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“An Experiment in Pure Design:”

The Minimalist Aesthetic in the Line Films of Norman McLaren

During the 1960s Scottish animator Norman McLaren undertook a series of inquiries into the nature of the line that culminated in three films, *Lines Vertical* (1960), *Lines Horizontal* (1962) and *Mosaic* (1965). Although McLaren has always been associated with innovation in animation technique and aesthetics, often times his more formal concerns have remained overlooked, underexplored, or even dismissed by critics such as Malcolm LeGrice. This paper seeks to readdress this by looking at the *Line* trilogy in relation to the development of minimalist tendencies that emerged in both art and music in the twentieth century. Further to this McLaren has asserted that the structure of his *Line* films is influenced by the structure of Indian music, a music whose formal construction is intrinsically bound to notions of the spiritual. This paper will draw on these notions in order to examine how the process of simplification intrinsic to Indian music and by extension minimalism, across the arts, has an innate spiritual quality to it that can allow McLaren’s films to function on both a formal and spiritual level simultaneously.

The first two films in the series, *Lines Vertical* and *Lines Horizontal*, were an experiment in “pure design” (NFBC 1960, p. 1) with the aid of Evelyn Lambert, McLaren’s frequent collaborator at the National Film Board of Canada. McLaren and Lambert distilled the process of animation down to its most basic elements, form and rhythm, to see if it was possible to make a film with a single line moving at varying speeds. Lines that were 19” in length, the length of Lambert’s ruler, were engraved directly into the emulsion of the film. At the end of each 19” segment the line would change direction marking a natural break in the action. The program notes for both films states that McLaren and Lambert “reduced picture and action to the bare minimum required to hold the eye and delight the senses. What you see is simply a sheaf of lines, constantly gyrating, grouping harmoniously on the screen in accord with music” (NFBC 1960, p. 1). From this statement three conclusions can be drawn. Firstly, McLaren was interested in exploring animation in its purest form. Secondly, McLaren was trying to create films that could appeal to audiences at a universal sensory level and finally, the films had an inherent musical rhythm to them that could allow musical soundtracks to be synchronised to them on a later occasion.

These concepts were not unique to McLaren and his three *Line* films clearly belong in the lineage of minimalist art and music that emerged in the twentieth century. Although they perhaps do not draw a conscious or direct influence from these works, in many ways the asceticism of McLaren’s *Line* films was mirroring a shift towards a simpler aesthetic in music and the plastic arts. The most obvious visual and philosophical counterpart for the aesthetic and structure of these films can be found in the *zip* paintings of American painter Barnett Newman. Newman created a series of paintings with vertical bands that he referred to as *zips*. These zips vertically traversed a coloured canvas, breaking the *void* of the space. McLaren’s lines serve the same function. The separation of the moving lines in both *Lines Vertical* and *Lines Horizontal* creates divisions of space within the area of the frame that was once vacant just as Newman’s vertical bands do in his *zip* paintings but with the added element of temporality. It is this aspect of time that makes minimalism in music a particularly apt reference point for a reading of McLaren’s *Line* films.

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Music in particular underwent a process of simplification during the 1960s. Musicians were endeavouring, in the words of musicologist Jonathan W. Bernard, to “create a viable alternative to (what they came to see as) the needless and overly intellectual complexities of serialism” (Bernard 1993, p. 97). They were also looking for an alternative to indeterminacy (the idea that a performer has the freedom to interpret a composer’s work during a performance) in the work of composers such as John Cage, Milton Babbitt and Karl-Heinz Stockhausen. This led to American composers including La Monte Young, Terry Riley, Steve Reich and Philip Glass developing a form of music that became known as *minimalism*. This form of music is highly influenced by Eastern music and relies on static tonal structures, additive rhythms, textural consistency and transparency, and constant thematic repetition, most typically finding expression in compositions that unfold slowly over extreme lengths of time, without dramatic incident or developmental goal (Morgan 1991, p. 423). Another attribute is a reduced content, which is reflective of the influence of Eastern thought that advocated an ascetic approach to life. In addition, it is often marked by the use of loops, phasing and tonality.¹

The Fluxus group of minimalist musicians, perhaps best represented by La Monte Young, were the most significant in the transition to minimalism. Fluxus was an international movement of artists, composers, curators and designers that emerged in New York in the early 1960s and was involved in the exploration of cross-disciplinary interactions between traditionally disparate disciplines. In his 1972 book *Experimental Music: Cage and Beyond* British Minimalist composer Michael Nyman writes that the Fluxus composers “reviewed multiplicity, found its deficiencies, and chose to reduce their focus of attention to singularity” (Nyman 1972, p. 119). This pursuit of singularity in composition led them to adopt various strategies: the minimisation of indeterminacy, an emphasis on the surface of the work and a concentration on the whole rather than the parts of the composition (Bernard 1993, p. 97). These strategies are all present in McLaren’s *Line* films. As an animated entity imprinted on film stock, there is a certain lack of indeterminacy inherent in them. McLaren has determined what it is the audience sees in each projection of the reel. His use of the line moving over the flat plane of the screen in his *Line* films places an emphasis on the surface of the work, just as Newman does in his *zip* painting by attempting to remove any signs of brush strokes. The films are flat and two-dimensional in appearance. They are repetitive due to their reliance on the single thematic image of the line. Lastly, there is an emphasis on the wholeness of the composition. There is no discernible edit in the completed work. The movement of the lines appear continuous and unbroken for the duration of the films.

A newspaper article profiling McLaren during the 1950s, quotes McLaren as stating that his experiments with “pure design” were “to give the intellect a rest” (Commonwealth Today 1953, p. 18). This article pre-dates the *Line* films by a decade, and in many ways, the *Line* films are among his most aesthetically intellectual inquiries, yet one can see his point. By reducing the film to the straight line McLaren is freeing it from the burden of representation and allowing the film to appeal to the audience on an emotional and aesthetic level. This not only reflects the Eastern philosophy behind minimalism but also echoes architect August Endell’s ideas on beauty of form and the nature of the line at the end of the nineteenth century. Endell proposed the straight line to be “not only mathematically but also aesthetically superior to all other lines” (Endell, 1897-98, p. 60) due to its unchanging nature and constancy of direction. He also posits that particular lines

¹ The term phasing denotes the “effect achieved when two instrumentalists or singers perform the same musical pattern at different (slightly increasing or decreasing intervals of time, moving in or out of phase.” (Latham 2004 p. 139). It is closely associated with work of Steve Reich in compositions such as “Music for 18 Musicians” (1974-76), “Piano Phase” (1967) and “Violin Phase” (1967).

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have specific characteristics. Thin long lines invoke feelings of speed in the viewer, whereas a thickening of the width of the line has the quality of slowing the motion down as it takes longer for our brains to perceive a thick line over a thin one due to the increased amount of information to be processed. McLaren plays on this idea of the ability of the line to illicit particular emotions in the viewer, by introducing *actual* movement and rhythm into the lines through the process of animation. By speeding up the movement of the lines and presenting a multitude of lines on screen simultaneously in *Lines Vertical*, McLaren creates a sense of tension and unease in the audience, particularly as the lines appear, at times, to be skewed and off kilter.

Lines Horizontal explores the perceptual effects associated with the line even further. It came into being through McLaren's desire to see what would happen if a change of direction was applied to *Lines Vertical*. McLaren had the vertical lines from *Lines Vertical* printed horizontally using an optical printer. Although the essential components of the first film remain, it is, in effect, an entirely different film. The effect of the horizontal line on the perception of the viewer is remarkable. One gets the impression that the film is calmer than its vertical brother and that gravity has a role in the downwards movement of the line. The line seems to be fighting against the earth's pull in order to ascend the screen even though the rhythm of the lines is exactly the same as *Lines Vertical*. The washes of colour in the background create natural horizon lines and the lines are like waves lapping over the screen. The undulation of the lines in this film has a soft narcotic effect in comparison to the sharp and, at times, frenetic energy of *Lines Vertical*.

The rhythm and formal arrangement of all three *Line* films is very controlled and restrained. By virtue of limiting the length of the lines to the span of a 19" ruler and therefore the time that the lines remain on screen, McLaren was aware of the visual and rhythmic outcome of the film before completing it. As the films progress there is an additive effect as new lines are added to the composition. This additive arrangement has a counterpart in Philip Glass's musical composition "Music in Fifths" (1968) where there is a gradual lengthening of bars through the addition of extra musical material. Glass asserts that this is to diminish the likelihood of the listener recognising the new notes as separate elements (Glass 1987). They instead become integrated into the whole unit of the composition. This happens partly because the notes retain the same timing as the preceding notes and partly because they are, in actuality, simply repetitions of the notes that have already been used. McLaren's supplementary lines are, like the additional notes in "Music in Fifths," easily subsumed into the whole unit due to their maintenance of the characteristics of the original line. In contrast to Glass's approach to lengthening the timing of the bar to incorporate additional notes, McLaren incorporates additional lines into the same unit of time, increasing the compositional material rather than the timing. This does not diminish the additive effect but at times, due to particular characteristics of the line, which are outlined above, it gives one the illusion that the film is speeding up due to the volume of material present within the film frame.

Bernard suggests that there was a shift in emphasis from composition to arrangement in minimal art and music. He considers the term arrangement to "imply a preconceived notion of the whole" (Bernard 1993, p. 101) and the term composition to mean "the adjustment of the parts; that is their size, shape, colour, or placement, to arrive at the finished work, whose exact nature is not known beforehand" (Bernard 1993, p. 101). Glass notes that his ideas about the opposition between composition and arrangement and especially his ideas about musical time were acquired from his study of Indian music (Glass 1987, pp. 36-37). Indian music is formed from the assembly of a larger whole from a series of smaller values. This Eastern idea functions in opposition to the Western idea of dividing a particular musical whole into smaller values, like bar

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lines dividing up a staff. As I mentioned at the beginning of this paper, McLaren asserts that he based the form of his *Line* films on the structure of Eastern music (McLaren, 2006). There is a definite sense that these films are assembled rather than composed.

Bernard also asserts, in relation to minimalist music and minimalism in the plastic arts, “the simplification inherent in reducing the number of parts in a work also seems very much related to the spiritual, meditative qualities of minimalism: simplification in the service of the search for truth” (Bernard 1993, p. 105). In 1931 artist Hans Hofmann commented on the innate spirituality of the line, one of the simplest compositional elements open to McLaren.

The width of a line may present the idea of infinity... Tension and movement, or movement and counter-movement, lawfully ordered within unity, paralleling the artist’s life-experience and his artistic and human discipline, endow the work with the power to stir the observer rhythmically to a response to living, spiritual totality. (Hoffmann 1932, p. 373)

The minimalism and repetition of the lines in the *Line* films can be read as an expression of the infinite. There is a lack of devices common to western music, art and film such as contrast opposition, argument, climax, patterns of tension and release (although there is a quasi-illusionistic sense of tension in the first two *Line* films, partly induced through the musical accompaniments) and a sense of development that are lacking not only in the *Line* films but also in minimalist music and art. Bernard views this lack of devices and the use of repetition that are traditionally applied to the structure of time as lending minimalist music the impression that time has “stopped altogether” (Bernard 1993, p. 106). There are moments when McLaren’s films appear to reside outside of clocktime as the viewer is drawn into the metronomic rhythm of the lines.

In his essay “Aspects of Cosmological Symbolism in Hindustani Musical Form” Robert Sims writes that Indian music makes explicit the relationship between music and the spiritual with almost all facets of Indian culture founded on principles of the transcendent and unified by an “awareness of the cosmic hierarchy” (Sims 1992-93, p. 62). Renowned sitar player Ravi Shankar reinforces this interconnection between music and spirituality by asserting:

music can be a spiritual discipline on the path to self-realisation, for we follow the traditional teaching that sound is God - Nada Brahma: By this process individual consciousness can be elevated to a realm of awareness where the revelation of the true meaning of the universe - its eternal and unchanging essence - can be joyfully experienced. Our ragas are the vehicles by which this essence can be perceived (Shankar, n.d).

I am not suggesting that the *Line* films are exact visual manifestations of Indian music, merely that McLaren, like many artists and musicians, has appropriated certain philosophies and structures as a basis for his formal and aesthetic inquiries. As composer John Cage posits

The composers who today wish to imbue their music with the ineffable, seem to find it necessary to make use of musical characteristics not purely Western; they go for inspiration to those places, or return to those times, where or when harmony is not of the essence (Cage 1968-69, p. 18).

Even though McLaren and the minimalists may have turned East for inspiration they still remain within a recognisable Western aesthetic manifested through a minimalist one.

The comparison of McLaren’s films to minimalist music by way of traditional Indian music is not unfounded. A few years prior to commencing work on *Lines Vertical*, McLaren had spent some time in India running a UNESCO sponsored audiovisual course in New Delhi. This does

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not necessarily mean that there is an underlying Indian musical philosophy in McLaren's *Line* films but there are still notable semblances of Indian doctrine present in McLaren's films as noted by an Indian critic following the screening of the first two *Line* films in Indian in 1963:

There is an astonishing affinity between the Indian intuition about music and his [McLaren's] creative experiments and the clarification of that affinity, even if it be a coincidence, is a good way of beginning the study of his original contribution (Chaitanya 1963, p. 2).

Further to this, Chaitanya writes that the drone that runs throughout a piece of Indian music stands for "Being, the timeless, eternal, unchanging background of all things - their origin, sustainer and goal" (Ibid). The drone in Indian music is a constant unchanging pulse that undergirds the entire Indian musical structure. The melodic line of the raga in combination with the changing tempo of the talas (rhythmic patterns) is always looking "inwards" (Ibid) to the sense of unity and constancy created by the drone so that the music is simultaneously undergoing the dual processes of both being in existence and coming into existence.

Something similar is occurring in *Lines Vertical* and *Lines Horizontal*. Each line in both films generates an identical line; one line becoming two, two becoming three and so on until a multiplicity of lines oscillates on screen. Although the lines move in a linear trajectory, the structure of the films is in fact circular, just as in Indian music, which works in cycles, with the lines of the film returning to the single static primordial line from whence they came. The lines are, just like Indian music, at once undergoing the process of *being* and *becoming*.

There is no art form more associated with the *sublime* or transcendent than that of music so it is no great stretch for McLaren to compare his *Line* films to music. Since the earliest abstract animation of Hans Richter, Viking Eggeling and Walter Ruttmann, music due to its temporal and ineffable nature has served as the perfect paradigm for the structure of abstract film. The universal language of *absolute* or non-programmatic music (music that is not expressly about anything) not only provided the ideal conceptual basis for abstract animation, but the late nineteenth century formalist debate in music over absolute and program music also established a theoretical precedent for a discourse on abstract animation. Two distinct categories of the *absolute* emerged during the nineteenth century, the *formal absolutism* of German musicologist Eduard Hanslick, who considered the tone material of music to express the musical idea and the *spiritual absolutism* of philosopher E.T.A Hoffmann, who posited that music due to its intangibility could be utterly transcendent. Musical philosopher Lydia Goehr's makes the point that the distinction between the formal and the spiritual levels of music functioned on a worldly level but not on a spiritual one. If absolute music was allowed to function on both levels, it could be both transcendent and purely musical at the same time (Goehr 1991). This concept can of course be extended to the musical compositions of the minimalist composers but it can just as equally be extended to not only minimalist painting and sculpture but also the minimalism of McLaren's *Line* films. These three films can be read entirely on a formal level as an exercise in *pure* animation, the moving lines taking the place of the musical tones in instrumental music, but they can also function on a spiritual level, striving to express the ineffable.

The *Line* films should be taken as a series, each film building on principles established by the one that came before it. *Mosaic* the third and final film in the series is the synthesis of McLaren's experiments with the line in the preceding two films. It is essentially a rumination on what would happen if both *Lines Vertical* and *Lines Horizontal* were presented simultaneously on screen. McLaren was superimposing two pre-arranged films to create a new one. This film is not as straightforward as the other two. Although each film worked individually, confusion ensued

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when they were superimposed on each other, as there were simply too many lines on screen. The sense of wholeness and timelessness presented in the earlier films was eroded as the aesthetic changed from one of parity and asceticism to one that was overwhelmingly busy and moved away from the pared down structure of Indian music. McLaren became less concerned with the superimposition of the two films and began to focus on what happened at the intersections. Consequently, *Mosaic* became a film about what happens between the lines rather than the lines themselves.

McLaren was always pre-occupied with what happened between the frame lines of a film stating:

Animation is not the art of drawings that move but the art of movements that are drawn. What happens between each frame is much more important than what exists on each frame... Animation is therefore the art of manipulating the invisible interstices that lie between frames (McLaren, n.d.)


Mosaic is in many ways the most literal representation of this idea and is similar to the search for microtonal intervals, the musical intervals that exist in between the standard twelve notes of the Western octave. These tones had long been in use in Eastern music but their use in Western art music was a phenomenon that arose in the twentieth century as composers such as John Cage and La Monte Young began to look *East* for inspiration.

It must be noted that I have chosen not to discuss the musical soundtracks for the first two *Line* films. This is because I consider them to have been extraneous to McLaren's carefully constructed visuals. Even though these films have a musical structure one could argue that McLaren was more concerned with the design of the visual aspects of these films than the soundtrack. The soundtracks were composed on completion of the films and do not entirely reflect the minimalist aesthetic of the visual orchestration. Pete Seegar's soundtrack for *Lines Horizontal* in particular introduces patterns of tension where none exist in the structure of the visuals. The sound and image in *Mosaic* for which McLaren created his own soundtrack, on the other hand, coalesce into something greater than their parts and in some respects McLaren found his own method for reflecting the microtonality of the images in his musical accompaniment to *Mosaic* by engraving his sounds directly onto the optical soundtrack of the film stock. His essay "Animated Sound on Film," first published in a pamphlet issued by the National Film Board of Canada in 1950, demonstrated that McLaren had achieved an inordinate level of control over the production of the optical soundtrack. McLaren manages to capture microtones between tones just as he manages to capture the intersections between lines. Reflecting the constant shape of the small squares that make up the visual mosaics of the film, the glitches impressed on the soundtrack do not vary in pitch or length. The rhythm of both the visual and aural track comes from the successive addition of these mosaic images and glitches to each other over the course of the piece. In *Mosaic* it is the duration of the silence of the visual or aural notes that decreases or increases, not the duration of the actual note.

The best musical reference for this can be found in Philip Glass's rhythmic composition "1+1" (1968). This piece in many ways encapsulates the core of Glass's musical philosophy, acting as a blueprint for the structure of most of his minimalist works. "1+1" is designed for a single player who taps a rhythm on an amplified surface. This rhythmic ostinato that underlies the continuity of the composition is derived from two rhythmic figures of any duration that may be combined in any way. Unlike in "Music in Fifths" or *Lines Vertical* and *Lines Horizontal*, which I referred to

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earlier, there is no sense of the duration of the bar increasing in length. The structure of *Mosaic* almost seems to be an inversion of the other two *Line* films. The spaces between notes and points merely seem to shrink in duration.

McLaren's *Line* films demonstrate the development that the abstract animation has undergone in tandem with trends in music and visual art. McLaren's films embody many of the traits of Indian music and American minimalist art and music that were sublimating in the ether of the North American continent during the 1950s and 1960s. Reflecting a move towards an aesthetic that was simpler and more minimal, McLaren reduces his visual forms to the most basic expression open to him - the straight line. By concentrating on this constant and unchanging basic unit in *Lines Vertical* and *Lines Horizontal* and the points that occur between the lines in *Mosaic*, McLaren frees himself up to focus on specifically musical orchestration and allows the films to function on a purely formal level. At the same time however, all three films, due to their structures and philosophies drawn from the tradition of Eastern art music, can also be read on a spiritual level that makes a connection between the lines and life itself. *Mosaic* especially seems to have a particular spiritual resonance. Even though it also functions on a formal level, it is effectively a microtonal film. It is a film that is essentially looking at what is happening between the lines and by extension the point at which *being* and *becoming* converge. 

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