

## **Motion Studies**

By Scott McDonald (1994)

Often, we act as if the evolution of cinema left certain pleasures behind -- outgrew certain "primitive" pleasures -- as narrative melodrama established itself as the primary focus of popular film going. For most filmgoers, the movies are a storytelling medium, and those forms of film that do not conform to this expectation are considered "marginal" and inessential to mainstream film history. Indeed, the more fully filmmakers working in arenas other than the commercial mainstream -- and especially in what has been variously called avant-garde film, independent film, experimental film, underground film... -- cut themselves loose from storytelling, the less central to our awareness they can seem. In my view, this framing of independent cinema is problematic because it ignores both the complex nature of our pleasure in cinema and the historical realities of that complex pleasure.

While it may be true that cinema achieved its status as a primary popular entertainment at the moment when the development of film language allowed cinema to merge with narrative and dramatic prose fiction, the pleasures that seem to have instigated the cinema are quite distinct from those of melodramatic storytelling. The technological/ aesthetic evolution that produced the "philosophic toys" of the Nineteenth Century; Eadweard Muybridge's photographic motion studies and Zoopraxiscope; Etienne-Jules Maray's photographic gun; and ultimately, the Lumière Cinématographe and the first motion pictures (in the modern sense of the term) seems to have been fueled primarily by an interest in studying motion, and a fascination with those visual technologies that allowed movement to be analyzed and resynthesized for popular pleasure and enlightenment. When people purchased new phenakistoscope discs for the parlor, attended Muybridge lectures, and later, screenings of Lumière and Edison motion pictures, they seem to have been primarily interested in being able to study and enjoy how things move .

While the popular cinema seems to have rendered this fundamental cinematic pleasure "primitive," a means to the end of melodramatic narrative, the pleasure in motion study has remained a vital element of much of our filmgoing experience and a major focus of both documentary and avant-garde filmmaking. This is particularly obvious in documentary filmmaking. Much of our interest in *Nanook of the North* (1921) -- for all the film's storytelling elements -- is in how Nanook and family do things, that is, the motions they make in accomplishing particular tasks; the power of Robert Gardner's *Forest of Bliss* (1985) has to do with the opportunity it offers us to see the "motion" of Benares, India, as those who live and visit there go about their business. But motion study is equally important in the history of avant-garde filmmaking. Indeed, to some degree one can see the history of avant-garde cinema as a continuing articulation of that early interest in

the study of movement and the fascination with the technologies that make this study possible.

While I believe my argument here could easily encompass much of the history of avant-garde film, I want to focus on the period from the mid-1960s to the early 1970s, when a new generation of avant-garde filmmakers was reacting to mainstream cinema and the aesthetic and social politics it tended (and tends) to encode. For that generation, the origins of cinema seemed to offer an escape from the assumptions of the commercial media, and provided valuable inspiration for new forms of film practice.[1] Avant-garde filmmakers interested in defying the commercial and academic mainstream and, in a sense, starting film history over, found particular value in what had become the two most distinctive, but closely related, early approaches to motion study: those epitomized by Muybridge's serial studies of human and animal locomotion, and by the Lumière Brother's early Cinématograph shows, and especially the Lumières' assumption that individual subjects should be recorded in single, continuous shots, like the subjects of still photographs.

There are, of course, a good many films that can be described as rigorously "Muybridgian" or "Lumièresque," films that reflect their makers' conscious or unconscious decisions to record the motion of the phenomenal world quite directly, quite literally, and to use graphic and temporal structuring ("grids" of one kind or another) so that this motion can be studied. Such films include -- to name just a few -- Marie Menken's *Go Go Go* (1964), Michael Snow's *Wavelength* (1967) and *See You Later/Au Revoir* (1990), Yoko Ono's *No. 4 (Bottoms)* (1966) and *Film No. 5 (Smile)* (1968), Hollis Frampton's *Zorns Lemma* (1971), Larry Gottheim's *Horizons* (1973), Robert Huot's *Rolls: 1971* (1972), Ken Jacob's "Nervous System" performances (ongoing, since the 1970s), John Porter's "Condensed Rituals" (1970s, 1980s), Godfrey Reggio's *Koyaanisqatsi* (1983) and *Powaquatsi* (1987), Yervant Gianikian and Angela Ricci Lucchi's *From the Pole to the Equator* (1987), Rose Lowder's *Impromptu* (1989), and Leighton Pierce's *Red Shovel* (1992), to name a very few of dozens of possible instances. The motion recorded and studied in these films is seen against a graphic grid or, more often, within a temporal grid, whether time is divided into shots of equal (or roughly equal) length, as in *No. 4 (Bottoms)*, *Zorns Lemma* and *Rolls: 1971*, or is "analyzed" by means of individual frames selected out of the flux of reality at regular intervals and resynthesized into "time-lapse" imagery, as in *Go Go Go*, Porter's "Condensed Rituals", and Reggio's *Koyaanisqatsi* ..., or is slowed-down by the camera's ability to record more than 24 frames per second of the action, allowing us to study it in slow motion, as in Ono's *Film No. 5 (Smile)*, *Powaquatsi*, and *See You Later/Au Revoir*. In other instances, filmmakers have extended the Lumière single-shot approach (1 shot = 1 film), creating extended looks at particular actions, and defining them as complete films (for example, Larry Gottheim's single-shot films -- *Blues* (1969), *Fog Line* (1971), and *Corn* (1971) -- Huot's *Snow* (1972), J.J. Murphy's *Highway Landscape* (1972) and *Sky Blue Water Light Sign* (1972)...

In other, closely-related bodies of work similar methods are used to study the particular interface of the phenomenal world and the recording apparatus of camera/celluloid. This is the case in Murphy and Ed Small's *In Progress* (1972), where a movie camera records an Iowa landscape in all lights and seasons, revealing the impact of these changing external conditions on the nature of the film's depiction of the scene; and in Murphy's *Print Generation* (1974), and Ernie Gehr's *Morning* (1968) and *Eureka* (1979). Other films study artifacts of mainstream film history itself: in *Piècé Touchée* and *Passage à l'acte*, for example, Martin Arnold explores tiny, "typical" passages from *The Human Jungle* (1954) and *To Kill a Mockingbird* (1963) respectively, using a home-made optical printer to de- and re-construct the various levels of motion in these passages; in *From the Pole to the Equator*, Yervant Gianikian and Angela Ricci Lucci analyze and explore early footage collected by Italian cinematographer Luca Comerio.

But of course, "motion study" need not be taken in a literal sense. While some filmmakers have focused their and our attention on visible reality or on the interface of the phenomenal world and the apparatus used to record it, many others have focused on the motion of consciousness -- on the part of characters and/or on the part of viewers. And in many cases, these filmmakers -- like those who approach the idea of motion more literally -- have appropriated elements of motion study developed in the earliest cinema and pre-cinema. Laura Mulvey and Peter Wollen's *Riddles of the Sphinx* (1977) explores the development of a woman's sense of independence, and her growing awareness of the patriarchal context within which this independence must function -- her psychic movement, if we think in Muybridgian terms -- by constructing an overall "grid structure" within which a series of extended, 360° panning shots of everyday activities are the central motif. Further, this central character's evolution, which we can measure against/within this spatio-temporal grid, is framed by three opening sequences and three closing sequences that provide a set of allusions to more literal forms of motion study developed by avant-garde filmmakers: camera explorations of some home-movie footage of the Pyramids and the Sphinx (reminiscent of Ken Jacob's extended motion study of an early commercial narrative film, in *Tom, Tom, the Piper's Son* (1969), an extended single-shot of hands solving a labyrinth puzzle, and so on.

Even avant-garde films that defy the politics implicit in Muybridge's and the Lumières' choices of subjects and methods often use methods that relate to the early motions studies.[2] In Yvonne Rainer's *Journeys from Berlin/1971* (1980), for example, various motifs, including a set of printed and spoken stories of incidents of political violence; several journeys by car, train, plane; an extended discussion between a psychotherapist and a patient; and an auditory discussion between a man and a woman are "analyzed" into separate segments -- "analyzed," in the Muybridgian sense, of breaking an action into separate segments -- and interwoven into a serial structure (roughly, a grid). As viewers watch and listen, they resynthesize the various segments of these social and

historical motions, and are able to measure them against each other and against current events. In Trinh T. Minh-ha's *Naked Spaces -- Living Is Round* (1985), Trinh's visits to one West African culture after another, her consistent use of (halting) vertical and horizontal pans and a serially-organized soundtrack provide patterns (again, implicit "grids") within which the viewer can compare/contrast many different African dwelling spaces and see that African cultures are at best as various and distinctive as European cultures.

Except in rare instances, the commercial industry has tended to underplay motion study, especially in the more literal sense of the term. Of course, in a general sense, even narrative is about "motion": narrative melodrama creates symbolic renditions of the motions of individuals in relation to their emotions, to each other, to society, and to history. And the "better" the film, the more fully it "moves" and "moves us." But even in the more literal sense, "motion study" is important (if often suppressed in terms of viewer-consciousness) in commercial cinema. We have always gone to conventional films to study the motions of the faces and bodies of movie stars. Indeed, the combination of the camera's restricting gaze, the particularly dramatic enlargement of the image in 35mm (and larger gauge) projection, and the theatre's darkness allow commercial moviegoing to function in a manner perhaps more fully analogous to examining macroscopic or microscopic worlds with telescope or microscope than is possible in smaller gauges.

Even though the commercial film audience's fascination with looking at how things move is usually ignored, however, the importance of this fascination is often obvious and in some instances may have at least as much to do with a film's popularity as those dimensions of the film that are routinely discussed in the media and honored with Academy Awards. For example, at the heart of *J.F.K.* (1991) -- and regardless of what one decides about the overall historical accuracy of Oliver Stone's rendition of the Kennedy assassination, or about the film's depiction of gays, or about the quality of the acting (the dimensions of the film most noted in media coverage) -- is a painstaking motion-study of the Zapruder footage, a remarkable historical cine-artifact many of us have looked forward to really seeing, for decades.

The impact of a genre film can also be understood as a function of motion study - - though in a less literal sense than *J.F.K.*'s motion study of the Zapruder footage. The particular generic expectations viewers bring to each successive Western or horror film, or epic, function as a set of regularities, predictables (a set of patterns, an implicit "grid") against which one can study the motion of the genre's evolution and of one's own evolution in relation to the genre.

Ultimately, the recognition that motion study lies at the heart of cinematic pleasure allows for a more inclusive sense of film history. To see film history primarily, even fundamentally, as the history of feature-length, commercial melodrama -- and all other filmmaking practices and histories as "marginal" --

endangers not only our understanding of the way in which cinema has in fact been articulated, it threatens film history itself. Should the current North American economic recession continue or expand, we are sure to see further cutbacks in film funding by Federal and State organizations and further exodus from independent moviehouses. The result will be a focus on cinematic "essentials," and a tendency to eliminate the "marginal" forms and practices.

But if we can accept the fact that exploration of motion by "independents" ( and Industry filmmakers) has always been, and remains, a fundamental element of the film experience, and that one crucial strain of film history is the on-going discourse of the many forms of overt and implicit motion study a century of cinema has made possible, a healthy articulation of film history has a decent chance of surviving and illuminating whatever the Motion of Things brings us in the coming years.

#### Notes

[back] This inspiration was often credited by the filmmakers themselves. Jonas Mekas's dedication of *Walden* (1968) "to Lumière" was clearly an attempt to relate his chronicle of the life around him to the seeming simplicity and directness of the early Lumière films. To the first viewers of Mekas's diaries, his Brakhage-inspired gestural camera movement and erratic single-framing might have seemed the diametric opposite of the Lumière Brothers' simple, single-shot films, made with a stable, mounted camera. But to Mekas the connection was more significant than the differences: the Lumières' decision to turn the camera on the life around them, including some of the more personal, everyday, dimensions of this life -- the baby being fed, workers leaving the factory, a train arriving at a station -- reflected an interest evident in Mekas's diaries in using the apparatus of camera/projector to do something other than provide new forms of melodramatic narrative.

Such connections inspired "Researches and Investigations into Film: Its Origins and the Avant Garde," a conference at the Whitney Museum of American Art, November 14th-18th, 1979. The conference coordinated by John Hanhardt, included presentations by scholars (Thom Andersen, Nick Browne, Noel Burch, Regina Carnwell, Tom Gunning, Maureen Turim) and filmmakers (Hollis Frampton, Ken Jacobs) and screenings of early film and then-recent avant-garde films that engage early cinema either literally: Ken Jacobs' *Tom, Tom, the Piper's Son* (1969), Gehr's *Eureka* (1974), Thom Andersen's *Eadweard Muybridge, Zoopraxographer* (1975); or conceptually: Morgan Fisher's *240X* (1974), Frampton's *Fragments from Magellan* (1974, works-in-progress for the *Magellan Cycle*, completed later).

A more recent instance of a similar curatorial insight was *Back and Forth: Early Cinema and the Avant-Garde*, a show designed by Bart Testa, and presented at the Art Gallery of Ontario, April 24 to May 17, 1992; and documented by a

catalogue of the same name, written by Testa and published by the Art Gallery of Ontario.

[back] While Muybridge's model for studying the motion of things was of crucial importance for the early development of motion pictures, and has remained a useful model for more recent filmmakers, his technology for recording and displaying animal and human motion was, of course, never philosophically/politically neutral. Muybridge's methods and their results encode a variety of cultural and class issues, and they reflect conventional gender assumptions.

Linda Williams has demonstrated that Muybridge's photographs of women are different from his photographs of men in significant ways. Indeed, Williams sees Muybridge's motion studies and the development of hard core pornography -- films that reveal/instigate sexual motions of the body -- as fundamentally parts of the same development. See *Hard Core: Power, Pleasure and the "Frenzy of the Visible"* (Berkeley: University of California Press, 1989), pp. 39, 41 .

To some degree the gender gap in Muybridge's motion studies remains evident in avant-garde films. In many instances, including the films by Rainer and Trinh I've mentioned -- and there are many other instances: Su Friedrich's *The Ties That Bind* (1984), for instance, and Holly Fisher's *Bullets for Breakfast* (1992) -- women filmmakers have used serial organizations, while refusing to be rigidly bound by them (the way Gehr, Frampton, and Murphy are "bound" by the structures of *Serene Velocity* , 1970; *Zorns Lemma* , 1970; and *Print Generation* , 1974, respectively): that is, they have implicitly invoked Muybridge's system in order to work against it.