarp 4-X Brine Damaged 2 min
1973 Current 7302
1973 Deep Fried 4-X Negative (2 versions)
1973 7302 Creole
Joseph Cornell

1903 Born in Nyack, New York
1922 Died

(selected bibliography)
1936 (completed) The Children’s Party 8 min
1930 (completed) Coalition 7 min
1930 (completed) The Midnight Party 3 min
1939 Rose Hobart 13 min
1955 Goit Redown 5 min
195 Angel 3 min
1958 Weave Saw on Mulberry Street 6 min

Joseph Cornell born 24 Dec 1903 Nyack, NY, died 29 December 1972, Flushing, N.Y. Educated at Phillips Academy, Andover, Mass (America’s Eton, like C. Andre & F. Stella). His family moved to Utopia Parkway, Flushing, in 1929 and he lived in the same house until his death. Little formal art training, but influenced by the lively artistic climate of New York, particularly the Surrealists.

Best known as a collagist and as a maker of Surrealist boxes, Cornell made a number of striking contributions to the field of American avant-garde cinema, almost always in collaboration with some more established film-maker. More often than not, the experience of working with Cornell led his collaborators into new directions in their own work; this was the case, for instance, with Stan Brakhage, Ken Jacobs, Rudy Burkhardt and Larry Jordan.

Cornell collected films and film materials since the ’30s. His first known film

*Rose Hobart*, made in the late ’30s, extended his ideas about collage to the cinema: the film is a 13-minute digest of the 1931 Universal feature East of Borneo (directed by George Melford), re-edited to disrupt the images of narrative causality and to imbue them with paradoxes and contradictions. His other films have performed analogous transformations on other footage, either ‘found’ or specially shot. In 1955, for example, Brakhage shot two films for Cornell (Wonder Ring and Tower House), both conceived as records of structures that were about to be demolished; in both cases Cornell subsequently reworked the footage into a more idiosyncratic form. Tower House was re-edited to become Centuries of June, and Wonder Ring was printed backwards and reversed left-to-right to become Over Redown. In 1970, the animator and collagist Larry Jordan brought three of Cornell’s works in progress to completion, under Cornell’s own direction: these were The Children’s Party, The Midnight Party and Coalition, all using ‘found’ footage of a children’s party, and all cutting other, disparate materials into arrangements of the original footage. Cornell’s cinema is partly a work of art, inseparable from its transformations which rest on the ‘reading’ of signs and then the systematic subversion of the original denotations. It is also a major step towards a materialist cinema, insofar as it treats film (‘found’ or otherwise) as an object to be worked on.

Douglass Crockwell

194 Born in Ohio

Worked as free-lance illustrator and painter, began making films in 1931.

198 Died in Glen Falls, N.Y.

1938 Fantasmagoria I

1939 Fantasmagoria II

1940 Fantasmagoria III

1946 Glen Falls Sequence

1947 Long Bodies

Crockwell is the definitive animator-in-isolation. A total non-professional, he grew out of no existing tradition and stands as a Grandma Moses figure in the history of animation—offering the same privileged perspective on the basic precepts of his art. His films completely reject the musical structures common to so much abstract film, show no allegiance to narrative yet (unlike Fischinger’s early wax films, for example) can’t be categorised as ‘experiments’. Links between images seem to occur in Crockwell solely through free association or as the result of the equivalent of organic growth (a parallel existing in this latter respect in Fischinger’s great last work Motion Painting No. 1 of 1949). Glen Falls sequence was largely painted on glass. Long Bodies created in part on Crockwell’s independently invented version of the wax slicing machine.

David Curtis

On Glen Falls Sequence and The Long Bodies by Douglas Crockwell

Glen Falls Sequence is a group of short animations bound together chiefly by their position in time. Each has a name of significance such as Flower, Landscape, Parade, Frustration, etc. These are not mentioned in the film for the sake of greater unity. Generally speaking, the technique has improved the practice. A certain archaic immobility which characterized some of the earlier films has given way to a greater freedom of action which is pleasing but which may lack some of the former aesthetic content. Most of Glen Falls Sequence and part of The Long Bodies are concerned with pictorial qualities which might more rightly belong to the field of still painting. That is possible to make an interesting print from almost any single frame gives an indication of this. In these parts the motion and timing have been secondary to the general pictorial scene. Efforts were made later to play down this scenic quality with rather gravelling results. The most simple abstraction was found to be taking on meaning with motion. Along with others a real question now is how much motion can the observer comprehend and how much immobility will he accept. The study of these points should prove very interesting.

The Long Bodies is made up of a mixture of old and new material. Practically all of the new film was produced by the wax-block method which gives rise to the title. Incidentally, this does not refer to the shapes as they appear on the scene. Rather, the long body of an object is the imaginary four-dimensional path it leaves through space-time during its existence. At any moment of time we see in the real object a three-dimensional cross-section of the long body somewhat analogous to the two-dimensional cross-section obtained when the wax block is sliced. To carry the analogy further, the forms embedded in the block represent the long bodies of the two-dimensional patterns seen on the screen. A rather new and difficult type of visualizing is required to plan the course of a pattern through the block, but is usual the problems seem to fade with experience. In a way, this is a sculptor’s art.

From an unpublished statement to the assistant curator of the Film Department of The Museum of Modern Art, 26 August 1947

Reprinted from Russell & Starr, Experimental Animation, 1956.

Guy-Ennest Debord

see Lettrism
Actions, events and performances (like Gustav Metzger's burning 'skoob' towers) gave DIAS its main focus. The films included ranged from Jeff Keen's animated collages (which comprise continuous streams of destruction/ construction: objects melt or burst images are obliterated by other images) to John Latham's ferocious optical assaults Talk and Speak.

Maya Deren

1917 Born in Kiev
1961 Died in New York City
1943 Meshes of the Afternoon 12 min
1944 At Land min
1945 A study in Choreography for Camera 15 min
1946 Ritual in Transfigured Time 15 min
1948 Meditation on Violence 12 min
1959 The Very Eye of Night 15 min

Deren's father was a psychiatrist, and the family emigrated from Russia to America in 1922; she graduated in journalism from the University of Syracuse and New York University. Interested in poetry and modern dance, later also in voodoo and superstitious ritual, which led her to spend several years in Haiti and to write the book-length study Divine Horsemen (1955). Her first film was made in Los Angeles in 1943, in collaboration with her then-husband Alexander Hammid (ex-Hackenschmeid). Four of her five other films were made in the same decade, with various other collaborators in New York. She was a tireless organiser and propagandist for independent cinema. She published numerous theoretical articles on her own work and on cinema in general; many, including the whole of her 1946 pamphlet An Anagram of Ideas on Art, Form and Film, are reprinted in Film Culture No. 39 (1968).

Deren perceived the film image only as an indexical-iconic sign, and the theoretical thrust of her writings is towards a definition of film realism that will include her interests in metaphysics and ethnography. Not surprisingly, then, her most provocative and influential film work lies outside the scope of this survey, in the disturbing and richly conspectual psychodramas that she made in 1943 and 1944. For her, the aesthetic problem of form is, essentially and simultaneously, a moral problem; the form of a work of art is the physical manifestation of its moral structure. Nonetheless, her later (and, by common consent, weaker) films find her moving towards a metaphysics of form that has points in common with the tradition explored in this exhibition: Meditation on Violence, for instance, reduces its content to an 'exemplary' display of Chinese martial arts disciplines and its form to a parabolic curve through space and time, drawn like a graph.

Fred Drummond

1944 Born in Glasgow
Lives in Leicester
1961 Photofilm based on Maybridge, 10 min
1968 Shower Proof 10 min
1968 Shower and Loop 12 min
1968 Globe/Robe 15 min (2 Screen)
1969 Slip Strip 12 min
1969 Maya Replicates
1976-71 Green Cat Gap 16 min (2 Screen)
1971 Anhuris 15 Min (2 screen, super-8mm)
1972-74 Vermin Notes 15 min (super-8mm)
1971 Circle 12 min (super-8mm)
1979 Zero 25 min (super-8mm)
1979 Kurt Kren Portrait 10 min (super-8mm)

Fred Drummond has made a series of short single and double screen films that explore visual rhythms and the potentials of the printing process. They are non-narrative, careful orchestrations of repeated loop footage. Shower Proof, an early film, is built out of a sequence of a man and woman in a bathroom, brushing his teeth, she tying up her hair, stepping into the shower, stepping out, drying herself, then the man again brushing his teeth, and so on in various sequences. The film is printed on increasingly high contrast negative. The image grows from the abstract, yet plainly anthropomorphic, steady through to the personal yet non-specific — we see neither the man's nor the woman's face in detail. The film explores the relation between form and movement. Shower and Loop uses the same footage, plays a loop of film, but presents it as once more personally and less abstractly — the man and woman are individuals, it occurs to us to wonder who they are, about their relationship to each other and to the camera, yet the movements are the same as in the previous film. The visual rhythm in both films is so strong that in spite of the films being silent the viewer has a strong visual impression. Maya Replicates uses fades, freeze frames, slipping of film and loop printing. Drummond described its 'ingredients' as a sickly female, found bleach loop of bogus chemical overeers, Marianne in the woods, Phut City.

Green Cat Gap uses black-and-white material printed onto colour stock through green filters simultaneously with a superimposed flicker loop which gives the film a continuous pulse.

Verina Glaesener, Cinema Rising, 1972

Up to 1972 my films (those which exist as films rather than as fragments of expanded cinema events) were produced under the umbrella of the London Film-makers' Co-op. They involved an attempt to solve the problems of structure beneath image, the questions of a pre-determined or imposed system versus a fluid working process and film time as a present time event. While the system in Shower Proof is externally imposed Maya Replicates grew out of its own construction process through the printing and arrangement of sections of 'found' footage. Green Cat Gap is a synthesis of these methods.

A parallel intention has been to make works which give the viewer choice of interpretation and freedom to experience the time element. Therefore the images are ambiguous and secondary to time and duration as the basic ingredients.

Since 1972, having given up 16mm for Super 8, I have developed these concerns with less emphasis on the material/physical aspect of film and concentrated on structuring the actual 'filming' activity. This has meant an elimination of editing and printing techniques and can be seen as a 'note-making' project. It is not intended to be diaristic or documentary so much as an attempt to use everyday images, landscape etc. as a source for notation.

Fred Drummond. 1979
Claudine Eieryman
1945 Born in Paris
1974 Co-founder (with Guy Fihman) of Paris Film Co-op
1976 Editor of film periodical Mebra

Live's Paris, teaches film at the University of Paris VIII.

V. W. (Vioettes - women) has been elaborated from five sequences, filmed and
chosen in relation to certain camera movements linked to determined postures;
these five base sequences have been broken down as follows:
A/Champs-Elysees
B/Ranpe
C/Cinec
D/Pots
E/Club

As for the materials:
Sequences A & B have been previously re-worked in order to produce positive
and negative colours simultaneously following the selection of values; Sequence
D is in colour and Sequences C & E are in black and white.

The proposal of the film is to find visual effects following on from a treatment
of cinematographic information which goes beyond the levels of acceptability
of standard cinema (Narrative — representational — industrial). This level has
been fixed under six frames in continuity. Perceptual cinematographic speed
unknown until now have thus been constituted. Speed is what characterises
cinematographic information: it is constituted through the encounter of
possibilities of combinations and rhythms.

Two matrices have been elaborated:
1. The matrix of combinations of sequences:
   Combinations of of 2, 3 and 5 have been retained.
2. Matrices of combinatory rhythms.
   For every kind of combination, different combinatory rhythms have been
   established, the number of continuous frames of the same sequence remaining
   always below six.

Of the different possibilities contained in the crossing of these two matrices
102C5C2, 25C3, 2C4, each with their specific rhythm, have been retained. These 17
sequences are generally of the same length (2500 frames some sequences are
longer (3575 frames).

The realisation of speed (combinations and rhythms) was undertaken with the
help of a store of images to which was attached an instrument (conceived by C.
Points) which in facilitating the memorisation of the rhythms, suppressed the
risk of errors.

Several kinds of arrangement were contemplated:
- a didactic type montage (the speeds of each sequence are re-grouped in order
  of increasing complexity).
- homogeneouse arrangement.
- homogeneous/heterogeneous arrangement.
- heterogeneous arrangement.

It was this last possibility which was retained since it is the increase in the
number of impulses which creates not only the unification (peculiar to this kind of
film) but also the volumetric dimension through which the brain
differentiates.

Once the ordering was determined, was left the problem of passages between
these sequences. Three solutions were envisaged: freeze frames, dissolves, black
(leader).
- freeze frames recreated of recognition
- dissolves drowned the perceptual rhythm and re-created a narrative-like
effect (the graph of strong and weak events).
- black modulated in relation to the strength of each sequence fitted the
  condition of maximum perceptual activity: it was this solution which was chosen.

Claudine Eieryman

David Dye

1945 Born in Ryde, Isle of Wight
1971 Mirror Film 6 min
1974 Two Cameras 3 min (2 screen)
1977 Towards/From 3 min (2 screen)
1978 Cross Reference Loops (installation)
1977 Projection/Inversion 30 seconds (installation)
1977 Scan 3 min (action)
1977 Confine 3 or 6 min (action)
1977 Window 3 min (performance)
1977 Unsigning 1 6 seconds (action)
1977 Hand Piece 40 seconds (installation)
1977 Film onto Film 20 seconds (installation)
1977 Unsigning 2 19 seconds (installation)
1977 Eight Projector Piece 15 seconds (installation)
1977 Blind Spot 3 min (2 screen)
1977 Overlap 3 min (action)
1977 Open/Close 3 min (action)
1977 Towards/From Reversal 10 sec (action)
1977 Statics Converted, Vertical/Moving Stretched, Horizontal 15 seconds (film
  and sides)
1977 4 TV (Western Reversal Installation) 30 min
1977 4 slide projector piece (installation) 2 screen
1977 Edge Guess 3 min (action)
1977 Too Close to see (action)
1977 Throw (2 screen, action)
1977 Dissection 15 min (performance)
1977 Light Interruptions 6 min
1977 Light Pen 3 min
1977 Scan 10 min (installation)
1977 Man in Space 10 min (performance)
1977 Throwing Light On 10 min (performance)
1977 A Letter to Rush 3 min
1977 A/Partners (installation)
1977 A/Partners 10 min (action)
1978 3D (installation)

(All films are Super-8. Action denotes artist's intervention, e.g. hand-held
projector or mirror manipulation)

My work could be termed 'sculptural cinema' in the sense that it deals plastically
with the projector light-beam, bending and re-directing it through mirrors or
changing the image area by hand-held projection. Most of my works have
emphasised the relative nature of projection in that what happens on the screen
is dependent on what happens in front of it. As the projection situation depends
on the film, so the film depends on the projection situation — so much so in my
work, that in the working process, the actual film is sometimes changed. The
subject matter of the film has to be integrated with the real-life situation
going on in front of the screen. Recent works have used 'found' or 'archetypal'
film images in order that the dialogue with 'dominant cinema' is made more
explicit. Not so much an alternative cinema rather a cinema that would make
looking at the commercial cinema more fluid and questioning.

David Dye

In Dye's work, language has never been more than a subsidiary, instrumental
element. Sensing that, through him, desire could not communicate in words, he
has refrained from using words against his desire. His 'concepts', even when
translatable into words, have been 'spatial', sculptural concepts. They constitute
a mechanism that produces signification, but a signification that is inextensible
to analysis. They have the full weight of ambivalence. His works are mechanisms
in which energy is allowed to flow between two poles, two sides of a boundary,
inside/outside, towards/away from, projection/introjection, signature/unsigned,
Western/reversal. Like pasts, they are mechanisms by which one can say two
contradictory things at once: they are a means of avoiding limitation,
confinement, definition, substantification, finally. They are desire-machines in
which desire may eventuate endlessly between poles or circulate continuously
around loops. To the 'art consumer' Dye's 'negative capability' may seem simply
negative. For others, it may be a 'gaia science' — for Nietzsche was notable in
preferring the nature of the 'Gaia' Buddha to the agnized grime of the
outstretched Christ (and its 'humanist' derivatives). David Dye's work operates a
'subversion of the subject' that bears witness to the demise of 'mas' as an object
of conceptual concern.


Helin Emboiho

1948 Born in Bremen
1972/73 Schene-Tady I 26 min
1973 Schene-Tady II 18 min

135
Valle Export

1968 Ping Pong
1968 Tat und Tastkino
1968 Abstract Film No 1
1968 Spitzscreen-Solipsismus (8 mm, expanded)
1968 Cating
1968 Aeff + Zaa + Ab + An (8 mm, expanded)
1969 Electron Ray Tube (with Peter Welbe)
1971-2 Interrupted line 3 min
1973 Augierische Dialektikationen 10 min (2 screen, 16 mm + 2 super 8 mm)
1973 Remote...Remote...Remote...12 min
1973 Man & Woman & Animal 10 min
1973 Invisible Adversaries

Valle Export works with video as a continuation of former expanded cinema actions, while her films, Remote...Remote...Remote... and Man & Woman & Animal represent a new development. In contrast to her theoretical video work, she has here started on an investigation of her own emotions. It is an attempt to recognize the depth of psychologica1l information caused by society, which determines her position as a woman. In this context her work at the exhibition of women's art, Magna (Vienna 1975), should also be considered. It can be understood as part of the work that concentrates on the exploration of woman's situation in society. The theoretical concept basic not only to her work but also to a great part of the bourgeois women's liberation movement is asailable: the problem is only seen in the psychophysical difference between man and woman.


1976 Outside 6 min (2 screen, installation)
1976 Ten Drawings 20 min
1976 Robot Rex 10 min
1976 Film for Projector with Claw and Shutter Removed
1977 Sound Fainting

DD — What motivated you to try to translate the immediate perception of a rectangular grid or pattern into one which is extended over the duration of two minutes?
SF — It's straight from Silkscreen, from working with that film for nearly a year. It just twanged: it would be nice to deal with a film in one stroke, to stay, well—'slash!' — I've dealt with a film is one stroke the beginning and the end in one go.
DD — What significant differences or similarities do you see between Silkscreen and Ten Drawings?
SF — I didn't think Ten Drawings would be narrative in any sense, so each one has a different character to it. Some are quite amusing; when I've shown it, there are certain points at which everyone titters or laughs, from just a mark that they know is going to happen. And it does happen, in an amusing way. Which seems odd for a felt-tip mark on film which has gone to great pains to be very strict and geometric.
DD — How do you account for that?
SF — It must have something to do with what someone expects to happen, and that's strengthened by the very fact that it does happen, but they might not have expected it to happen because it was so time.

Excerpted from unpublished interview with Deke Husinberry, November 1977

Guy Fihrman

1944 Born
1971 Co-founder (with Claudia Eizykman) of Paris Films Co-op
1969 L'Aute Scene (1972 sound version) with Claudia Eizykman
1971 Meine Nonparelle 12 min (with Claudia Eizykman)
1971 Socialisme Barbares 8 min (with Claudia Eizykman)
1971 Drei de Tours 13 min (with Claudia Eizykman)
1971 France-Soir 1 min
1974 Ultra Rouge-Infraviolet 31 min
1976 Cinegiks
1977-79 Trois Couches Suffisent 60 min

Ultra-rouge — infraviolet: time-colour. Colour: film only knows standard colours, which are the norms for the makers of photosensitive surfaces and the laboratories which deal with the treatment of emulsions; this involves the production of the whole chromatic spectrum (visible/sensitive through the chemical base) where normally only a single chromatic system should appear. Colours is the intensity which it Time: chromatic variations are set in motion from a painting - the red roofs of Paris - through specific and rhythmic procedures. A total fixity is accompanied by a double fluidity, chromatic and rhythmic; the only movements which are produced are not: the perceptual apparatus translates into movement what is just a variation in the chromatic spectrum and the modification of light intensity.

Both in terms of shooting and development at the laboratory, I came across problems (which conventional techniques were unable to resolve, having never posed them) which enabled numerous experiments: the film was made through multiple exposures, colour by colour, and often layer of emulsion by layer of emulsion. The graph of responses of the film was unexpected more frequently than not (finally some of the failed experiments were added to the initial cutting).

Guy Fihrman
Fluxus

The Fluxus films are not so much precursors of structural film as first instances of a 'structural' aesthetic in action; only their relative obscurity prevents them from being widely recognized as such. Fluxus prime-mover George Maciunas comprehensively demolished P. Adams Sitney's essay 'The Structural Film' with a riposte in the form of a chart, listing Fluxus (or Fluxus-related) antecedents for the various strategies claimed by Sitney as innovations of the 'structural film'. (Both Sitney's essay and Maciunas' chart are reprinted in The Film Culture Reader.)

The first Fluxconcerts occurred in New York in 1962; they featured action-music, happenings, environments, anti-art, poetry, Lettrism and other provocations. Participants included Maciunas, George Brecht, Dick Higgins, Arthur Koepcke, Nam June Paik, Tom Schmitt and Emmett Williams. Fluxworks shared a tendency towards the conceptual. The Fluxus 'opposition' could be summarized: anti-film art, anti-the artist as organizing ego, anti-art as commodity, pro-popular culture, pro-play, vaudeville and circus, pro-satire.

The first film made explicitly within the movement appears to have been Nam June Paik's Zen For Films (1962), a reel of clear film intended to gather dust and scratches; in 1964, Paik produced another version of the piece as a box sculpture.

Maciunas lists at least 31 films made within the movement during the Sixties. Selections from the list are distributed on Fluxus Anthology reels. The following films are included on the reel distributed by the London Film-makers' Co-operative (brief descriptions taken from the LFMC catalogue):

Yoko Ono: No. 4 (extract from her feature of the same title, showing tight close-ups of buttocks as their owners walk on a treadmill)

George Maciunas: Artwork (patterns, screens, wavy lines on clear film - no camera)

Chieko Shiomi: Disappearing Music For Face (transition from smile to no-smile)

George Maciunas: Ten Feet (film calibrated as measuring tape - no camera)

Robert Watts: Trace (X-ray sequence of mouth and throat, eating, salivating and speaking)

Albert Fine: Readymade (colour test strip from developing tank)

Paul Sharits: Zero (pages from catalogue, single-frame exposures)

Dots 1 & 2 (dot screens)

Wrist Trick (a hand holds a razor blade in various positions, single-frame exposures)

Unrolling Event (lavatory paper event; single-frame exposures)

John Cape: Police Car (unexposed shot of blinding light on police car)

Joe Jones: Smoke (cigarette smoke shot with high-speed camera)

George Landow: The Evil Faerie (a man flaps his arms like wings)

Hollis Frampton

1936 Born in Ohio Lives in Buffalo

1966 Manual of Arms 17 min
1966 Process Red 8 1/2 min
1966 Information 4 min
1967 States 17 1/2 min
1967 Heuridrome 7 min
1968 Snowblind 5 1/2 min
1968 Maxwell's Demon 4 min
1968 Surface Tension 10 min
1969 Palindrome 22 min
1969 Carrots & Peas 5 1/2 min
1969 Lemon 7 1/2 min
1969 Prince Rupert's Drops 7 min
1969 Artificial Light 25 min
1970 Zero's Lemma 60 min
1971 Hapax Legomena (Nostalgia) 36 min
1971 Hapax Legomena II (Poetic Justice) 31 min
1971 Hapax Legomena III (Critical Mass) 25 min
1971 Hapax Legomena IV (Travelling Matter) 33 min
1971 Hapax Legomena V (Ordinary Matter) 36 min
1972 Hapax Legomena VI (Remote Control) 29 min
1972 Hapax Legomena VII (Special Effects) 10 min
1972 Apparatus Sum 2 1/2 min
1972 Tiger Bait 10 min
1972 Yellow Springs 5 min
1973 Less 1 min
1974 Nocilous 3 1/2 min
1974 Banner 1 min
1974 Solaria Magellani: Vernal Equinox 70 min
1974 Solaria Magellani: Summer Solstice 32 min
1974 Solaria Magellani: Autumnal Equinox 27 min
1974 Solaria Magellani: Winter Solstice 33 min
1976 Solaria Magellani: The Red Gate 54 min
1976 Solaria Magellani: The Green Gate 52 min

Frampton's basic method is to develop complex filmic structures out of very diverse materials. These structures are highly synthetic, both in the ways that they combine and juxtapose materials that do not obviously relate to each other and in the ways that the principles of organization do not seem to be derived from anything inherent in the materials themselves as explicit narrative content. Rather, the principles of organization seem very independent and abstract, especially in the way that they frequently follow rigorously applied mathematical formulae. It is this sense of the rigorous structure being paramount, of its supereeding the explicit subject matter or anecdotal material of the shots themselves that most significantly suggests the aptness of the term 'structural' in describing Frampton's films.

In saying this, I am suggesting that the 'content' of the shots and the soundtrack do not directly indicate the actual subject matter of Frampton's films. Rather, I would suggest that Frampton's 'subject matter' is proposed through the structures he creates. Frampton's actual subject is the nature of representation, especially filmic representation as relation to other art forms and media. His films are reflections on the nature of film and, as such, they are theoretical texts but of a very special kind: they are theoretical texts which pose their questions, test their ideas, elucidate their propositions through filmic structures, through filmic demonstrations of the issues under consideration.

Bill Simon, "Reading Zorn's Lemmas," Millennium, Vol 1 No 2

Ernie Gehr

Biographical information withheld at request of film-maker.

1968 Morning 4 1/2 min
1969 Wait 7 min
1969 Reverberation 25 min
1969 Transparency 11 min
1976 History 40 min
1976 Serene Velocity 23 min
1976 Field 19 min
1976 Tree 4 min
1969-71 Still 50 60 min
1977-77 (6 untitled works)

A still has to do with a particular intensity of light, an image, a composition frozen in time and space.

A shot has to do with a variable intensity of light, an internal balance of time dependent upon an intermittent movement and a movement within a given space dependent upon persistence of vision.

A shot can be a film, or a film may be composed of a number of shots. A still as related to film is concerned with using and losing an image of something through time and space. In representational films sometimes the image affirms its own presence as image, graphic entity, but most often it serves as vehicle to a photo-recorded event. Traditional and established avant garde film teaches film to be an image, a representing. But film is a real thing and as a real thing it is not imagination. It does not reflect on life, it embodies the life of the mind. It is not a vehicle for ideas or portrayals of emotion outside of its own existence as an emotional idea. Film is a variable intensity of light, an internal balance of time, a movement within a given space.

When I began to make films I believed pictures of things must go into films if anything was to mean anything. This was almost everybody who has done anything worthwhile with film has done and is still doing but this again has to do with everything is still a re-presenting. And when I actually began filming I found this small difficulty: neither film, filming nor projecting had anything to do with emotions, objects, being, or ideas. I began to think about this and what film really is and how we see and feel and experience film.

Ernie Gehr, programme note for a screening at MOMA NY on February 2, 1977.

Dwight Grant

1912 Born in Springfield, Ohio
1933-35 Studied at Dayton Art Institute and the National Academy of Design (New York)
1935 Worked as art teacher and abstract painter, began making abstract films in 1940
1948 Co-founded animation studio (Sturgis-Grant) which specialised in production of medical films, subsequently moved to Pennsylvania as free-lance scriptwriter and animation designer
Lives in Pennsylvania

137
Peter Gidal

1946 Born
Lives in London

1967 Room (Double Take), 16 min
1968 Key, 10 min
1968 Loop, 10 min
1968-69 Hall, 10 min
1969 Clouds, 10 min
1969 Head, 35 min
1970 Take, 5 min
1970 Secret, 25 min
1970 Portrait (Subject/Object), 10 min
1971宋Film Notes (16mm, 40 min)
1971 Fuku, 7 min
1971 Bedroom, 30 min
1972 Movie No 1, 5 min
1972 Upside Down Feature (1967-72), 76 min
1972 Movie No 2, 5 min
1973 Room Film 1973, 55 min
1973 PhotographFilm, 5 min
1974 Film Print, 40 min
1974 CONN/ST/RUC/T, 35 min
1975 Condition of Illusion, 303 min
1977 Copenhagen/Paris, 40 min
1977 Sileu Partner, 35 min
1978 Fourth Wall, 49 min
1978 Epilogue, 8 min
1978 Untitled, 8 min

Structuralist/materialist film, the site of Peter Gidal's work, stresses the processes by which images are produced; their duration and significance as effect of the specificity of film and produced in the moment of viewing by spectators thus renders as subjects. Film is reflexive in identity (as ensemble of materials and processes through which is inscribed in representation the record of those processes at work) — Ian Christie in the Monthly Film Bulletin, May 1978; and the spectator is reflexive within and for that identity. Identification in the normal cinematic sense is disrupted by Gidal's discursive strategies in film-making, so that again it is possible to speak of a double-chain; the film is defined by those strategies of absence, extension, repetition, withholding of image, of the legible . . . works with the spectator in process. The narrative of action is rejected, or displayed as a set of impossible fragments hints of human activity.

In Gidal's works, his work is constructed within a materialism that is severely implicated in the contradictory stances that attempt to situate themselves through the film, between the material support of the film as physically foregrounded, presented, through duration, etc (ie, grain, light/dark, focus, frame, movement, position, stillness, etc), and the fixing of whatever representation it is that filmed. Conflict is there in the film which is in movement for the subject.

Al Rees, EFI Productions Catalogue 1977-78

The possibility of contemplation offered by photographs is recouped and even radically undercut in Film Print by the continually moving picture . . . when meaning does not emerge (it) is immediately displaced by denial of the space . . . The suppression of meaning-production as a cinematic process is a structuring feature of the film . . . The repetitions, the radical refusal of semiotics (denial of the codes of dominant cinema but also the codicity of structural film itself) and the self-reflective nature of the space articulated by the film, all serve to operate against the kind of closure associated with a defined and homogenous film space.

Annette Kuhn, Perspectives on British Avant Garde Film Catalogue, Hayward Gallery, 1977

Wihelma and Birgit Hein

1940 Born in 1940 in Duisburg and 1942 in Berlin

1967 S & W 10 min
1967 Und Sie? 10 min (Sound by Christian Michelis)
1968 Grün 24 min (Sound by Christian Michelis)

1973-74 Von der Schule zur Filmwelt, 35 min
1975 John, 26 min
1976 Material filme (I-35 mm)
1978-79 Theme (Super R) 1-XX/1 30 min
1979-80 Verdammt In Alle Eigentum 66 min
1979-80 Das Konzert 50 min

1973 God Bless America 3 min
1973 Still 75 min
1973 London 30 min
1974 Structural Studies 37 min
1975 Doppelprojektion VIII-XIII 25 min
1975 Porraus II, 24 min
1976 Material filme (I-35 mm)
1977 Material filme (II-35 mm)
1981-84 Home Movies (Super R) 1-XX/1 30 min
1976-79 Verdammt In Alle Eigentum 66 min
1979-80 Das Konzert 50 min

Our films pose questions about the basic problems of aesthetic creation: where does it start; where is the border between art and science; to what extent is the technical process of reproduction already an elementary step in aesthetic transformation; how far are the simplest manipulations with the camera when shooting already interpretations of the reproduced reality? In this confrontation of manipulated abstract and realistic image material another problem becomes clear. It occurs in any dealing with art, for example when you compare the catalogue description and the real object. It is the 'expression' of a visual formulation which can be physically experienced but not expressed by verbal language. It is as B. Eichenbaum says the 'photographic, the real — essence' of the film, 'the language that transcends reason, that lies in front of reason.' Structural Studies is a first effort to tackle this problem, to see how far it is possible to make the 'unnatural' element of the work into a conscious process. This question becomes important if you want to overcome the somber ideology of the unconscious creative power of the genre, where the art and artist occupy a position outside and above society and its historical process.

In reviews the film was often called a finger-exercise or non-art. This reaction is provoked by the loose or open construction of the film. It is part of the concept of opposition to the closed form of the classical work of art and its ideology of sequences. The structure of the film is open to change and continuation. The 'work of art' must not close but open itself. It is therefore necessary to lay open the process of working, to build the film up almost didactically and show how it is made. The aesthetic information must become a part of everyday life.


Hy Hira

1911 Born in Chicago
Worked as a photographer, lived primarily in Europe
1960 Died in Paris
Taka limura

1937 Born in Tokyo
Lives in New York

1962 Junk 12 min (8mm)
1962 Iro 10 min
1962-63 Love/AI 12 min
1963 Omen 7 min
1964 A Dance Party in the Kingdom of Lilliput No 1 12 min
1966 A Dance Party in the Kingdom of Lilliput No 2 14 min
1966 I Saw The Shadow 13 min
1967 White Calligraphy 11 min
1968-69 Face 22 min
1966-70 Film Strip II 12 min
1966-70 Film-makers 28 min
1967-72 Projection Piece No 1 (Dead Movie) (installation)
1969-70 Buddha Again (Cosmic Buddha) 17 min
1969-70 In the River, 20 min
1971 Skater 25 min
1972 Projection Piece No 2 (installation)
1972 Models Reel 43 min
1972 Temog No 1, No 2, No 3 (installation)
1973 Models Reel 2 44 min
1973 A Loop Seen as a Line (installation)
1973 + & - (Plus and Minus) 26 min
1973 1 to 60 Seconds (30½ min)
1973 Minute and Second (installation)
1974 Parallel 28 min
1975 24 Frames Per Second 20 min
1975 Syna Sound 12 min
1975-77 Ma (Intermitts) 45 min
1975 1 sec and (installation)
1975 Identity Piece (installation)
1975-77 Time and Duration Part 1 25 min
1977 One Frame Duration 12 min

Normally film has been regarded as what one sees on the screen on which the image is projected. What I am concerned with in my film installations is not just the screen but the whole system of projection, and I want to expose that system: the system which consists of facilities (projector, wall-screen) and materials (film, projected and not-projected light) within a space; (not-projected light is what light is blocked by black film). To expose the system, so that no longer hides in the background or ends the projection becomes a problem and material must be 'visible'; including non-visible light. To achieve this, I use, rather than a theatre with seats, an open space like that of a gallery, where people can come and go at any time, and walk around the installation. I do not darken the space, but exhibit under normal room light where projected light is still quite visible. I use either black or clear leader or both as materials, because I regard these as fundamental in one film: blocks light, the other transmits light.

To show film time as real time: using film as a device of time, marking the time on film or alternating black and clear film according to the time scheme, or exhibiting the displayed time and projected time simultaneously. All the installation 'except Timing' use a loop film projection format so that the duration of the performances is theoretically unlimited.

The film-installations should not be seen in terms of Expanded Cinema (as formats other than regular single-screen projection have been called). Expanded Cinema still refers, more or less, to the image on the screen as the main object — though there may be multiple screens; nor should the installations be seen as movie-sculpture consisting of the machines. The film installations are a diatonic, positive and negative, which makes apparent what the film system is.

Taka limura, ‘On Film Installation,’ Millenium Film Journal, Vol 1 No 2

Iisdore Issu

(see Letterism)

Ken Jacobs

1933 Born in New York

1956 Orchard Street 15 min (abandoned)
1957 Saturday Afternoon Blood Sacrifice: TV Plug Little Cobra Dance 9 min
1957 Scar Spoiled To Death, 110 min (approx. unfinished)
1957-62 Little Ships At Happening 18 min
1955-60 Blonde Cobra 28 min (with Bob Fleischer and Jack Smith)
1961 The Death of P Town 7 min
1964-64 Road/Driver Copers 20 min (Rewired in 1975)
1964 Window 12 min (originally 8mm)
1964 The Winter Footage 20 min (8mm)
1964 We Stole Away 36 min (8mm)
1965 Lisa And Joey In Connecticut You’re Still Here 12 min (originally 8mm)
1965 The Sky Skyscraper approach 120 min (approx. unfinished)
1965 Naomis A Dream of Loveliness 4 min
1966 Airshift 4 min
1967 Soft Fall 12 min
1969 Tom, Tom, The Piper’s Son 115 min (Rewired in 1971)
1969 Nissian Ariana Window, 21 min
1972 Posthumorous Works: Jester (For Analysis Projector 3-D)
1973 Excerpts From The Russian Revolution 20 min (3D)
1975 Urban Passents: An Essay In Yiddish Structuralism 45 min (with Stella Weiss)
Ken Jacobs (24 born, shadow cinema work)
1975 A Man’s Home It Has Cables: The European Theater Of Operation/Urban Passents, 130 min
1975 The Impossible: Chapter One, Southwark Fair, 90 min (3-D Performance with 2 Analytics Projectors)

Ken Jacob’s film, Tom, Tom, The Piper’s Son, is with Verton’s Man with a Movie Camera, one of the two great works of a reflective cinema whose primary subject is an aesthetic definition of the nature of the medium. Jacobs himself has called it a ‘didactic film.’ It deals with several major critical areas: with representation, narrative and abstraction, with the illusion involved in the film-viewing experience, with the possible ways of handling space and time, with structure and with perception. It is, as well, a work of radical transformation: a primitive work from the earliest period of film history is transformed into a highly innovative and modernist in character, constantly pleasurable to the eye and, at the same time, a sophisticated exercise in film and art criticism.

Jacobs, then, has taken an early American film called Tom, Tom, The Piper’s Son a rendering of the nursery rhyme, and recreated it. He first presents the original film as it was made in 1905 (probably by Billy Bitzer, Griffith’s great cameraman). Then, for 70 minutes, by photographing the original film while it is being projected, Jacobs performs an exhaustive analysis of it. Finally, he shows the original film in its entirety once again, adding a brief coda of his own. The original film is 10 minutes in length and consists of eight tableaux or shots showing a crowd in pursuit of Tom and a stolen pig. Eight tableaux are photographed in a basically theatrical way — in long shot, with the camera placed front row centre. The space in each of the shots is hollow and is articulated in a very simple manner — with some use of groups and with some suggestion of nested space painted on the sets. There is also very little rhythmic articulation. Events either happen all at once and are difficult to distinguish or else are strung out at great length one after another.

The film has great charm, largely because there is a decorative quality to the painted sets and the costumes (supposedly modelled after Hogarth prints) and also because there is so much close attention to detail. In the opening tableau, at the top, there are acrobats, jugglers, many revellers, a fight between solicitors, as well as the stealing of a pig — a tableau crammed with simultaneous activities.

The subsequent tableaux follow the chase with each of the ten or twelve chases individually jumping into bays throughout, climbing out of chimneys, climbing over or through fences, all ending in a barnyard filled with dogs, geese, and buttery birds.

From this, Jacobs has made a radically different film. Using the basic procedure of photographing the original film from a screen upon which it is being projected, he employs just about every strategy known to film. He photographs varied portions of the original shots, sometimes showing a shot in almost its full size, sometimes blowing up a very minute part of the original. He moves his camera along, up, down, into, and away from the original, in which there is no camera movement at all. He uses the freeze frame technique, stopping the original on any one frame for any period of time, then going back into motion.

He uses slow motion, reverse motion, superimpositions, masks, and wipes. He adds black and clear leader, creates a flicker effect, and leaves in the circles and flares that appear at the end of reels of film. He photographs the film strip as such and sets his screens within a larger spatial context, creating a kind of
screen-within-a-screen. He does shadow play with fingers against the screen while the film is being projected, and even photographs the light bulb of the projector. He also adds two colour sequences which do not appear in the original film. All of these strategies are employed both individually and in the most extraordinarily complex combinations. Jacobs sets up an extremely rich vocabulary and proceeds to employ it exhaustively, using the basic montage principle (the possibility of combining in any way) to create a completely new work.

In doing all of this, Jacobs is essentially involved in an analysis, a contemplation, of the original work. 'I've cut into the film's monumental homogeneity (eight statically photographed sets . . .) with some sense of trespass, cropped and gives a Griffith emphasis to parts originally submerged in the whole - but this is a didactic film: it was necessary to do so in order to begin to show how much was there.' Very much attracted to the original film, he decided to show what interested him in it. His film is a revelation of the original, achieved by analyzing, fragmenting, and abstracting the original and reconstituting it as a new film. In revealing what interested him in the original, Jacobs has revealed what interests him in film. And in so doing, he has created a discourse on the nature of film...

Lois Mendelson and Bill Simon, 'Tom, Tom, The Piper's Son'. Arthaus, 1971

Kurt Kren
1929 Born in Vienna
Lives in Munich and Vermont
1957 157 Versuch mit synthetischem Ton 2 min
1960 24088 Klänge aus dem Sondertest 4 min
1960 3600 Bäume im Herbst 5 min
1961 461 Mauern, Post, Neg und Weg 6 min
1962 562 Sonnenaufgang, Absfotl etc. 5 min
1964 664 Mama und Papa (Material - Aktion Muehl) 4 min
1964 764 Leda und der Schwarm (Material - Aktion Muehl) 3 min
1964 864 Ana Aktion Brau 3 min
1964 964 O Tonnenbaum (Material - Aktion Muehl) 5 min
1965 865 Selbstversammung Aktion Brau 5 min
1965 865 Silber Aktion Brau 5 min
1965 1165 Bild Helga Philip 3 min
1966 1266 Cox Alpha (Material - Aktion Muehl) 10 min
1967 1367 Ste Béa, 6 min
1967 14 Kura (unfinished)
1967 1567 TV 5 min
1967 1667 20 September 10 min
1968 1768 Gris Rot 3 min
1968 1868 Venus intake 6 sec
1968 1968 Weiss, Schwarz (expanded movie)
1968 2068 Schacht 3 min
1968 2168 Danke (conception)
1968 2268 Happy '74 (in Vienna)
1969 2369 Underground Explosion 6 min
1970 2470 Weizem 3 min
1971 2571 Winter und Klemmer verlassen die Welt (action)
1971 2671 Zeichenfilm, Baltac oder das Auge Gotti 1 min
1972 2772 Auf der Plauerinsel 1 min
1972 2877 Zeitungszeitung 1 min
1973 2973 Ready Made - 3 Brief von Mars oder der Toter der Medien 12 min
1973 3073 Co-Op Cinema Amsterdam C 4 min
1975 3175 Asyl 9 min
1976 3276 An W B B 7 min
1976 3376 Keine Donau 5 min
1976 3476 Tschibo 2 min
1977 3577 Dogumenta (slide and film loop)
1978 3678 Rüsch 3 min
1978 3787 Tree again 4 min

Since Kren's 1st 16mm film, 1/57 Versuch mit synthetischem Ton (all his film titles are methodologically pre-fixed by the number of the work in complete chronology, followed by the year of realization) there have been three distinct phases in his work. The first extends from 1957 to 1962 during which he completed five films; the second from 1964 to 1967 when he made eight (6/64 to 1/67), all based around the work of other artists, particularly the actions of Otto Muehl and Gunter Brus, through 1/65 based on an Op-art picture by Helga Philip; and the third is from 1967 to the present, continuing individual film work (1/67 to 31/75), but it has extended to include the production of drawings, collages, prints and in particular five limited edition boxes, each containing an 8mm copy of one of his films, facsimiles of the preparatory diagrams, documentation and photographs which are sold in the same way as prints...

The psychological approach is inevitable for many of Kren's films, but almost all his work raises philosophical questions about the relationship between experience and structure. Almost at, including the middle period, have used systems to govern either the editing or shooting. In most cases this has taken the form of preparatory diagrams and graphs drawn with mathematical precision, indicating the various correlations of shots and their durations. Whatever the general implications of using mathematical systems for ordering experience, considering how, with constant proportion speed, the single frame unit of cinematography provides a simple link between duration and number, is film, system becomes peculiarly apt. In his attempts to order experience through film, Kren has made this number-duration correlation basic, discovering for it a variety of functions and potentialities...

In 15/67 TV the filmed sequences are largely separated from their representational function, to become the subject of subsequent systematization where their relationships within the film are much more significant than the procedural relationship of their origin. The broad effect and historical significance of this film lies in changing the emphasis of structural activity away from the film-maker's ordering of his filmic subject to that of the spectator's structuring of the filmic presentation. The film's viewer must engage in a speculative, reflexive structuring of the film as it proceeds. There are of course a number of other undeniable levels of content in the work. These include the subjective choice of situation and image by the film-maker, his attitude to the act of filming, and the similarly subjective choice of mathematical system's application to the film. But by far the most significant level of content in TV is the viewer's awareness of his own behaviour in structuring the experience of the film itself. This is not simply an attempt to elucidate the film-maker's system, but an experience of the various phases, stages and strategies which are encountered in the act of attempting to structure the events of the film.


Note on Asyl:
A camera with an anti-glare lens hood is placed in front of a window on a secure tripod. The view outwards from this point is filmed on 21 consecutive days.

Every day the same three rolls of film (a total of 90 metres) are shot through a different mask. Each of the 21 black cardboard masks has four or five rectangular apertures. All the mask apertures put together yield the whole picture. On each run-through (one day), one mask is not fully inerted, but the shutter is totally closed from time to time. This changing pattern is different for each run-through. So, for example, on the first day only the 1/21 metre mask is filmed through, then the shutter is closed up to 28 metres, then again from 29-42 the mask is filmed through etc; after 71-90 metres the shutter remains closed. On the other hand, on the thirteenth run-through the shutter is not opened until 20 metres, and the alternation of masks and closed shutter is correspondingly deferred. The picture is thus constantly changing. From time to time only parts of the film are illuminated, whilst others remain dark. The whole picture composed of the apertures of all the masks appears for the first time at 21 metres. Towards the end of the film the unmanipulated, real picture (not filmed through masks) is briefly shown once. As the weather during the shooting period (March/April) was very changeable, the picture shows varying degrees of brightness. At certain times snow is lying. The transitions within a landscape in a period of 21 days are here captured simultaneously in one static picture. Some movement is produced through the changing of the masks but this is not perceived as a passage of time directed to some objective.

Kurt Kren

Peter Kubelka
1934 Born in Tafkircher, Austria
Lives in Vienna
1954-55 Mosaik im Vertrauen 16 min (35mm)
1957 Aktier 11 min (35mm)
1958 Schwechater 1 min (16mm)
1959-66 Analysed Painter 65min (35mm)
1960 Die Unsere Afikarie 13 min
1971 Die Unsere Afikarie 13 min
1973 Monument for the Old World (in progress)
1978 Body Language (in progress)
I am very much interested in real communication, and for that you must have a
precision which you cannot achieve in a little talk or in spontaneous
communication. Therefore I always want my talks separated from the films; the
talk may be very erroneous — it is, in fact, an after interpretation of my work
by myself — and it would be more erroneous than an interpretation by someone
else.
I am out to give joy. I see the position of the contemporary artist very close to
the old conception of what an artist was. This means that the artist goes to his
public, he works very hard, then the public comes and receives what he gives,
and they love him for it. There are so many people now (or there always
were) who ask the artist to produce political work: there is this great
misunderstanding, because there is no difference between an artist and a
political worker. The difference is just in time: the politicians want an immediate
implementation of their ideas, they work for today or tomorrow . . . the artists
are also politicians, but they work for maybe the next 1000 years, the
implementation is perhaps very far away. They must really be left to their own
responsibility . . .
All the aesthetics of cinema start with the first principle that 'film is motion'.
Through my work, I realised that film is not motion, because nothing ever
moves on the screen. A film is a projection of still frames. You can create the
illusion of motion but that is not necessarily 'cinema' in its essence. One projects
a series of light impulses on the screen, and one can choose, by the stencil put
before the light source, the form of the light on the screen. This is the
achievement of Schwerther . . . I compared it to my atom bomb because for me
it was the most powerful minute on the screen that was possible — but what are
the images? Beer-drinking people: the banal thing, there is no composition, it
is nothing. But the fact that I found out that film is not motion, and broke up this
'atom' which had always been thought of as the smallest single unit in film
(movement was always movement: no-one ever broke it up), led to the
explosion — you get this extreme possibility of power on the screen . . .
Articulation in film takes place between one frame and the next, between one
sound and the next and between sound and the synchronous image. Unsere
Afrikanrise has all of these articulations — it is the most complex of films —
it speaks continuously between image and sound. In this respect, it is like Arnulf
Rainer, the black and white film: this is also constructed practically frame by
frame, though it doesn’t look so . . . The difficulty was that on the one hand I
wanted to control it as much as the Rainer film (i.e. not lose one possibility of a
frame/sound event) and on the other I wanted it to be very real, to respect the
reality of what I had filmed.

Excerpts from interview with Mike Wallington, Tony Rayns and John Du Cane.
Cinema, No 9 1970

1949 Born
Lives in San Francisco
1961 Two Pieces For The Precarious Life
1961 Faulty Pronoun Reference, Company, And Punctuation of The Restrictive
Or Non-restrictive Element
1961 A Stringent Prediction At The Early Hermaphroditic Stage
1963 Fleming Falcon 7 min
1963 Richard Craft at the Playboy Club
1963-65 Studies And Sketches, 17 min
1965 Film In Which There Appear Edge Lettering, Dirt Particles Sprocket Holes,
e.a. 4 min
1967 Diplomatology Or Bardo Follies 20 min
1968 The Film That Rises To The Surface Of Clarified Butter 9½ min

1969 Institutional Quality 5 min
1970 Remedial Reading Comprehension 5 min
1971-72 What’s Wrong With This Picture 7 min
1973 Thank you, Jesus, For The Eternal Present 5½ min
1974 A film Of Their 1973 Spring Tour Commissioned
By Christian World Liberation Front of Berkeley California
1974-75 Wide Angle Saxon 22 min
1975 No Sir, Orion 3 min
1975 New Improved Institutional Quality: In The Environment of Liquids And
Nails A Parasitic Vowel Sometimes Develops 10 min
1977 On The Marriage Broker Joke As Cited By Sigmund Freud In Wir And Its
Relation To The Unconscious or Can The Avant-Garde Artist Be Whored

L: The original image in Film In Which There Appear . . . is used by the Kodak
Company to test colour reproduction. We went through many different
operations of cutting, re-joining, and printing until it got the way it is now with sprocket
holes printed in the middle. When it was printed into the final version I told the
lab to leave the dirt on because the dirt was quite interesting. Somehow it
seemed a part of the image. It now exists in two versions; one of which is, I
believe, about four or five minutes long and the other is twenty minutes. There
is no difference except that the twenty minute version is on two reels and one is
reversed so that the juxtaposition forms a third image in the middle when they
are projected adjacent. This film is experienced as a composition of images,
letters and other elements which is more or less constant. Although it is never
exactly the same from frame to frame, the changes are so subtle compared to
the changes that normally take place within a film that people tend to see no
change (aside from the blurring eye). In other words, it is on a completely
different level of expectation. Ideally it would fit into a situation where the
spectator is ambulatory. The film would be a kind of mural that would be
projected continually in a room and people would be going about their business
in the room. However it is also quite interesting in an ordinary theatrical
situation.

P: Is the duration of both versions arbitrary?

L: Yes.

P. Adams Sitney interview with George Landow, Film Culture No 47, Summer
1969

George Landow

1949 Born
Lives in San Francisco
1961 Two Pieces For The Precarious Life
1961 Faulty Pronoun Reference, Company, And Punctuation of The Restrictive
Or Non-restrictive Element
1961 A Stringent Prediction At The Early Hermaphroditic Stage
1963 Fleming Falcon 7 min
1963 Richard Craft at the Playboy Club
1963-65 Studies And Sketches, 17 min
1965 Film In Which There Appear Edge Lettering, Dirt Particles Sprocket Holes,
e.a. 4 min
1967 Diplomatology Or Bardo Follies 20 min
1968 The Film That Rises To The Surface Of Clarified Butter 9½ min

Mike Leggett

1945 Born in Surrey
Lives in Exeter
1963 The Lark
1963 From A Sleep
1966 Crash
The intention of *Sheepman* and *The Sheared* emerges from both personal concerns in filmmaking evident in earlier films, Shepherd's Bush and Tender Kisses and the larger context of independent film-making activity in Europe in general and England in particular. The filmmaker's practical, theoretical, and critical work which has centred on the London film-makers' Co-op during the last ten years has formed the majority of the context for my own pursuit and researches. This broadly speaking, has been motivated by a critique of dominant film as manifest in the cinema and on television. Thus this film concentrates on an attempt to interrogate the medium and its various tools and machines (differently in each part though with some overlapping) and more particularly its handling of that interrogation by the film-maker: decision making as evidence, as intent.

Sheepman and *The Sheared* takes Landscape as Object in front of the film-maker and the medium; it is not about rural life or the mythology of The Land, neither does it seek to present a personal impression, visual or otherwise, of the state of residing in a rural district of the South-west of England. The conscience of flora, fauna, and human-made object, processes and activities, within the film is in no way paramount of an inspection of the total process by which an observation of this kind is made possible—specific conditions to do with both nature (phenomena of the material world) and human activity with it are recorded but such that the relationship is essentially one of coincidence; pre-determined approach guides (for example) the camera's function, though its operation at the time of shooting is subject to the observation and reaction of its operator (Part 5). The subsequent control of assembly and printing process is also important; besides being able to make projection prints, more important are its particular functions evident in the duplication and controlled superimposition of material (Parts 3 and 6).

Mike Leggett (Excerpted from programme note used for Perspectives On British Avant-Garde Film, Hayward Gallery, 1977)

**Maurice Lemaitre**

see *Lettrism*

**Malcolm Le Grice**

1940 Born in Plymouth
1962 Lives in London

1966 *China Tea*
1966 *Castle One, China Tea* 20 min
1967 *Little Dog For Roger* 12 min (2 screen)
1967 *Yes, No, Maybe, Maybe Not* 8 min (2 screen)
1967-68 *Talk 20* min
1967-68 *Blind White Duration* 12 min
1968 *Castle 2* 35 min
1968 *Gras* 68
1968 *Wurf* 68
1969 *Spoir The Microut* 10 min
1970 *Your Lips* 5 min (Computer-film)
1970 *Lucky Pigs* 4 min
1970 *Region Of The Vampire* 14 min (3 screen projection)
1970 *Bermuda* 6 min
1971 *Love Story 1* (shadow performance)
1971 *Horror Film* (performance)
1971 *Love Story 2* 12 min
1971 *1919 10 min* (3 screen)
1971 *Your Lips 2* 2 min
1971 *Love Story 3* 10 min (2 screen)
1972 *Horror Film* 30 min (3D-shadow performance)
1972 *Newport 1* 14 min
1972 *Whitchurch Down* 10 min (3 screen projection)
1972 *Threshold* 10 min
1972 *Blue Field Duration* 14 min
1972 *Pre-production* (performance)
1973 *White Field Duration* 20 min (2 screen)
1973 *Maurice and Joseph's Coat* 12 min (4-6 screen)
1973 *Four-Wall Duration* (screen installation)
1973 *Gross Fug* (3+ screen installation)
1973 *After Leonardo* 25 min (6 screen performance)
1973 *Don't Say* 12 min
1973 *Principles Of Cinematography After Leslie J. Wheeler* 20 min (performance)
1974 *Screen-Entrace-Exit* (3 screen performance)
1974 *After Lumière - L'Arroseur Arrose* 16 min

1975 *After Manet, After Giorgione - Le Dejeuner sur l’Herbe or Fête Champêtre* 60 min (4 screen)
1976-77 *Art Works 1: Academic Still Life* (Cézanne) 20 min
1976-77 *Art Works 2: Time and Motion Study* 20 min
1977 *Blackbird Descending* (Tendrils Alignment) 150 min
1978 *Emily Third Party Speculation* 60 min

Since my earliest primitive film *Castle 1* produced is a primitive and uninitiated situation, my film work has passed through three interconnected phases. These have not been chronologically tidy, nor strictly the results of a single theoretical programme, but at the same time there have been consistent threads of conscious intent, distinguishing avant-garde film from much of the commercial narrative illusionist cinema. The three phases of the work broadly represent certain stages in the development of this intent. The earliest phase is that which concentrates on the material aspect of the medium as the basis of 'content', identifying celluloid, scratch, emulsion surface, sprockets, etc. and including them within the image of the film. This phase made use of various film-printing devices to visually transform small numbers of relatively short sequences of film and, as in *Little Dog For Roger, Yes, No, Maybe, Maybe Not and Berlin Horse*, often concentrated on the structure.

The next phase more consciously concentrated on establishing the screen, the screening time and space, the projection lamp and its integral casting shadows, and as the primary reality of film. This intent had been implicit even in the earliest film (through the device of the light bulb actually flashing in the cinema), and periods of blank white screen is many of the other films. Through almost all the films from the start involve double-projection, usually as a method of comparing differences in treatment of the same material, in the second phase, multi-projection was combined with performance, as a *Horror Film 1*, or with deliberate movement and forming of projectors, usually containing only loops of changing colour frames, as in *Marrs and Joseph's Coat*, so as to concentrate the question of materiality into the actual time/space of the projection event. This phase sought to limit or eliminate all aspects of the filmic activity not actually present within the projection event. This was not a reductionist, essentialist, purist direction, as was often interpreted, but a method of establishing the primary of the projection situation as the only material period of access available to the work by the viewer.

Pre-production, blank screen reading performance, indicated that however much the projection event was isolated from pre-filmic, or at least post-filmic, event these were still factors which must be considered deliberately in the work.

The next phase, which includes the most recent work, begins with *White Field Duration* and *After Leonardo* and is concerned with handling the pre-filmic (and to a lesser extent, the post-filmic) factors from the status of the primary of the projection event itself. From *White Field Duration* there has been a deliberate attempt to reintegrate the camera 'act' into the film procedure as a whole, in such a way that factors of reproduction, documentation, and the representation of 'incident' are dealt with as a problematic, rather than unquestioningly utilised as illusionist devices. The initial step in this process involved re-filming out of the blank screen and scratched celluloid of *White Field Duration* or the *Mona Lisa reproduction actually taped to the blank screen during the presentation of the film. The two most recent works, *After Lumière*... and *After Manet*... are seen as a continuation from this stance, but risking a complex post-filmic situation, concentrating on documentation, illusion, and the iterative flexible behaviour of the film-viewing process.

**Lettresim/Situationism**

(slected *Lettrist* films)

- *Isidore Isou*
  - 1951 *Traité de Bave et d'Eternité*
  - *Gil J. Wolman*
  - 1954 *L'Aut-Concepte*

- **Maurice Lemaitre**
  - 1951 *Le Film est Deja Commence?*
  - 1952 *Le Cinématographe Parisien, une Aventure d'Amateur, 1895-1918*
  - 1958 *Friche Films*
  - 1957 *Toujours L'Avant-Garde de L'Avant-Garde jusqu'au Paradis Au-dela*
  - 1957 *Cine Poesia Muñequa*
  - 1970 *50 Boni Films*

- **Guy-Emnest Debord**
  - 1952 *Hurlerons en Favour de Sade*
  - 1956 *Critique de la Séparation*
  - 1958 *La Société du Spectacle*
  - 1978 *In Gram Imus Nocte and Consumutum Igni*

- *'Lettrist' and 'Situationist' Films*

The Lettrist Movement was founded in Paris in the late 1940s as a rediscovery of the founding spirit of Dadaism post-war from that of the commercial narrative illusionist cinema. The two factions, centred on Isidore Isou, concerned itself chiefly with aesthetics and artistic work; another, which came to centre on Guy-Emnest Debord, was more involved with the politics and mood of the new moment, culture, religion and politics. The two factions separated in the late summer of 1953: the more radical group had engineered a typical provocation by reducing
a Charles Chaplin press-conference to chaos, and found itself denounced to the press by Foucault. Debord’s faction moved to Brussels, and started calling itself the Lettrist International. This group subsequently evolved into the Situationist International, and began publishing the glossy magazine of the same name in Paris in 1958. Situationist thought the concepts of ‘spectacle’ and ‘situation’; ‘spectacle’ referred to ‘the society of the spectacle’ (= consumer capitalism and its politics and culture, made up of the public (recipients) and situation’ to the group’s own wish to redefine urban environments as playgrounds in time and space for the ‘liberated’ psychogeographer. The group’s stormy history (marked by schisms, resignations and numerous exclusions) came to an effective end in 1969, in the wake of the debacle of May 1968.

Film-making was a peripheral activity for the Lettrists and even more for the Situationists. Isolated films were made under the loose aegis of Lettrism in the early ‘50s by Maurice Lemaitre, Isidore Isou, Gil J. Wolman, Sarane Alexandre and Guy Debord; of them, the only film-makers still active are Lemaitre and Debord. There is, however, a considerable body of Lettrist-theoretical writing on the cinema (most of it published in the form of duplicated brochures), which argues, in the main, against representation and for a ‘deconstruction’ of the various elements of film reality.

The Lettrist films essayed numerous aesthetic and anti-aesthetic strategies that later were taken up by the American underground and by structural film-makers. Lemaitre’s Le Film est déja commencé? of 1953 makes the projection space and the viewer’s reactions integral parts of the film itself. Lemaitre also reduced images to pure black and pure white, painted and stretched directly on the surface of the film, and images of less than one second in duration and created ruptures between sound and image. Debord’s notorious feature Hémences en faveur de Sade of 1952 scatters 20 minutes of off-screen ‘dialogue’ (mostly borrowed phrases, spoken in monotonous by five voices) through some 90 minutes of screen-time; the screen is white when voices are heard and black the rest of the time; the film ends with 24 minutes of uninterrupted silence and darkness.

Tony Rayns

Giovanni Martedi
Lives in Paris

1967 Exudes Esthetique et Animation
1967 Film Inacheved
1973 Cinematographe
1973 Film Sans Camera No 1
1973 Film Sans Camera No 2
1974 Film Sans Camera TW
1974 Film Sans Camera LTR
1974 Film Sans Camera ST
1975 Film Sans Camera SL
1975 Film Sans Camera A2
1975 Film Sans Camera St Rouge
1975 Film Sans Camera SQ/MM
1975 Film Sans Camera TQ
1975 Film Sans Camera AZ
1975 Film Sans Camera ST
1975 Film Inexistant Pyramidal No 1
1975 Film Sans Camera 400 pieds
1975 F.S.C. Corps Perdu
1975 QOCH INTOY sxIA8
1975 F.S.C. 'ST 3333
1976 Bienvenue Elisabeth
1976 Film Sans Camera MM
1976 A Nadaile-Prélade-Aracasque-Ouevriere
1976 Anatolique-Fessata
1976 F.S.C. BD et DB (Installation)
1976 Film Inexistants Janus
1976 F.S.C. Alpha
1976 F.S.C. Pop (Installation)
1976 F.S.C. Liquide
1977 F.S.C. ST
1978 F.S.C. L.S.D.

Can one describe a 'poor' cinema, even in its experimental form? And if one can, 'poor' in relation to what, bearing in mind the difficulty of describing the genre, its inconsistency, its very poverty? This cinematographic object is, in principle, made of 120 metres of base from which the emulsion has been removed (costing about 0.20 francs a metre) as well as various self-adhesive products (costing between 10 and 20 francs, and found ready in shops). The whole thing — the material plus the super-impositions — produces a simple image, capable of being shown through a normal 16mm projector. The use of a new kind of 'audiovisual' image, warped by the materials, the extrapolation of the traditional face which has become part of cinematic anthroposphere, the direct realisation of cinematic forces, require the revision of elementary ideas about the cinema and suggests a new realisation of freedoms which are indispensable to the understanding of the phenomena of perception.

Rapid technological development has led to the development of an almost sacred game, involving technological language which has given rise to oligarchies of technocrats who are separated from those who are ignorant of highly technological language.

The creation of a 'poor' cinema re-opens the possibility of participation to everyone.

Giovanni Martedi

Anthony McCall

1946 Born in London
Lives in New York

1972 Landscape for Fire 7 min
1973 ARCD 30 min
1973 Line describing a Cone 30 min
1974 Conical Solid 10 min
1974 Cone of Variable Volume 10 min
1974 Partial Cone 12 min
1974 Fire Cycle 13 hours
1974 Long Film for Four Projectors 6 hours
1975 Four projected Movements in 75 min cycles
1975 Long Film for Ambient Light (Installation)
1975 Zyklus
1978 Argument, 90 min (with Andrew Tyn dall)

Long Film for Ambient Light, sits deliberately on a threshold between being considered a work of movement and being considered a static condition.

Formalist criticism has continued to maintain a stern, emphatic distinction between these two states, a division that I consider absurd. Everything that occurs, inclusive of the (electro-chemical) process of thinking, occurs in time. It is cultural habit that persuades us otherwise — perhaps a function of intelligence, that breaks up perceptions of continuous time into ‘moments’ in order to analyse them. Our insistence upon static, absolute lump of experience, as opposed to continuous, overlapping, multiple durations, shows a warped epistemology, albeit a convenient one.

Art that does not show change within our time-spans of attending to it we tend to regard as ‘event’. Art that outlives us we tend to regard as ‘eternal’. What is at issue is that we ourselves are the division that cuts across what is essentially a sliding scale of time-bases. A piece of paper on the wall is as much a duration as the projection of a film. Its only difference is in its immediate relationship to our perceptions. A static thing, in terms of impulses to the brain, is a repetitive event. Whether the locus for consideration is ‘static’ or ‘moving’, we deal with time-spans of attention, the engagement of cognition and memory within the context of art behaviour. Neither objects nor events are for the most part accessible. They are rarely ‘on show’. Since they are intentional, meaningful signs, this is of no consequence: once an idea is established ‘in mind’, it has entered the circuit of (art) ideas, and it won’t go away, except through debate within the circuit. The apprehension of any artwork, static or moving, is a fleeting moment, as are all experiences. It is their residual nature that is important. One of the norms of film presentation has been ‘limited, group access’. It has been obscene to be present at a particular time to see the work, thus forming the social group, ‘audience’. This group has specific behavioural characteristics . . .


Marie Menken

1910 Born in New York City
1971 Died in New York City

(selected filmography)
1945 Visual Variations on Noguchi 7 min
1957 Hairy, hairy! 4 min
1959 Dwilight 3½ min
1961-63 Mood Mondrian 7 min
1963-65 Notebooks
1963 Go Go Go 12 min
1965 Andy Warhol

Menken was introduced to avant garde film when she worked as Assistant Curator at the Guggenheim Foundation in the early ‘40s and was then inspired to make an animated short of her own by her friendship with Norman McLaren. She and her husband Willard Maas founded the loosely organized Graphon Group and made films with various of its members from 1943. The group included, at different times, Ben More, Stan Brakhage, Fred Kiesler, Robert Flaherty, and Gregory Markopoulos amongst others, and its films ranged from psychodramas and whimsical animations to elaborate ‘mythic’ extravaganzas.
Menken resumed 'solo' film-making in the late 50s, and continued making short films through the 60s, her work is predominantly playful in tone and informal in subject, although her grasp of form and structure is consistently tight. In the mid-60s, she acted in at least four films for Andy Warhol. She and Warhol were as much 'elders' of the New York underground as Jonas Mekas, and provided a great deal of material and spiritual support for young film-makers. She died in 1971.

The concern with form in all her work is what distinguishes Menken as a precursor of structural cinema. Her ideas extended from filming essentially static subjects (like Noguchi's sculptures in Visual Variations on Noguchi) in a virtuosically freewheeling way to using a completely static frame to formulate a visual metaphor (like the animation of objects over backgrounds of Dwight Ripley paintings in Dwayne) or a poetic joke (like the timelapse photography in Go Go Go and Andy Warhol). Her Notebook comprises a suite of fragmentary films, some dating from the late '40s, and offers a concise summary of her approaches. Some of her formal inventions manifestly influenced the Breughel of Anticipation of the Night.

Tony Rayns

Werner Neke

1944 Born in Erfurt
Lives in Mulheim-Ruhr

1965 Tom Doyle and Eva Hesse 30 min (8mm)
1966 Februar 15 min
1966 Start 10 min
1966 Artikel 10 min
1967 Tage 1 min
1967 Schnitte für ARARA 14 min
1967 Schwarzweissebrauhausshwarchweissuhrenröstereiweiss oder put putt 10 min
1967 Juni-Juni 10 min
1967 Der Seminar 30 min
1967 Guertig Nr. 1 12 min
1967 Guertig Nr. 2 13 min
1967 Ach wie gut dass niemand weiβ 7 min
1967 Körper 10 min
1967 Operation 11min
1965-68 Glossarium Pistomieso 120 min
1968 Via-vo-via 14 min
1968 Gruppenfilm 14 min
1968 Zirkelhege 11 min
1968 Mama das fällt ein Mond 10 min (35mm)
1968 Tatszes Kampf mit dem Gorill 12 min
1968 Makkah 14 min
1969 Anek 60 min
1969 Schnack Shuerek 10 min
1969 Nacht 76 min
1970 Abhildonen 35 min
1971 Spaceship 42 min
1972 Auflösung 16 min
1972 Two-Women 1/4 90 min
1973 Anthozoön 16 min
1973 Divus 60 min
1974 Makimoto 38 min
1974 Amalgam 1-4 72 min
1974 Phaschoscion
1976 Falsum 36 min
1976-77 Lagado 85 min (35mm)

For Neke these are the principles of filmic organization: real environment, mostly landscapes, is transformed into artificial images by means of complicated camera and montage techniques. This phase in his work started about 1971 with his film Spaceship. It consists of single-frame takes, which describe extreme spatial movements of the camera. The technique of dissection and re-combination of image material by single-frame, multi-exposures, space and time intervals during the shooting of the same area, are all variously applied in Two-Men, Divan and Makimoto.

The range of expression in his work can be characterized by the extremes of the lightshades in Spaceship and the smooth floating of contours in Sun-a-mal which is a part of Divan. A certain insecurity in his concept becomes apparent in that in each film title he mentions the subject that is unrecognisable because of their shadowy appearance, and fulfill no obvious function.

These 'actors' are usually Neke himself, his wife, child and friends. He tries to bring personal experience into the film by naming the actors and thus recalling the actual events of the shooting. The formal aspect seems to be insufficient, and he therefore tries to enrich it by emotional values which do not lie in the film but are referred to it from outside. In his last film, Makimoto 1974, he shows the unfolding of a continuously varying expression of the representation of a landscape. He also works here with multi-exposures and camera pans. The space of the image widens with permanently increasing movement, which in the end leads to the dissolution of the landscape image into pure light motion. (.) He composes the film from single images, which create the impression of continuous motion only in the perception of the viewer. In his theoretical concept the single-frame structure of the film has a central position. The basic element for him is the 'Kine', a unity of two consecutive frames. The collision and interplay of the frames evoke a new visual construct in perception, which does not exist on the film strip. Especially important is the 'third image', the Kine, the image which develops in the spectator's head by the collision of two single images. For each development of the film language can be reduced to the possible differences between two frames. Only over new structures of space and time differences inside the Kine groups, will the visual grammar be extended.

Neke sees the means for the structural extension of image language in 'polyvalency', 'image clusters' and 'camera movement which is determined by voice co-ordinates'. This extended language of images is for him a way of starting to 'change the minds (thinking) of the recipients, by changes is the medium'.


Dore O

1967 Jam Jam 10 min
1968 Alaska 18 min
1969 Lawade 42 min
1970-71 Kalandon 45 min
1972 Blonde Barbaree 23 min
1974 Kaskara 20 min

Dore O takes the original material for her films from her private domain, which includes far journeys through strange landscapes, for example in Iceland. Her films are not built on mathematical principles of structure; she creates a flow of image — multi-exposed landscapes and strange cut-in-image metaphors — as a poetic expression of her feelings. She works in the tradition of Breughel in that she presents reality through the interpretation of her own emotions. Just how much she is guided by her feelings is shown in the descriptions of her films, where she tries to express the visual poetry of her films through verbal poetry. Her most clear and beautiful film is surely Kaskara, which is a description of a summer holiday in Sweden, reduced to the continuous changing of the two main motifs: views of a landscape through doors and window. There is a human reference which comes and goes at the same time present and absent. Inside and outside melt. The inside becomes transparent and thus determined by the outside. Landscape exists only as a view through doors and windows. Image units stand in opposition to themselves, assimilate with each other or dissolve in each other. Outside image pressures, broken spaces and time flows, stand unchanged views.

Attention, melting and collision of the elements of the film image, with the aim of forming a sensual topology, are the main formal means of the chosen image language.


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Pat O'Neill

1939 Born in Los Angeles
Trained as a designer, photographer, sculptor
Works as special-effects technician for animated and advertising films
Lives in Los Angeles.

1963 By the Sea 10 min
1966 Bump City 8 min
1966-67 7562 4 min
1968 Screen 3 min
1968 Genesis I 4 min
1969 Genesis II 6 min (with Neon Park, Bruce Lane, Burton Gershfield)
1970 Genesis III 3 min (with Neon Park)
1969-70 Sears 5 4 min (with Chi Chi Straw and Neon Park)
1970 Rows Good 16 min
1971 Easyrow 9 min
1972 Last of the Periminos 6 min
1973 Down Wind 16 min
1974 Sangue Series 18 min
1976 Sidekind's Delta 20 min
1977 Sleeping Dogs (Never Lie) 9 min
1978 Foreground 14 min

Working Method
The most difficult thing to do is to start. All of the past, right up to yesterday, weights down like all of the stones of all the world's museums. Find the gap to begin, against the pervasive possibility of absurd failure. The process of making requires repeated confrontation and interaction with reality. Nature, everything one knows. The original plan of action soon lies buried beneath the strata of accumulated decisions, revisions and random gifts. Every act has multiple consequences, some of which go undiscovered perhaps until a screening years later when one asks why it is that way and not this way. Often parts are removed and set aside, and sometimes these in turn attract extensions, and another beginning has been made. The concerns of the work are cyclical, repeating over and over in new formulations. This usually happens without conscious guidance. Eventually the tracks cross and recross, like those surrounding a wathetole on the desert.

Notes on Two Sweeps
Continuous (loop) projection re-orients motion picture perception in several important ways. This mode of presentation seems to be a very desirable way of overcoming old prejudices about the viewing experience of an audience. First, the removal of the last vestiges of the theatrical setting (stage, rows of seats, schedule of performances) reduces the inevitable inescapable expectations of drama. Motion pictures which are not essentially dramatically often seem curiously unsatisfactory when seen in the confines of a proscenium arch and much more at home on the wall of a working or living space or any other 'neutral' room. Further, the elimination of the Beginning and Ending means that the duration of the experience is to be decided by each member of the audience independently, and not by the filmmaker. This places the work in a situation that is, in general, closer to painting; the viewer is encouraged to stay as long and to watch as intensively as the work seems to warrant. It also means that although there may be a serial form operating within a work, with images replacing images in time, the cause and effect implications of one thing following another are somewhat neutralized. The fact that the screen is active constantly also has an impact on the wall's enclosing space; all the walls take part in the cyclical recurring projection. They receive its reflected light; people come and go; perhaps occasionally interrupting the projector beam and adding a unique event to the experience. We gradually perceive the periodicity of the loop, and its various parameters yield to our inquisition. It is also satisfying to notice the projector there with us in the room, collaborating along with the enclosing walls and the electric current in enabling the experience of the work.

Pat O'Neill

William Raban

1933 Born in Breslau
Lives in Berlin

1972-73 Schleitnhäusel 14 min
1971 The Food of the Unquestionably Innocent 6 min
1972-75 Oh death, how nourishing you are 15 min
1972 Faduccia, faduccia baker's man 20 min
1974 Tomorrow and tomorrow and tomorrow - let them swing! 15 min
1976 Weibliche Rituale 15 min
1978 Her Selbstbewegung des Traumwagens, oder Schein bleibt Schein 12 min

William Raban

Margaret Raspé

1933 Born in Berlin
Lives in Berlin

1979 Clouds of Prehistory 5 min
1971 The Dalits have the unquestionably innocent 6 min
1972-77 Oh death, how nourishing you are 15 min
1972 Faducia, faducia baker's man 20 min
1974 Tomorrow and tomorrow and tomorrow - let them swing! 15 min
1976 Weibliche Rituale 15 min
1978 Her Selbstbewegung des Traumwagens, oder Schein bleibt Schein 12 min

1979 I started to work with film, after a long period with children, garden and housework. I felt, that I could no more record what there was... beyond what I needed, to do a certain task. I had worked only with that in-come, which was directly necessary to function. I was locked in automatic functioning... with the camera-helmet I discovered a second perspective, which I take in as I work... while in the moment of shooting
concentrate on the working process, the film records, where I coincidentally
direct my view through the camera ... the themes came out of an interest in the
minimal transformation processes, in which I participate. I found it in an area
with which I am familiar ... the 'objectivity' of the camera's view can't prevent,
the film being seen from the perspective of different pre-conceptions ... so I
tried to open myself, to be consciously aware of what is going on while I work,
and the door to the unconscious images opened wide.

Richard (formerly John Du Cane)

1949 Born Africa
Living in London

1971 Apollonia 13 min
1971 Reference to What 12 min
1971 Leda 5 min
1972 Cowboys 12 min
1972 Aspects 1 and 2 55 min
1973 Frame 15 min
1972 Factof Freedom
1972 Delicate Transformation 1 min
1972 Pan Film 12 min
1972 Together at Last 12 min
1972 Opposition 6 min
1973 Relative Duration 7 min
1973 Incidence 6 min
1973 Accumulation 7 min
1973 Change 12 min
1973 Variants 15 min
1973 Periods 6 min
1973 Focus Fragments 1 and 2, 5 min
1973 Instant Interval 18 min
1973 Pre-Presentation 15 min
1973 This is the One 8 min
1973 This Two 8 min
1973 Meditation 15 min
1973 Forging 15 min
1973 Stretching 30 min
1973 Distortion 3 min
1974 Sign 90 min
1974 Creatures 80 min
1974 Practice 90 min
1974 Extension 45 min
1974 Relations 45 min
1975 Cross 60 min
1975 Types 18 min
1975 Zoom Lapse 15 min
1978 Emulation c. 40 min

1962 6,000,000 6 min
1962 The Dunkirk 4 min
1963 The Swan Lake 6 min
1964 Sand diggers 4 min
1964 The Suite 5 min (with A. Mikolajczyk)
1965 Kuyavian Circle 2 min (8mm)
1965 Tymon 8 min
1965 Hans Memling 8 min
1970 Collage 8 min (35mm)
1970 Po Cieciekob 8 min (35mm) with T. Junak, R. Messner
1970 The Merger 5 min (35mm) with T. Junak, R. Messner
1971 Test 1 4 min (35mm)
1971 Test II 2 1/2 min (35mm)
1971 The Dynamic Rectangle 4 min (35mm)
1971 Portrait of Tymon Niesiolowski 15 min
1972 Record 4 min (35mm)
1972-73 Exercise 4 min (35mm)
1973 Spatial Compositions by Katarzyna Kobro 11 min (35mm)
1973 I am Going 3 min (35mm)
1973 I am Going 3 min (35mm)
1973 Door-Wind 10 min (35mm) with Ryszard Waiko
1973 Colourful Cartes 6 min (with W. Wasilewski)
1972 Med o-magnetic studio-Tynia Czyczewska 15 min (35mm)
1974 My Film 4 min (35mm)
1975 The Gallery Alive 25 min (35mm)
1976 1 - Intermingled Views - 2 8 min (35mm)
1976 On the Line 10 min
1976 10 Times Strip A-B 12 min

Characterising the development of the philosophy of art, one cannot avoid some
aesthetic attitude towards the history of art itself since it involves a dependency
of some sort — the relationship occurring in the phenomenon of so-called
theory/practice. Since every functioning theory of art is a segment of the
extremely complicated matter of art, no absolutely objective/scientific method
can be applied in the examination of art. It appears that the history of art differs
considerably from that of any other type of human activity — this difference
comes from the specific nature of art.

For instance in the development of science and technology one may witness the
process of the fullest possible realisation of practical aims. In the history of the
development of art one may observe quite the contrary phenomenon —
the absolute exclusion of strictly practical usefulness.

'Practically' in art may only be traced in some kind of reflectiveness that it
offers as the critical commentary on the overall development of human thought.
Development in science occurs through the unmasking of false theories, either
through total rejection or through the redeployment of some elements as
constituent parts of a wider system, for example the common idea which can be
seen to direct the work of Newton, Einstein or Planck.

However, there exists in the development of artistic thought the phenomenon of
an essential point. Those points which are the markers of a constant
evolution, which preserve their value and modernity in relation to
theory/practice.

One can, with full confidence, claim that the evolution of science takes the form
of a rectilinear progression. The craft vectorial relations should remain straight at
least ideally. It is different with art — its characteristics require constant
consciousness, and seemingly inconsequential, changes. Thus art constantly escapes
evaluation, definition, and cannot be determined by outer conditions or
utilitarian aims.

Any person following (so-called) artistic activity poses for himself principles and
conventions and the very process of creating those rules may take on form of
''artistic facts'. Such 'facts' should be based on rational, logical constructions,
while the precision and clarity of such argument belong to the basic elements
which, when combined, create the possibility of revealing (the) art.

Jozef Robakowski, 'On the Matter of Art'.

Dieter Rot

1930 Born in Hannover
Living in Dusseldorf and Reyjavik
1956-57 Dus
1957 Dock 1
1957 Dock II
1957 Pop
1962 Lenter

Rot moved to Switzerland at the age of 13, and studied graphic art at Berne.
After various casual jobs, he moved to Copenhagen in 1955 and while working
as a textile designer there made his first film, a record of light and shadow on
stone steps. He is a prolific graphic artist and producer of 'concrete' texts. Since
1957 he has travelled and lectured extensively throughout Europe and in
America.

Rot's interest in 'visual texts' and in the formal links between images and texts
led him to work with film in equivalent areas. His first significant film, Dot, was
made entirely by puncturing the black celluloid with dots of different shapes and
sizes. The four other films that he made between 1957 and 1962 pursued the
line of attack all by treating the surface of the film directly in some way.

Tony Rayns
Carolee Schneemann

Lives in New York
(selected lithography & performances)
1967 Snow (event)
1967 Night Crawlers (event)
1968 Illinois Central (event)
1968 Fuses (film)
1968-72 Plumbline (film)

Schneemann, born in Fox Chase, Pennsylvania, 12 October 1939. Studied at University of Illinois, Bard College New York, Columbia School of Painting and Sculpture and the New School for Social Research, New York. Initially a painter, she studied in New York in the late 50s where she was impressed by the Allan Kaprow school of happenings. In 1962, she was the first painter invited to create both choreography and 'college environments' for dancers (the Judson Dance Theater). During the 60s, she evolved her Kinetic Theatre: 'My particular development of the Happening, which admits literal dimensionality and varied media in radical juxtaposition. Her performance events always

invite the expanse

and surface

of the screen

for cinema',

and dismiss as a provocative element in its own right (like the Vietnam sit-in [film Vietnam Pukes in the event Snow]) or as a neutral

undercurrent (like the featureless landscape films in the event Illinois Central).

Her central concern is audience involvement, often at a tactile level, and she

sees her performance events as attempts to create a "sensory arena". She has

filmed some of her events, and made two films designed to be seen as films in

their own right. In 1959, she and her then husband James Tenney appeared in

Stan Brakhage's film Cat's Cradle.

Schneemann's Kinetic Theatre pioneered the coherent use of film in a non-cinema context, and was thus an important contributor to the establishment of expanded cinema, defining film as film in relation to other stimuli and other media. Her celebrated film Fuses is a lyrical-romantic rhapsody on heterosexual lovemaking and domesticity, owning a great deal of relationship in its 'treatment' of the surface of the film by scratching and painting.

Paul Sharits

1943 Born in Denver, Colorado

Lives in Buffalo

1965-68 Razor Blades 25 min (2 screen)
1966 Piece Mandala/End War 5 min
1966 Ray Gun Virus 14 min
1966 Word Moses/Raygun 39 3 min
1968 N.O.T.:H.I.N.G. 36 min
1968 TOUCHING 12 min
1968-70 STREAM:S:SECTION:S:SECTION:S:ECTIONED 42 min
1971 Infrasonic Current 8 min
1971 Sound Strip/Film Strip 4 min (screen installation)
1972-76 Analytical Studies I: The Film Frame 30 min
1972-76 Analytical Studies II: Unframed Lines 30 min
1972-73 Axiomat Granularity 20 min
1973-74 Analytical Studies III: Color Frame Passages 30 min
1973-74 Damaged Film Loop The Forgetting of Impressions and Intentions (installation)
1973-74 SYNCHRONO/SOUNDTRACKS 3 screen installation)
1974 Color Sound Frames 20 min
1974 Vertical Contiguity 15 min (2 screen)
1975 Apparent Motion 36 min
1975 Shutter Interface 4 screen installation)
1976 Analytical Studies IV: Blank Colour Frames 19 min
1976 Dream Displacement 6 screen installation)
1976 Epileptic Seizure Comparison 2 screen installation)
1976 Epileptic Seizure Comparison: Single Screen Version 30 min
1976 Tael 4 min
1976-77 Declarative Mode 45 min
1977-78 Episodic Generation 30 min

It is the middle of the year 1975, ten years after I began work on the film Ray
Gun Virus, the first segment of my project of deconstructing cinema from a very
particular frame of reference, a frame which is still not wholly defined. I had
made films prior to 1965 but those works — sketches and several 'imagistic,
haikulike pieces involving action/actresses and rather fragmented narratives —
while critical of 'cinematic illusion', at a sort of Brechtian level, were not
central to the more focussed and intensive analyses of film which characterize
the current project; to emphasise the irrelevancy of the early works, I destroyed
them some years ago. This is not to say that concerns with narrativity were
immediately dispelled with, there is a formalization of narrative structures in
Ray Gun Virus (1966), Piece Mandala (1966), Razor Blades (1965-68),
formalization is not a primary feature of these films in the more radical
'meaning-building' they propose. I do not want to discuss these issues in this
context because many of them have been dealt with elsewhere and because
there is one aspect of my involvement in film which has never been expressed,
by others or by myself, upon which I would now like to make a few
comments. . .

My early 'licker' films — wherein clusters of differentiated single frames of
solid color can appear to almost blend or, each frame insisting upon its
discreteness, can appear to aggressively vibrate — are filled with attempts to
allow vision to function in ways usually particular to hearing. In those films of

1965 to 1968, the matters of 'psychological theme' and perceptual analysis of
filmic information were part of a set which included regard for the way in which
rapidly alternating color frames can generate, in vision, horizontal-temporal
'chords' (as well as the more expected 'melodic lines' and 'tonal centers'). The
fares and laps dissolves of these films function not only as theoretic metaphors of
'motion' but also flow along with and into the more discreetly differentiated
frame sequences, acting as 'active punctuation' for the sentences being visually
ensnared. The sprocket soundtrack of Ray Gun Virus works towards
establishing an accurate representation of technological modularity, framing —
and thereby noting — the ultimate matrix of film's capability for visual
representation (there being one sprocket hole for each frame of image along
the film strip). The even meter of sprocket sound is found mirrored in spoken
word forms in some of my later films. In these word-soundtrack works, linguistic
meaning levels, which form a sort of horizontal commentary to the streams of
visual imagery they accompany, and phonemic sound qualities, which exist in a
vertical-harmonic relationship with the flow of visual pulses, are both equally
operable. Having brought sound-tracks into this discussion, it is a good point
to begin developing my basic thesis by posing a question: can there exist a visual
analogy of that quality found in a complex aural tone, the mixture of a
fundamental tone with its overtones? One can think of paintings which by
various means — resonance between colour shapes, echoing forms, etc. — create
such a sense; Matisse went so far as to explain the curved lines emanating from
around his subject in his painting of 1914, 'Mille Yvonne Lindenbergh', as being
overtonal. But how can one film frame of one solid color possess such a quality?
It cannot. Yet, a series of single frames of different colors, which creates
'lickers', can, depending upon the order and frequency of the tones, suggest such
a quality, but it can only suggest, because to truly simulate the sense of
overtones one must have several visual elements existing within the same
space. This problem intrigued me from the days of my earliest studies with so-called
'lickers', it continued as a concern throughout my work and is still an element of
consideration in my works-in-progress. While it is not a primary, formative
consideration, it is a kind of sub-text operating actively within the larger
propositions I wish to make about cinema. . .

Hearing: Seeing by Paul Sharits
Guy Sherwin

1948 Born in Ipswich, Suffolk
Lives in London
1972 Newspaper 6 min
1972-77 Dot Cycle 12 min
1973-74 Silents Film 14 min
1974 Falling Rider 10 min
1974 At the Academy 5 min
1974 Interval 6 min (2 screen)
1974 Anthology of Grain 13 min
1974 Paper Performance 20 min (performance, slides)
1974-75 Self Portrait 8 min (performance)
1974 Hand-Hold 12 min (performance, super 8)
1975 Configuration 10 min (performance, super 8)
1975 Paper Landscape 10 min (performance, super 8, slides)
1975 Iron 15 min (performance)
1975 Hand round 3-30 min (performance)
1976 Riding Ring 4 min
1976 Coming into Kew 10 min
1976 Short Film Series (continuing series of interchangeable films) 3 min each
1976 Man with Mirror 10 min (performance, super 8)
1976 Film with Window 12 min (performance)
1977 Cross section (2 screen, installation)
1977 Sound Track 9 min
1977 Railings 10 min
1977 Musical Stairs 10 min

My recent work includes the Short Film Series, an evolving and regulatable set of films, each 3 minutes long. Individual films within the series attempt to articulate contradictions of both space and time within one composite image. These contradictions can be expressed as follows:

**Space**
1. Space as illusion. The image depicted and its connotations.
2. Space as material. Made evident by emphasising some aspect of the image-creating process.

**Time**
1. Time as illusion. The time implied beyond the filmed material duration.
2. Time as material. Made evident by means of devices that draw attention to the physical duration of the film.

It is important that the illusionist and material aspects described above are not equal weight, and that they have more than an arbitrary relation to each other. In the more successful films it is unclear whether the image represented has determined the means of representation, or vice versa. The contradictions at work within any one film may be referred onwards to any other film in the series.

Films, like music and other time based arts, lends itself too readily to climactic/cathartic constructions. Although a linear presentation of the Short Film Series is unavoidable, a linear reading is discouraged by deliberately changing the order (and number) of films in successive screenings and by the use of black leader to separate the sections. These devices encourage cross-referencing in what might be seen as a grid format rather than the traditional linear line. An outcome of this is the flexibility of interpretation given to the audience which is addressed not as a group but as individuals, each of whom brings a different personal history to any one screening.

Guy Sherwin. 1979

Harry Smith

1923 Born in Portland, Oregon, into a family of occultists where he was instructed in alchemy
Lives in New York

1939-47 No. 1 5 min
1940-42 No. 2 10 min
1942-47 No. 3 10 min
1950 No. 4 6 min
1950 No. 5 6 min
1951 No. 6 20 min
1951 No. 7 15 min
1954 No. 8 5 min (a longer version later became No. 12)
1954 No. 9 10 min
1956 No. 10 10 min (study for No. 11)
1956 No. 11 4 min
1943-587 No. 12 70 min (also known as Heaven and Earth Magic or The Magic Feature)
1962 No. 13 180 min
1965-66 No. 14 30 min
1965-66 No. 15
1967 No. 16 15 min (known as The Tin Woodman's Dream)

My first film was made by imprinting the cork off an ink bottle and all that sort of thing, as I said before. The second one was made with Come-Clean gun dots, automatic adhesive dots that Dick Foster got for me. It's like a paper dot with gum on the back. The film was painted over with a brush to make it wet, then with a mouth-type spray gun, dye was sprayed onto the film. When that dried the whole film was greased with vaseline. Of course this was in short sections — maybe six feet long sections. My home was six feet long, but I had four down. With a pair of tweezers, the dots were pulled off. That's where those coloured balls drop and that sort of stuff. Being as it was pulled off, it was naturally dry where the dot had been and that part which had been coloured was protected by the vaseline coating at this point. Then colour was sprayed into where the dot had been. After that dried, the whole film was cleaned with carbon tetrachloride.

The next one was made by putting masking tape onto the film and slitting the tape tightly with a razor blade and a ruler, and then picking off all those little squares that are revolving around. I worked off and on that film for about five years pretty consistently; I worked on it every day at least. I may have abandoned it at one point for three months or six months at the most. I'm very puzzled about your fascination to visualize music.

That is an interesting question, isn't it? I don't know. When I was a child, somebody came to school one day and said they'd been to an Indian dance and they saw somebody swinging a stick on the end of a string; so that I thought, Hmmm, I have to see this. I went to that. Then I fell in with the Sainth around Puget Sound for a long time. I sometimes spent three or four months with them during summer vacation or sometimes in the winter. While I was going to high school or junior high school. It all started in grade school. It was an effort to write down dances, I developed certain techniques of transcription. Then I got interested in the designs in relation to the music. That's where it started from. Of course! It was an attempt to write down the unknown Indian life. I made a large number of recordings of that, which are also unfortunately lost. I took portable equipment all over that place long before anyone else did and recorded whole long ceremonies sometimes lasting several days. Diagramming the pictures was so interesting that I then tried to be interested in it myself in relation to music's existence. After that I met Cliff and went to Berkeley. I read a smoking marijuana, naturally little covered balls appeared whenever we played Besie Smith and so forth; whatever it was that I was listening to at that time, I had a really great illumination the first time I heard Dizzy Gillespie play. I had been there very high and I literally saw all kinds of coloured flashes. It was at that point that I realized music could be put to my films. My films had been made before then, but I had always shown them silently. I had been interested in Jungian psychiatry when I was in junior high school. I found some books by Jung in the Bellingham Library. The business about mandalas and so forth got me involved. I would like to say I'm not very interested in Jung any more. It seems very crude, you know.

Incidentally, this whole thing can probably be printed, if you want to print it for me, like some kind of poem. In that way, this constant shifting back and forth can be eliminated.

Later I borrowed a camera from Hy Hirsh. He had a pretty good camera, a Bell and Howell model 70-something, and had seen my films. The San Francisco Museum showed that one of the grime works (4) that preceded Circular Time, and he came up and asked "That's when I asked for a camera. I've never owned a camera; I've usually just borrowed one, then pawned it. That's always an embarrassing scene: trying to explain to the person where his or her camera is. I can remember Frank Stauffacher saying to me, "Now, have you pawned the camera, have you?" He said this jokingly, but it was pawned. Usually, people get their cameras back, eventually. My latest films were made with one that belonged to Sheba Zipper. The Mysterioso film (11) and the long black and white film (12) were shot with her camera, which is now in a pawn shop in Oklahoma City. The main parts of my film in Oklahoma last year were shot on a camera that belonged to Stuart Reed. That camera is in a barber shop in Anadarko, Oklahoma, where Mr. A.'s Wollenskis also is, unfortunately.

Michael Snow

1950 Born in Toronto, Canada
Lives in Toronto
1956 A to Z 4 min
1964 New York Eye and Ear Control 34 min
1965 Short Shave 4 min
1967 Wavelength 45 min
1967 Standard Time 8 min
I'm not scientific. No 'ends,' no 'goals,' no use. 'This vague yearning to codify' is being reacted to only in the action of noticing; 'how one thing leads to another.' I do not have a system, I am a system. There won't be any summing up. Perhaps there will. These observations are in my life with my work. For me to be led to prefer fortuitous personal experience education to searching out 'processed' information: books, other people's work in any medium, asking questions of other people. What's what? Further clarification: In literature 'one thing leads to another,' yes, but what we are discussing is noticing how 'many events lead to many others.'

In relation to events one can only be a participant or a spectator or both. Of course one can also be uninformed (events of which one is unaware take place constantly, if we say that). But is a relationship? Yes. Experience of an event can be anticipatory, actual, and post facto. Or prophetic, intentional, guessed, planned or total or historic, reminiscent, analytical. And in this (lower) case it should be pointed out that I am using your words. Behind this attempt at orderly noticing do I have a horror of the possibility of chaos? Would chaos be an inability to tell one thing from another? Is sanity only the ability to identify and to name? Cultural? Is ordering the 'disorder' an order? Can there be 'order' without repetition? Is there something necessarily simplistic but also 'religious' in affirming (quoting?) that disorder must be only a type of order the nature of which is not yet comprehended...? But the eye of the beholder... not only the order projected but all is order; all is ordered?

The reason for the shape of my nose the same as the reason a bus just past this building. Oh, that's going too far. Events take time. Events take place.

Numed, scheduled events: bus ride, concert, Christmas, eclipse, etc. This is not what I'm interested in. Sub-events: not 'what is,' not what isn't, but what happens in between. In this case: 'not.' 'Passages' then, wherein or post facto or in anticipation, I may note revelatory unities and disparities. What's interesting is not codifying but experiencing and understanding the nature of passages from one state to another without acknowledging 'beginnings' as having any more importance in the incident than 'importance' has in this sentence.

Or than 'ending' in this...

Michael Snow, 'Passage,' Atrium, September 1971

Andy Warhol

1928 Born in Pittsburgh (selected filmsography)
1964 Kiss 50 min
1964 Sleep 360 min
1965 Sex 45 min
1965 Empire 460 min
1965 13 Most Beautiful Women 50 min
1965 Vinyl 70 min
1966 Couch 35 min
1966 Kitchen 70 min
1966 My Hustler 70 min
1966 Hunky 70 min
1966 The Chelsea Girls 195 min
1967 *** (Four Stages) 25 hours
1967 Taxi Driver 90 min
1967 J, A Man 100 min
1968 Lonesome Cowboys 110 min
1968 Blue Movies 90 min

Born Andrew Warhola (to Czech immigrant parents) in Pittsburgh; graduated in Pictorial Design from the Carnegie Institute of Technology, Pittsburgh, in 1949; and moved to New York the same year. He quickly found work as a commercial graphic artist, designing advertisements, magazine illustrations, book jackets and a record sleeve. From the start, the work tended to lack the kind of personal stamp associated with an individual artist: his mother executed some 'of his' drawing and lettering, and colouring was frequently entrusted to friends. He began producing the silk-screen multiples that made his reputation internationally in 1961. The principles of depersonalisation and mass-production established in his painting and sculpture — together with the preference for 'found' and uncharged subjects — were carried over into his film work, which began in earnest in 1963. He is known to have been a prolific film-maker, although few of his films have been screened in public and even fewer are distributed. His films were made with (or by) numerous collaborators, including at various times John Palma, Jonas Mekas, Billy Linich, Chuck Wein, Ronald Tavel and Paul Morrissey. His aesthetic activities and his social position (as the hub of a large and allegedly decadent entourage) were curated on 3 June 1968, when he was shot and seriously wounded by Valerie Solanis. Since his recovery, his modus vivendi has been considerably less flamboyant, and his artistic production has become significantly less profuse and more businesslike. The feature films released under his name since 1968 have been directed by Paul Morrissey or Jed Johnson.

Warhol's films were materially governed by the limitations of the equipment in use. The earliest films (shot in segments of about 2½ minutes, since the camera used would accommodate only 100-foot lengths of film stock) were fixed-angle, silent 'stars' at more or less passive objects. Some observed strictly linear time (Empire, static shots of the Empire State Building overnight and into dawn, Race); others experimented with repetition and permutation (Sleep). It is in their elision of 'subjects' and their explicitness about material factors and processes that these films anticipate structural cinema. As Warhol employed more sophisticated equipment, so the material character of the films changed: longer takes became possible, a zoom lens was used, synchronous sound was added, and there was recourse to a simple form of editing (engineered by stepping and re-exposing the camera). The later films remained explicit about the material processes of their making, but were equally explicitly dedicated to the 'realities' of the pre-filmic events: specifically, the directed or undirected improvisations of Warhol's 'superstars,' usually picked in the key of homosexual melancholia.

Tony Rayns

Ryszard Wnuk

Born in 1948
Lives in Lodz

1971 The Chair 2 min
1972 Lock 7 min (35mm)
1972 The Wall 1st Trial 5 min (35mm)
1972 Registration 3 min (35mm)
1972 Negation 5 min (35mm)
1972 Window 10 min (35mm)
1973 Race 7 min
1973 Straight-away 7 min
1973 Room 3 min
1973 Travel 4 min
1973 Arrangement I – VI 5 min
1973 Flower-Pot 5 min
1973 The Wall 13 min
1974 The Theory of Space in the Film Picture 5 min
1974 Gymnastic 4 min
1975 The Chair
1974 A – B – C – D – E – F – I 36 8 min
1975 From A to B and From B to A 8 min
1975 Sound Situation 10 min
1975 Sound Situations 10 min
1975 I am Going between 12 min
1976 Enlargement 3 min

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The construction of models is a method used in science to simplify problems, increasing the chance of solving them. There exist two kinds of models: the so-called theoretical model which is a set of simplifying assumptions, and the so-called real model which is the very object, or the set of objects, fulfilling such assumptions; this model is the generalization of the theoretical one. It is possible to obtain the real model by constructing a physical relation of objects which simplifies the examined reality but is similar to it in such a way that it may be used in problems concerning this reality. These models of film structures constitute an attempt to go outside the sphere of the language and notions used so far when considering the problems of film. They make an attempt to formulate an attitude opposing the traditional scientific approach which appears both in the theory and practice of film, as no adequate criteria have been worked out, so far, which reflect contemporary knowledge on the subject and also solve the problem of the choice of language in relation to a given artistic film fact. The activity of the contemporary filmmaker, leading to essential changes in the sphere of film knowledge, simultaneously eliminates the traditional notions and language dominant in this sphere.

As is known, the process of acquiring knowledge consists of the active procedures of the examiner on some material, i.e. on the already acquired knowledge and on the objects given physically or notionally. Those activities are generally described in so-called 'everyday language' with the use of such expressions as 'I assume', 'I accept', and 'I change'. Operations with notional objects may be brought to operations with real objects. While operations with real objects may be brought to the sentences of the type 'if Y then Z', where Y is a description of the objective result of the operation and Z is the knowledge obtained in these conditions.

Thus the activity of examining in relation to the objects shows that the examiner does not introduce any changes himself. Thus there is the possibility of conducting verifiable, precise operations (including mental ones). Such precise operations are possible thanks to the use of the elements of logic which deals with the analysis of language and such activities as thinking, defining, classifying, etc.

Kyrold Vasko, excerpted from 'Models of film structures', a lecture presented in the Remont Gallery, Warsaw, 1975

Chris Weisby
1948 Born in Exeter, Devon
Lives in London
1972 Wind Vane 8 min
1972 River Yar 35 min (2 screen) with William Raban
1972/73 Winter and Summer 5 min
1972-73 Windmill One 10 min
1972-73 Fork Film 7 min
1973 Running Film 4 min
1973 Windmill Two 10 min
1973 Forest Bay Two 5 min
1974 Windmill Three 10 min
1974 Tree 10 min
1974 Appearance 10 min
1974 Seven Days 26 min
1975 Colour Separation 25 min
1975 Wind Vane Two 30 min
1976 Stream Line 4 min
1977 Shore Line (6 screen installation)
1978 Cloud Fragments 15 min
1978 Windvane Three 20 min (3 synchronous projectors)
1979 Shore Line Two (6 screen installation)

Working Drawing
Extent of the certainty.
Clocks
Type of equipment used.
The technical aspects of the procedure and its importance in the structure.
Relation to visual observation of the artifact.
Nature of interference
Ebiten of importance of INTERFERENCE
The location and the relationship of its integral parts to the total work.
Interference and its relation to the visual observation of the original 'phenomena'.
Extent of the uncertainty.
Clouds
Extent to which inconsiderables contribute towards the structure.

In the diagram the central and most important position in the order of things is occupied by what I have chosen to call 'interference'. This refers to the activity of myself, a filmmaker, in relation to those things with which I am working. They are, in a general way, divided into two: on the right are 'clouds', and on the left 'clocks'. The 'clouds' in this scheme represent those things which cannot easily be measured or predicted, e.g. the irrational, the unknown quantities or X factors (wind, cloud, changing light conditions, the movement of animals, and to some extent people, all belong to this category) The 'clocks' represent certainty and the more rational, more mechanical aspects of things (cameras running at 24 fps, and tripod with its mechanically controlled functions, tracks and buses running to timetables, traffic lights working on time switches, or architecture with immediately definable proportions. It is not my intention to separate these categories. I have tried to show in the working drawing that the coherent fusing of the two polarities is as important in relation to the artifact as it is an integral part of the phenomena. There is no either/or situation existing with regard to the two categories of 'clock' or 'cloud'. Rather a sliding scale where a clock can be seen to be a cloud or vice versa depending on the method of observation. Inconsiderables often play a very important part in my films and in the way they are made.

In more recent work I am concerned with making my presence more explicit at a decision-making level during a predetermined shooting procedure: a situation where my personal interference with the relationship already established between the camera and its subject matter can be an integral part of the formal actualization of the film. In Seven Days the camera motion is determined by the rotation of earth in relation to the sun. The length of the scene is determined by local weather conditions. The motion of the sun as the earth rotates is easily predetermined. The length of each take, however, cannot be predetermined and depends on my presence for its determination. My films begin as a 'musical feeling' about the spatial and temporal disposition of the component parts of a landscape. My aim is to mediate between the predictable and the unpredictable elements of the situation. My intention is to make films which are not above, but a part of this situation in its entirety.

Chris Weisby

Peter Weibel
Born in 1945
Lives in Vienna
1965-66 Welcome 20 min (film)
1966-67 Nivea 1 min (16, 35, 70mm)
1968 Schatten
Peter Weibel is perhaps the most didactic of the European film-makers, always relating his work directly to a theoretical position and often choosing to present it in the context of an explanatory lecture. His works frequently take on the nature of a demonstration of theoretical principles and have become increasingly rhetorical. After a short period of involvement with Otto Muehl and Gunther Brus during 1966 and 1967 and he and Export together presented a range of film and live-action works concerned in terms of a deliberate challenge to the limits of cinema. His work has always been concerned with structure of information, and its relationship to the whole continuum of electromagnetic radiation. His concept of expanded cinema is directly related to his awareness of the narrow band of 'informational radiation' used in normal cinema. He has, therefore, been concerned with technology in the sense of attempting to extend cinema into the full electromagnetic range, and in showing the nature of informational relationships.

Malcolm Le Grice, Abstract Film and Beyond

Since 1967 Weibel has defined cinema as a conjuncture of calculi, and his efforts have been directed towards the extension of these calculi. He uses the word cinematography in a broader sense than film to encompass video, laser, slide projector, photography, polaroid — all devices of pre-cinema, post-cinema, and post-cinema. Film for him is cinematography reduced to filmstrip, the production of an object. Narrative cinema and commercial cinema offer messages that can also be presented in other media and are therefore seldom autonomous, but frequently non-filmic adaptations. Narrative cinema works with codes which already exist outside the cinema and have developed over the last thousand years. These are codes with fixed meanings like body language, clothes, music etc. 90% of cinema operates with these codes and only 10% with pure filmic codes. He wants to reverse this ratio. Naturally his films will not be understood easily.


John Whitney

1917 Born in Altadena, California
Lives in Pacific Palisades, California
1939-41 Variations 13 min (with James Whitney)
1939-44 Abstract Film Exercises 1-5 21 min (with James Whitney)
1947-49 Mozart Rondo 2½ min
1947-49 Hot House 1½ min
1951 Celery Stalks at Midnight
1955 Lion Hunt 3 min
1956 Blues Pattern 3 min (with Ernest Pistoff)
1956 Performing Painter
1957 Celery Stalks at Midnight 4 min (2nd version)
1961-62 Catalog 7 min
1967 Permutations 8 min
1967 Homage to Rameau 3 min
1968 Experiment in Motion Graphics 19 min
1966 Craia 8 min
1966 Binary Bit Patterns 8 min (with Michael Whitney)
1970 Onaka 3 min
1971 Matrix 6 min
1971 Matrix II 6 min
1973 Matrix III 10 min
1975 Arabesque 7 min

Moving pictures and Electronic music
by John Whitney
The year 1949 marks the beginning of this short history. It might be called a piece of Western frontier history for there are signs of a frontier in it — in one sense — and there is a note of isolation. Stimulated by the avant-garde film-makers of France and Germany of the early 20's I began alone and was soon joined by my brother James, making what were then called abstract films. My point of view was that of a composer; my brother was a painter. I had been casually introduced to the Schoenberg...
twelve-tone principles by friends in Paris a year earlier. Other than this brief exposure to a modern trend of music composition, we had heard Krenz's pamphlet, Studies in Counterpoint, plus recorded music to listen to, including Violin Concerto in G by Charles Ives, the pieces for piano. Up close and personal with Arnold Schoenberg; also Alban Berg's Lyric Suite and violin concerto. It might be said that we were more broadly acquainted with the temper and spirit of modern art, including the Bauhaus in Germany.

As unprecedented comparatively as our art was, the tools were also new or actually awaiting invention. We looked upon filmmaking as a natural aspect of our creative occupation. We treated this facet of endeavor with respect, designing with care even the appearance of an instrument, for example. We accepted, of course, the probability that formal considerations would somehow evolve as a result of an interactive play between ourselves and the character of these tools. And to bear this out, it will be seen that certain formal ideas did come directly from the subsonic approach that we found for producing the sound of our films.

Our subsonic sound instrument consisted of a series of pendulum linked mechanical devices to actuate an optical wedge. The function of the optical wedge was to generate an image of the original optical wedge fine as that of the typical light valve of standard optical motion picture sound recorders. No audible sound was generated by the instrument. Instead an optical sound track of standard dimensions was synthetically exposed onto film which after processing could be played back with a standard motion picture projector.

Our activities were not only musical since our first interest had been to compose abstract graphic compositions with a sense of motion as in music. Before the above musical researches were begun, we redraft several silent abstract films.

The earliest film to be completed consisted of 16 variations upon a graphic matrix. This matrix was given action potential by an extremely simple animation idea. The illustration (fig. 1) shows a diagram of the complex matrix which was actually never revealed on film in this static configuration. This matrix was broken down as shown in fig. 2 and produced with an air brush. The forms of the matrix served as a support for positive and negative stencil as shown in fig. 3. The resulting animation cards with phases of movement were then photographed in sequence onto black-and-white film.

This film strip was in fact one of perhaps many possible serial permutations from the original static matrix. We devised an optical printer in which this film strip could be phototypeset on color film using color filters; either in normal direction or retrograde, right side up or inverted, or mirrored. Graphically here was a parallel to the transpositions and inversions and retrogressions of the twelve-tone technique.

Seeing this short film back from the laboratory for the first time, my brother and I experienced the most gratifying stimulation of our entire film-making activities. Within its extreme limitations, here was a generous confirmation of our compositional principles, the permittibility of the simple graphic material to permit a great variety of compositional structure. We were soon engaged in elaborations upon the matrix ideas which presupposed some form of serial permutation to be juxtaposed dynamically against itself by retrogression, inversion, and mirroring.

The following years were a time of continuous discovery of steps toward a more fundamental graphic element. The static matrix ideas were modified then supplanted by other discoveries.

From Die Reich, 1960
Reprint from Russet & Starr, Experimental Animation, 1976