Film-making as a Creative Non-linear process
(like designing)

Abstract
This paper draws on research in the practice of design and technology and applies it to the production of television documentaries.

Whilst studying television documentary and muddling my way through the production of my first 'proper' documentary, I was struck by the inadequacy of the prevailing conception of documentary film production as a linear process. The process of making the film could not be contained within the established model of production and the final film was not contained within the 'treatment' I had written at the beginning.

In both the documentary production technique's literature and television funding/commissioning structures, there is a strong tendency to divide up the film production process into three distinct elements: pre-production (research), production (shooting) and post-production (editing). In theoretical analyses too, the conception of the film as a 'text' and the metaphor of writing as a model for making films, both support a linear conception of the production process and encourages the production of lecture-like films. Yet making films is (or should be) different to writing books.

An essentially practical and theoretical activity, the film making process is less like writing than designing. Both draw momentum from a reflective and practical engagement with reality and both, moreover, are inhibited by structures which impose a linear schema upon their essentially reflective practices.

Current debates on observational film converge around an ongoing argument, centring on the notion of 'truth', about how the act of shooting life changes it, and how and whether this 'effect' can or should be minimised (Direct Cinema) or emphasised (Verite). There has been little written, however, about how the structure of the production process directly influences the form of the film.

Just as the practice of filming life changes it, however, so too can this process provoke change in the ideas of the film-makers, inviting them to review initial assumptions and update their original hypotheses. As new lines of enquiry are concretised in the creation of footage, further questions and objectives simultaneously arise which demand that the film changes as production progresses. Whilst this process suggests a spiralling movement, or cyclical progression, the film making process is most often conceived in linear terms.

This conception can be traced, it is suggested, to two main positions: the focus in critical analyses on the film as 'text' and the literary metaphors implied by this; and the focus of 'practical' guides on a neatly ordered and sequential production process. Taken together these positions contrive to produce a linear model of film production. This linear model, however, is adequate only to describe the process of making those more text-like 'films' of the expository kind — 'illustrated lectures'. A non-linear model, it is suggested, is more adequate to the contemplation of the production of more 'filmic' documentaries, because the film making process is (or should be) different to that of writing.

Since film-making is an essentially 'iterative' process that can best be described as 'thought in action', film-makers have more in common with designers than writers. Drawing on theory from design and technology, the paper presents a non-linear model as a more adequate representation of the documentary production process. According to this schema, the film 'idea' is not conceived at the beginning only, but continually throughout production and even afterwards, so that the documentary produced is more polysemic and open to interpretation than the fixed 'text' of the expository form. Drawing their logic from the encounter of the film-making process, rather than from a preliminary and distinct 'research' phase, such films communicate using a particularly filmic language rather than writerly exposition.

The paper begins by outlining the 'film-as-text' position in the context of anthropological critique and illustrates how this combines with the 'documentary techniques' literature to produce a linear conception of the film making process. Suggesting that this position reflects and reinforces the production of 'writerly' documentaries, the paper goes on to explore the production of more 'filmic' films.

After outlining the distinctive properties of more observational forms, theory from design and technology is employed to present an alternative and more adequate model of their production. The paper thus focuses on how the characteristics of such a production process both conform to the non-linear model of 'design' and challenge a linear conception of film-making. Arguing that the resulting films are similarly more 'open' (polysemic) than the fixed texts of the expository form, the paper concludes by noting that such observational forms are more true to the nature of film.

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Illustrating arguments: the linear model of documentary production

The way we define documentary, Nichols (1991: 13) suggests, demonstrates 'how we constitute our objects of study and how that ... determines much of the work that will follow'. Whilst the analysis of documentaries, then, is a matter of 'theoretical' engagement, our conception of them is central to their consequent production. In his influential definition and categorisation of documentaries, Nichols suggests that 'a familiar way to define documentary is in terms of the texts' (Nichols, 1991: 18).

Comparing ethnographic film with ethnographic writing, Crawford (1992: 68) argues that the two 'discursive practices' or 'forms of representation' are but 'two different products of the same (anthropological) process', the (different) products of both of which may however be understood as 'texts' (Ibid.: 69). Marcus (1995: 38) similarly insists on the 'common potentials of the two media' through 'appreciating [ethnography] as a special kind of text making activity regardless of the medium'. Whilst Crawford aims to elucidate the differences between anthropological writing and films, his focus on 'texts' nevertheless grounds his comparison in the idiom of writing.

Contrasting the production processes of writing and film, then, Crawford simply substitutes taken-for-granted and apparently discrete stages in the film production process for those in writing. Thus he suggests that the 'fundamental difference' between ethnographic writing and filming can be shown by the models (see Figure 1).

Crawford's argument that the two are different is, however, undermined by the superficiality of his scheme, which privileges the way that (he presumes) written texts are produced. Footage is not 'gathered' in the same way as data, however, and is therefore not synonymous with it; neither is 'textualisation' the same as 'editing'. Moreover, the practice of constructing a film does not (or should not) proceed in the linear fashion Crawford's text-centred model sets out. The processes of research, filming and editing cannot usefully be separated into these distinct elements, let alone placed in the tidy sequence above.

Whilst viewing films as texts invites us to understand them as cultural artifacts and locate the source of their meaning in the social context, it does little to shed light upon the context of their production or the effect of the way they are produced on the 'type' of documentary 'product'. As Barbash and Taylor importantly emphasise:

'The act of filming is often likened by anthropologists to the documentation or demonstration of research... This assumption misconceives the kind of interventions that take place when you film, and ignores differences between films and texts. Film images have an inextricable relationship to their object, and, while shooting, you're selecting and editorialising in ways that will be intrinsic to your final film. Once you recognise this, it's difficult to see research and filming as altogether different stages' (Barbash and Taylor, 1997: 70).

Structure need not be linear, then, but in technical guides also, it often is. 'How-To' books (with a few notable exceptions - Barbash and Taylor's Cross Cultural Film-making (1997) is an excellent example) are also complicit in the construction of a linear conception of the film making process. Whilst it is inevitable that such books must oversimplify in order to 'teach', the way that they choose to simplify reveals underlying assumptions.

There is an overwhelming sense in such manuals that research precedes writing the script, which precedes shooting, which precedes editing, etc. Whilst books such as Baddeley's The Technique of Documentary Film Production, for example, allow for 'scripting the unpredictable' (Baddeley, 1981: 19) in doing so they actually reinforce a rigid sequential production process – we can plan for the unplannable without upsetting our orderly progression towards a finished film. This linear schema might possibly be adequate to contemplate the production of written texts, (and handy when it comes to writing texts about making films) but making documentaries in this way, I believe, can only produce films that are indeed 'text'-like – the formulaic 'expository' (Nichols, 1991; Barbash and Taylor, 1997) documentaries which dominate today's TV schedules.

Popular among television programmers because they present a point of view clearly (Barbash and Taylor, 1997: 18-19), and because they are 'predictable', 'probably more than ninety percent of the documentary films produced today are formula films ... in which narration is key to the formulas' (Drew, 1996: 271). According to this 'technique' of documentary production, an
argument is ‘developed’ during a distinct preliminary research phase and subsequently illustrated with words and relevant images which are fitted, in the edit, into a persuasive story that remains unchanged from its initial conception. Reflecting accurately Crawford's writerly model, documentaries of this type taken together contrive to produce what may be considered a ‘text centred definition of documentary’ (Nichols, 1991: 20) in which there exists ‘the assumption that sounds and images stand as evidence and are treated as such’ (Ibid.)

Given the context of their production, then, it is hardly surprising that ‘expository’ documentaries are often (and revealingly) described as ‘equivalent to an illustrated lecture’ (Barbash and Taylor, 1997: 19). Drew (1996: 273) further suggests that such formulas are based on ‘lecture logic’, where ‘... narration props up weak film, justifies aimless film, rationalises disjointed film, unifies disparate film, adds intelligence to dumb film’ (Drew, 1996: 271). The meaning and point of view of expository films is thus ‘elaborated more through the sound track than the images’ (Barbash and Taylor, 1997: 16), inevitably reflecting a linear process of production more suited to the production of written rhetoric than the language of film.

The expository mode thus communicates in a language which does not exploit the possibilities of the documentary form. In opposition to producers who ‘find that controlling narration gives them a satisfying way to control the editing, on paper, in advance’ (Drew, 1996: 271, my italics), a non-linear model of the production process develops its logic as it progresses. If the production process is conceived as a more reflexive process where the film structure is not conceived at the beginning only but continually throughout the process, the resulting film should consequently be similarly ‘malleable’; a polysemic documentary form contrasting with the expository polemic that leaves ‘little room for misinterpretation (or interpretation for that matter)’ (Barbash and Taylor, 1997: 18-19).

**Thought in action: a non-linear model of documentary production**

A non-linear model of film-making reflects the process of making documentaries which are not expository, which do not set out to illustrate an argument formulated earlier in research, but which are products of the encounter of film-making. Such films exploit the language of film rather than use pictures as an accompaniment to words.

Inextricably rooted in a non-linear production process, a specifically filmic documentary language can be found in the ‘observational’ documentary form. ‘Freed from the tyranny of the blueprint’ (Ibid.), ‘Direct Cinema’ and ‘Cinema Verite’ both ‘capitalised on the spontaneous’ (Rabiger, 1998: 25) when technological developments in the late 50s and early 60s created the possibility of greater shooting ratios and increased mobility. Documentary films which proceed from the encounter rather than from the script can be seen to have their roots in this tradition. Exploiting the freedom that this mobility offered, a more evocative film language stemming from a more reflective – and messier – production process simultaneously evolved.

Deriving its form from a characteristic relationship between thinking and making, this documentary production process has a much greater affinity with design than with writing. In film production, as in design, ‘there is a tight relationship between the expression of ideas and the development of ideas. It can be described as “thought in action” (Kimbell, Stables and Green, 1996: 25). Documentary production and design and technology are thus both essentially theorectical and essentially practical activities in which the relationship between theory and practice is essentially reflective. Moreover, it is this reflexivity that gives (non-linear) momentum to the production process.

‘In a design and technology task (as probably in any task) the relationship between action and reflection is iterative. Action forces issues into daylight, and in reflecting on these issues, we raise further directions and possibilities for action.’ (Kimbell, Stables and Green, 1996: 13)

The linear model of film production is too neat to allow for any reflexivity, too restrictive to encourage creativity. Whilst there is little in film studies or the documentary techniques literature to counter this writerly schematic, Design Studies provides a useful alternative. Viewing documentary film-makers as designers, rather than writers, illuminates the way that they go about making films rather than writing texts.

The production of more ‘filmic’ documentaries is often self-consciously collaborative, with no rigid distinctions between either the members of the crew or the ‘phases’ of development: it is a journey of discovery, guided by what might be called either instinct or prejudice; where research is continual and reflective and the structure of the film is not imposed from an external source, but developed from within its own logic. The following exploration of these characteristics draws on Kimbell’s (1991)
Developing an understanding of the task and its resolution

Figure 2: 'Iterative' model of designing (Kimbell, 1991).

A journey of discovery: the breakdown of rigid distinctions between phases of development

The design process, like the film production process, has traditionally been conceived as a number of sequential steps (identify problem - research - generate ideas - selection - make solution - evaluate). Yet the difficulty with these linear models is that 'it does not make sense to say that evaluation (for example) only happens at the end of the process, or that ideas are only necessary at a particular point. One has constantly to be evaluating, and constantly having ideas that demand such evaluation' (Kimbell, 1991: 7).

In film-making as in design, thoughts change as production progresses: it is in the process of making thoughts material - shooting footage as events unfold; editing material together in the cutting room - that new ideas are generated. Thus 'the act of expression pushes ideas forward... [and] the additional clarity that this throws on the idea enables the originator to think more deeply about it' (Kimbell, 1991: 9). As Leacock suggests, 'We find that the editing is often a process of discovering... Often we discover a new kind of drama that we were not really aware of when we shot it... And so you've got two levels of discovering... You have to do it to get the idea' (Leacock, 1963 in MacDonald and Cousins, 1996: 255). Watching through the viewfinder or reviewing rushes can thus spark new lines of inquiry which could not have been conceived prior to the encounter.

Formulating a definitive script or blueprint in a preliminary 'research' phase sacrifices this scope for development in 'production' and 'post production' for the sake of predictability. In this way, linear models, 'seek to impose order on a messy, confusing and essentially interactive process and the danger is that by imposing order they also impose a degree of rigidity and hoop-jumping that destroys the creative essence of the process' (Kimbell, 1991: 7).

Rejecting this unreflective progression as inadequate to the creative process, then, Kimbell (1991: 7) proposes an alternative model which, whilst ostensibly addressing design, adequately describes the encounter of documentary film production (see Figure 2).

The model illustrates how the act of expression pushes ideas forward and how this in turn encourages clarity of expression. When the production process is conceived in this non-linear way, production as much as pre-production, becomes a process of discovery and exerts influence over the form of the final film. Distinctions between the phases of production are thus dissolved. The lack of a blueprint developed in 'pre-production', however, does not necessarily imply a lack of 'direction' - rather, conceptions are developed as part of this integrated production process - stories are developed 'in situ'.

Guided by 'instinct' or 'prejudice': the primary generator in observational film

The particular (and practical) way in which the documentary film-maker 'confronts reality' is shown in this model to be a function of his or her conceptions. Even (and especially) a film which develops without a shot list and from within its 'own' logic, must have a guiding force - something which drives it forward, even whilst it mutates. Interchangeably referred to in the documentary literature as a 'criteria of significance' (Vaughan, 1999: 23), 'conception', or 'instinct', the 'intentions' of the film-makers prevent the documentary from declining into what Vaughan (1999: 23) describes as an 'aphorismous mess'.

According to this model of production, these conceptions are realised (in both senses of the word) during the encounter of film-making. Often considered one of the first 'observational' film makers, Robert Flaherty, for example, developed his 'story' in situ, responding to the changing reality he experienced. Thus, '[r]ather than scripting the filming in advance, Flaherty would take each day as it came. At night he would write out in his diary the ideas he had for future sequences, and he would revise them as he

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went along' (Barbash and Taylor, 1997: 24). In practical activities, distinguishing ideas (research) from their concretisation (shooting footage) inhibits creativity. In the film making process this threatens the filmic nature of the product.

Challenging the conception, in the anthropological literature, of film-making as a ‘text’-making activity, Barbash and Taylor (1997: 70) point to this fundamental difference between writing and filming, when they suggest that '[a]lthough the gathering of data is always theory laden, textual anthropologists can ... do the bulk of their thinking and theorising once they’ve returned from the field. However, during filming you’re making decisions that irrevocably embody your theory' (my italics). The act of thinking cannot sensibly be separated from the act of doing in any ‘task’, as Vaughan (1999: 20) similarly suggests when he notes that ‘the cameraman’s ... choice of angle will reflect his moment-to-moment judgment of what is important’. Faced with recording the spontaneous, the cameraman’s actions are an ‘instinctive response’, which is nevertheless an informed one.

In the field of design and technology, the conception which informs or drives this ‘practical’ part of the process is known as a ‘primary generator’. Generated itself from the contemplation of reality, the primary generator is a concept which refers to the idea, or set of ideas, which motivate action. Whilst any particular primary generator may be capable of subsequent justification on rational grounds, Darke (1979: 38) suggests, ‘at the point where it enters the design process it is more of an article of faith ...’ Wiseman alludes to this idea when he suggests that ‘[i]n shooting, the motivation to record a particular sequence may result from the way someone walks or is dressed; or a hunch, the intuition that something interesting may develop when two people begin to talk. When I have that feeling I’ve learned to follow it...’ (Wiseman, 1996: 278). Whilst decisions which are of necessity made ‘instantly’ are often referred to as ‘intuitive’, however, no social behaviour comes to us naturally. Such moment-to-moment judgements are simply more ‘honest’ reactions to the spontaneous.

When there is more than one film-maker, such motivations must be shared (and perhaps generated) by the crew. If this sort of shooting can be called ‘objective’, Vaughan (1999: 20) suggests, it is in the sense that ‘it is less predetermined than ever by the intentions of an individual – the director’.

A collaborative process: no rigid distinctions between members of the crew

‘There will be no such thing as a cameraman; there’ll be film-makers. They’ll be no such thing as editors, there’ll be film-makers. It’ll become an integrated process...’ (Leacock, 1963 in MacDonald and Cousins, 1996: 255).

Not only do distinctions between ‘phases’ become redundant, but in this more ‘open’ style of production, those between ‘crew’ must become dissolved too. Whilst a close relationship between director, camera operator, and sound recordist is ‘less important when shooting in a controlled style, as the director can describe to the camera operator and recordist what to shoot and record before it happens’ (Barbash and Taylor, 1997: 72), in observational film-making, ‘ideally there is an intimate interdependence between them as they respond to unforeseen clues and cues as the camera is rolling’ (Ibid.). In this context, when filming life ‘as it happens’, the guiding force of the primary generator allows greater autonomy on the part of the (usually small) crew, thus shifting authorial ‘control’ away from the director. In such a collaborative process, then, when there is no ‘scripted’ shot list or storyline, the narrative develops as the result of a collaborative exercise rather than an individual vision.

In the Space between Words series (Transmission: BBC2 8 February to 7 March 1972), ‘lengthy discussions between the technicians involved’ (Vaughan, 1999: 23) determined the ‘criteria of significance’ (or primary generator) (Ibid.). Since the directors were not usually present during filming, the film developed in its ‘own’ direction as the unanticipated outcome of a collaborative process:

‘At one noisy moment in the School film the teacher leaned forward to say to a boy, “I can’t hear you. I can’t hear you”. The cameraman zoomed in but the recordist was not able to adjust his position quickly enough. The result was that, although the teacher was in close-up, her words were almost drowned out: and the effects, in the finished film, was to throw emphasis upon her difficulties’ (Vaughan, 1999: 20).

Unfixed by a script or an individual ‘vision’, then, as the product of reflective response to reality by multiple subjectivities, the film seems to gather its ‘own’ momentum.
The structure of the film is developed from within its own logic

Whilst the idea that a noisy class might prevent a teacher from communicating could have been developed in research and then illustrated through gaining shots scripted in advance, the results might have been less convincing. They would certainly have been less filmic. Production according to this model, then, develops by employing the ‘dramatic principles’ of film, where the film itself provides ‘the thread, the viewpoint, and the logic’ (Drew, 1996: 272).

Vaughan suggests that the film-maker’s overriding concern in the Space between Worlds series was that ‘just as the process of film-making should be as open-ended as was consistent with making finished programmes, the finished programmes should, so far as possible, reflect this open-endedness’ (Vaughan, 1999: 24). Viewers of the series, Vaughan suggests, do indeed ‘find in the films implications beyond those of which we ourselves were conscious’ (Vaughan, 1999: 26).

Being closed to such developments means that production regresses to the linear, writerly model, where ‘shooting footage’ really does become synonymous with ‘gathering data’. Conversely, being open to the development of new ideas allows the film to take that form ‘to which it seems to aspire’ (Vaughan, 1999: 21) and the resulting film will consequently be more open to subsequent interpretation than the film planned on paper, in advance.

Conclusion

‘Certain concepts... may be more easily and economically communicated in words than on film... but film offers possibilities of its own, such as the portrayal of living experience, in ways that are unavailable to writing’ (Barbash and Taylor, 1997: 35).

In expository documentary, the tendency for the soundtrack to explain what images mean originates in (and betrays) the fact that the images cannot speak to the viewer themselves. The visuals cannot be trusted to impart meaning to the audience, and the audience cannot be trusted to decide what they mean. Such films neither exploit the possibilities of film nor utilise its language effectively. They owe more to the logic of lectures than the film-making process.

Fims which develop from the encounter of film-making, however, and are structured by it, speak with a particularly filmic language. By letting the spectators ‘put the pieces together for themselves’, they demand a more active viewing experience (Barbash and Taylor, 1997: 28). These characteristics of observational film originate in the context of a non-linear, reflexive production process, which gains its direction and momentum from the production itself. In this sense the documentary remains true to both the object of study and the dramatic (rather than expository) nature of film:

‘Films that tell stories directly, through characters who develop through action in dramatic lines – these have the possibility at least of allowing the power of film to build. This kind of film can soar. Beyond reason. Beyond explanation. Beyond words.’ (Drew, 1996: 271).

Bibliography