Two 'Machine' Films.

For a long time I have been interested in the paradoxical idea of machine vision – cameras that 'see'. What this really means is non-anthropic forms of seeing, forms that, while they embody agency, don't express it as such. The camera is a machine but for much of its life this fact has occasioned the well-known anxiety around how machines can be expressive, how photography and film can be Arts. Such anxieties pre-suppose the presence or evidence of human touch as a necessary condition for something to be art, and numerous filmmakers and theorists, from Louis Astruc, in his essay *Le Camera Stylo*, to Stan Brakhage, have advocated analogies between traditional mark-making tools and the handling of the camera to produce expressive results, as a way of legitimising film as an art form the equal of drawing and painting. But for me it is precisely the mechanical that is interesting for the way it tests the limits of what can be art and, by implication, human. The patterns produced by drawing machines, for example, may be beautiful but are arguably not art, or at least not very interesting art. However things become more interesting when the human is displaced into the machine, so that the machine is allowed to generate material that is guided by, but doesn't simply point back to, the human 'behind' the machine, in the way much of Brakhage's work supposedly does. In what follows I look at two films, which, while embodying intentionality, are non-expressive in this sense. The camera movements are neither anthropomorphic, as is the case with much artists' cinema, nor are they derived from the familiar repertoire or grammar of cinematic style. The pans and tilts of William Raban's *About Now MMX*, discussed below, don't function or even look much like their narrative cinema counterparts, despite the superficial similarities when considered out of context. This is even more so of the camera movements in William English's *Ex Library,* which are explicitly generated from the highly circumscribed interaction between

the subject matter and camera. In both cases, however, it is not the camera movements alone, but they way they are self-consciously generated and determined by external forces, as well as the more or less constant spatial compression that results from the use of long lenses, which combine to produce work that is visually distanced yet structurally bound into its subject, self-conscious and continuously reflexive. It's important to restate that this reflexivity is also non-anthropic, i.e., it emphatically does not point back to an agent, or express agency: agency, rather, is necessarily assumed, as a *sine qua non*, but is dispersed within the *apparatus*. Reflexivity arises from the mutual interactions between subject and filmstrip: this is where the buck stops. In these and other respects, both films have some obvious features in common with CCTV, the crucial difference being that CCTV cameras have no-one sitting behind them making decisions. This fact, which even if it weren't self-evident in the character of the footage that is generated, is important, again, even if there may be no discernible difference between footage shot by a CCTV camera and footage shot by a camera guided by a person. Where agency is assumed, the work will be understood differently, as intended.

William English's *Ex Library* (16mm, colour, silent, 18 minutes, 2006) records a crane and its driver during operations on a building site in central London. The film was shot over eighteen months from English's flat near Old Street, on the southern fringe of Hoxton. He used a Bolex camera with a 150mm telephoto lens to film the crane.

The title *Ex Library*, a pun that also refers cryptically to English's occupation as a dealer in publications on artists' film, comes out of a library's demise. The film was made during the period of transition between a nearby library's demolition and its replacement by a six story block designed to accommodate "key workers"; public servants whose modest salaries exclude them from the London property market. English films the crane, its cab, the comings, goings and workaday activities of its driver and, interspersed with this, the movements of building materials, ground workers and occasional birds.

The driver in his cab and the film camera are in a mutually defining relationship. Both are high off the ground: the film was shot from a 14th floor window, while the cab is a couple of meters lower, so that crane-cab and camera face each other across an uninterrupted expanse of air. Each morning, the driver's arrival at his work prompted English to his task. The camera follows the driver ascending to his cab, removing his florescent jacket, lounging in his seat, making calls on his mobile and smoking cigarettes. He works, lounges and sometimes sleeps in a variety of uncomfortable-looking positions, and frequently leans out of the front window to talk to workers below, waving his arms across each other the while.

He is a kind of homunculus inside a rectangular steel cranium. The condensation of his pattern of activities that arises through the film being shot at a frame rate many times slower than the normal twenty-four per second emphasises the repetitive behaviour in his routine, but we also become aware of his body language and his repertoire of postures: he comes to seem increasingly like the restless, twirling machine he inhabits, unavoidably bringing to mind Charlie Chaplin in *Modern Times*. At the end of the day he descends to the ground and the camera tilts down in response. This routine provides English with a series of repetitions that are subject to numerous, often dramatic, variations occasioned by the weather, time of year, stages in the building process, the seasonal character, quantity and colour of the driver's clothes and so on. Although it only constitutes a small amount of the total screen time, the regular up and down pattern forms a solid spine for the film's movements, against which the unpredictable and complex rotations of crane and shifts of light and shadow are contrasted. We also see occasional quasi-cutaways of straps billowing in the breeze, or bundles of building materials rising into the air, but as often as not these shots are filtered through views of the crane itself, or lead back to it by implication.

The crane appears to reach across to the camera, all but literally closing the gap between them, both implicating the camera in the construction of its spatial relationship with its subject, but also broaching the space between camera and subject, that space which is a sine qua non for photographic images, yet which is rarely acknowledged, let alone articulated.

The film's strategic parameters are tightly defined by a number of factors. The camera's tripod remained in a fixed position for the duration of the shoot, constrained by the window opening from which the footage was exposed. The crane's cruciform structure and the movements of its driver up and down his

access ladder determine the path respectively of the repetitive pans and tilts. As if to allegorise this strategy of mutual determination, the camera at one point carefully follows a crow that hops a rectangular path around a section of the crane's armature.

The film was shot frame by frame, determined by the speed at which the driver climbs and descends his cab, and by the speed at which the crane rotates. English did not use a rigid system to determine the frame rate, in the way that classical time-lapse films invariably do. Instead he deployed a flexible method in which the number of frames-per-second was adjusted in response to changing rates of activity within the field of view. Thus the film is further locked into the nature of the activity within the pro-filmic scene.

Insofar as the camera's options of movement are restricted by the crane's shape, movement and human activity therein, the film is triply determined; spatially, kinetically and temporally, by factors not under the filmmaker's control. In this respect it bears comparison with Chris Welsby's masterpiece *Seven Days* (colour, sound, 16mm, 20 minutes, 1974), a (Welsh) landscape film in which the principle structural decisions are similarly determined by factors outside the maker's control; density, speed and direction of movement of cloud, the sun's path across the sky, length of day. The key factor to be determined (arbitrarily) by the film-maker was the frame rate. This was set at a regular frame every ten seconds, in contrast to English's variable rate.

Chris Welsby: *Seven Days.*

Compared to the vertical axis, over which the camera tilts fully, the lateral movements are relatively restricted. English could have panned out along the length of the crane's jib when it was square on to the camera, corresponding to the way he covers the vertical axis. However, he almost never does this, confining instead the bulk of the shots to moments when the jib is facing or rotating more or less towards or away from the camera, that is, when foreshortening is at its most pronounced. He thus establishes a strong formal contrast between the vertical axis, which is fixed roughly square on to the camera, and the horizontal, in which the constant mobility of the crane-camera and the extreme foreshortening generates an interplay between shallow layers of skeletal crane, shadow, wall and windows. English pans, sometimes with and sometimes against the direction of the crane's rotation, thereby generating movements that reinforce the contrast with the up and down tilts. The work has its strength here, in the way it traces and retraces the inexhaustible complexity inherent in images generated from a single, fixed camera position, shot with a fixed focal length lens trained throughout on a small portion of space, interacting with a machine, which is lit by daylight and whose movements are confined to a single plane, thereby mobilising Siegfried Kracauer's question; "Does the spectator ever succeed in exhausting the objects he contemplates?" (1). There are also inadvertent effects to the film having been shot frame by frame -in time-lapse, by default- most notably the way the entire crane moves in the wind. Here time-lapse is both revelatory and transformative: revelatory in showing movements not visible at the eye's normal speed and transformative in the way slow swaying is turned into weightless trembling.

Towards the end of the film, a new vista is opened up by a sequence in which the crane's reflection is observed in water lying on the flat roof of the newly constructed building. This image is subsequently dried away by workers with brooms and rags before they move on to seal the roof with blowtorches. In this sequence, we switch from images produced by the interactions described above,

to images generated from natural phenomena –rainwater on a flat surface- to modifications to that image created unwittingly by workmen with brooms who are themselves part of the larger image created by English's camera. In both cases, images are generated by forces outside English's control.

The final three minutes or so is an extended coda, filmed with a wider, 75mm lens, in which the dismantling of the crane is recorded. At this point there is a shift into a relatively conventional documentary mode. In many respects nothing has changed in the crane-camera setup, but now, because the camera's movements are no longer locked into those of the crane, they regain the autonomy necessary for the treatment of the subject as a subject, as opposed to collaborator. The change from a 150mm to a 75mm lens doubles the field of vision, establishing the crane in its broader setting, and further re-describing it as a subject.

Yet even as we watch this more conventionally documentary film, we become aware that another crane, out of view except for one brief moment, is being used to dismantle the crane of the film's subject. The tight, mutually defining interaction between crane and camera has excluded off screen space up to this point, because the film has established its own self-defining spatiality, its own logical boundaries. The mutually determining dynamic of the film has a strongly centripetal force, pulling our attention inwards to the endlessly complex interplay of crane, light, shadow and human movements, background detail, seasonal variations of light etc. This negates off-screen space, not by literally denying its existence, but by making it irrelevant to the film's formal logic.

Now, however, the background –the broader urban density beyond and around the crane's field of action, comes into view. The film's dynamic becomes abruptly centrifugal, the crane's function as a crane in the larger urban fabric is contextualised, so that it is no longer an isolated mechanical phenomenon but a familiar tool (1). Just at this point, though, it is dismantled and removed, and

space that has hitherto been obscured is further opened up. Its division into parts, even as it disappears before our eyes, also introduces another level of complexity; we see aspects of the crane that we haven't seen, could not have seen, until now; new spatial configurations, operations and human-machine interactions. At this point, before the completion of dismantling that would allow the film a neat narrative ending, there is an abrupt cut to black.

The appearance of the second crane in the coda suddenly and dramatically emphasises off-screen space, which is literally enforced by the chains attached to the crane's parts that lead out of frame to the unseen crane. There is also a kind of parallel between the idea of the crane constructing and deconstructing the crane of the film and the recursive structure of films like Vertov's *Man with a Movie Camera* (a film that also has cranes in it, as well as other industrial machines), in which a second camera films the camera that also films the film. This structure is also enacted, in a slightly different way, in the section filmed in reflection, described above. Although these analogies can't be pushed too far, they gain some force when joined to a number of others that exist in the film; between the telephoto lens and the crane jib as extensible technologies that allow us to reach beyond our natural scope, between the film as composed of step-like frames and the steps, also rendered in a step like manner, of the driver up to his cab, and between the way the crane's movements determine the camera's, and the way the crane constrains those of the driver. The conjoined then separated (to be rejoined) pieces of the dismantled crane as unedited then edited shots, through to the aforementioned mutually defining structure of the film as a whole, in which two machines interactively generate images.

In much recent artists' film and video work the meaning of the image's referent is placed beyond question, its meaning already determined. The image is untroubled by epistemological difficulties, in order that its given-ness may free it to serve some other aim: poetic, allegorical, pseudo-ethnographic. *Ex Library*, by contrast, continues a tradition, exemplified by the kind of work initiated at the

London Filmmakers' Co-op, in which the pre-given meanings of representations are questioned. *Ex Library* adopts this position by contextualising itself as a critical-reflexive documentary. Its subject is the efficacy of its own generational strategies. The status of its representations as exhaustive yet incomplete, in the sense expressed in Kracauer's question, and as specifically determined by its own production strategies, is inscribed into its methodology. It is explicitly and productively inadequate, in that its incompleteness points to a fundamental truth about the documentary limits of the photographic time-based image.

In the more recent *About Now MMX* (35mm, 28 minutes, 2011), William Raban uses a similar camera set-up and shooting position to different, but related ends. Where *Ex Library* takes a close-up, tightly focused perspective, *About Now* is panoramic and expansive in both scope and ambition. It was shot from the 21st floor of the Balfron Tower, part of the Brownfield Estate, Erno Goldfinger's 1965 social housing project adjacent to the southbound approach to the Blackwell Tunnel in East London. The Balfron Tower is all but identical to the Trellick Tower, its more famous companion in West London, but the former has only more recently come to be appreciated, at about the same time as it is scheduled to be re-developed and sold as luxury apartments, thereby negating an impressive example of Goldfinger's commitment to affordable, high quality, social housing. As such it is one of a growing number of victims of London's disastrous housing policies (or lack of them) and symbolises the rampant marketisation of everything that embraces this trend: the nearby Robin Hood Gardens estate (1972), designed by Peter and Allison Smithson and also visible in the film (at 4'44"), is destined for a similar fate. This is relevant because Raban explores the visual manifestations of London's political geography. It teases out, by careful juxtaposition, the impact on the built environment of fevered growth around the financial centres of the old City, Canary Wharf and its environs. The roads and railway lines seen in the film lead out of frame to the off-screen spaces of the many new residential developments built to feed London's growing economy.

Like English's film, *About Now* is also concerned with work and its technologies, which includes vast office complexes that dominate the landscape, as well as the building sites and their cranes, transport networks and training centres, and the contrasting localities that lie nearer the camera, including, even, the painted grid on a school playground, where several girls walk carefully along its lines, as if in preparation for the world of work that lies ahead. This short scene also neatly symbolizes the way in which the built environment conditions the physical movements and behavior of its inhabitants: we build a city, or rather a city is built that is supposedly for us, but which limits and conditions us in innumerable ways.

Raban also shot his film mostly in time-lapse, at a rate of one frame every two seconds, using an Arriflex 3 camera with a range of lenses, from 500mm telephoto to a very wide angle 14mm lens. A geared tripod head allowed him to move the camera incrementally to create pans and tilts, but whereas the moves in *Ex Library* are constrained by the crane's form, Raban's camera feely crosses its vast field of view, tracing lines that scrutinize, dissect and connect the dense urban perspective into distinct formal and semantic strands, making and remaking the politically inspired contrasts between elements within the scene, from offices to local shops and school playgrounds. In this respect, *About Now* revisits the themes of an earlier short film *Sundial* (1990), (shot, broadly, from the reverse angle of *MMX*), which juxtaposes the Canary Wharf Tower with social housing and places of work, in a circumambulation of the Isle of Dogs, whose northern end is dominated by the Canary Wharf development which displaced the traditional working-class communities from the centre to the fringes of the island. *Sundial* is a highly condensed work –seventy two shots in sixty seconds- which relies on visual and audio montage for its dramatic effects, whereas *About Now* is more leisurely and measured in its pace, less dependent on montage for its impact.

The theme of the intrusion or persistence of nature that is present in *Sun Dial* is more insistent than in *About Now,* which latter contains a singular shot of a Llama on the Mudchute farm. A view of Canary Wharf at night is followed by a medium close up of the moon, followed by a wide shot over the City of London in which the dawn sky, with the setting moon also present, predominates. Subsequently we see a tilt down over a multiplicity of different kinds of densely packed buildings, including the Big Ben tower and the London Eye, far away in Central London, churches, office buildings, hotels, shops, housing of various kinds. From this chaotic mélange Raban then gradually teases out and connects the significant details.

The opening is followed by an isolated shot of sedges surrounded by water, a recurring image that establishes a loose pattern in which nature's immutable rhythms of light and movement alternate with the artificial ones afforded by electricity and automation. One realizes that electric light is perhaps the most important facilitator ever in the development of industrialisation, at least in relation to the 24-hour working demanded by modern Capital (4). As long as there is light there can be work, and the light show offered by the skyscrapers is impressive, yet not more so than the frequent appearances of the moon and the sun as they climb and set, often simultaneously, bathing the entire scene in a luminescence that is enveloping and powerful, essential yet poignant in its redundancy, for it reminds us of the more naturally determined patterns of life pre-electricity, which will probably never be regained. At one point there are three successive shots of the moon rising, and it has its own leitmotif in David Cunningham's soundtrack, a single high piano note that tolls over a slightly metallic background atmosphere. Additionally, there are several punctuation points where two or three shots of the moon appear in succession, first in context, then isolated, and thus as a thing in itself rather than a part of the urban landscape. This fascination with the moon connects with the theme of light, and at certain points, for examples when we see the moon setting as dawn breaks,

so that one kind of natural light gives way to the direct source of its own light, the rising sun.

The theme of shifting light conditions, arising from the film having been shot over several weeks in a variety of weathers, suggests a form of neo-Impressionism, but this is more than countered by the intense sharpness of the image, its sheer density of detail, which serves to stress the massiveness of the scene, the sense that every square inch is packed with matter, albeit matter in process. In this latter respect MMX shares some features with John Smith's *Slow Glass* (1988-91), which also focused on the material flux of East London, its shifting nature, as evidenced most graphically by the changing facades of pubs and restaurants.

It transpires that light is just one of a number of manifestations of energy. Subsequently Raban's camera seeks out smaller, isolated examples, such as the steam that issues from vents in the pyramid roof of the Canary Wharf Tower, the service shaft of the Balfron estate and numerous other sources, including vehicle exhausts. It's hard not to see this as demonstrative of the profligacy of energy use, the ditching directly into the atmosphere of useable resources. In a more pervasive sense the movements of people, machines and vehicles is striking: the scenes are animated by a manic kinesis, where seemingly everyone and everything is in frantic motion, an effect that is not lessened by the knowledge that motion is running at a faster than natural speed. This speed is also manifested in the theme of light, in that many of the speeded up movements, especially of cars and other vehicles, appear as phantom streaks, too fast to be perceived as objects.

Given Raban has an open field at his disposal the question of how to make sense of the chaotic disposition of shapes and organize material becomes paramount. Much of the time the camera makes connections across space, linking contrasting elements that adjoin each other in the compressed high angle view, but at other moments, similar architectural features are presented in succession, such as the point where the Canary Wharf tower's pyramid is followed by views of pointed verdigris church roofs. The camera returns

repeatedly to the same places, but at different levels of magnification, revealing further complexities that attest to Siegfried Kracauer's polemical question raised above in relation to *Ex Library*. The film's structure reflects this: there is no beginning, middle and end, rather an accumulation of material shot within a three-month period. Thus there is an acknowledgement that such a work could not be exhaustive in what it can reveal about its subject, in either the spatial or the temporal sense.

In his essay in the booklet published to accompany the film, Raban states that he: 'chose to work the geared head by hand rather than by computer, knowing this would give a slight 'roughness' to the movements, rather than a *glissando* effect in order to create a sense of an embodied camera –showing the audience that it is a person and not a machine moving the camera' (5). In effect, though, the result sits somewhere between the two. The slight stuttering of the camera creates movements, which, while they may evidence the work of Raban's hands, appear neither obviously mechanical nor human. Furthermore, the stuttering effect of the pans blends with the occasional strobing effect, familiar to cinema-goers, that results from lateral panning movements, so that it is difficult to isolate the 'human' from certain technical aberrations. However, the view-point of the camera, which is always downwards looking when observing people nearer to it, implies at least observation, if not the actual presence of an observer. It is as if

the observer is displaced into the technology, giving a sense of purposefulness to the camera movements. In this sense the film is not like CCTV footage where, putting aside the knowledge that one is watching CCTV, there is always the sense that one is seeing the point of view of an indifferent camera. In Raban's film one might be tempted say that the observer's point of view is identical to the camera's, as happens in narrative movies, except the effect is not psychologically the same, because it is not part of a conventional shot reverse-shot narrative grammar: it is not a 'look' in this context. The sense of the image's lying somewhere between the machinic and the human is reinforced by Cunningham's soundtrack, which is a subtle blend of occasionally occurring identifiable sounds, such as police sirens, and something that sounds like an urban atmosphere, but which isn't quite, so that one has to think about what one really is hearing, a rare effect for a film soundtrack.

1. Siegfried Kracauer: *Theory of Film*, 1997, Princeton University Press, page 165.

2. The idea of centrifugal versus centripetal derives from Rosalind Krauss's discussion of the grid in C20 Art, in *Grids* in The *Originality of the Avant Garde and other Modernist Myths* (MIT, 1985) and is deployed in relation to moving image work by Simon Payne in *Materiality and Medium-Specificity: Digital Aesthetics in the Context of Experimental Film and Video* (PhD dissertation,

Royal College of Art, 2007).

3. William English's radio programme, *Wavelengths*, on Resonance FM, is archived here, along with extracts from the film: www.williamenglish.com

4. See Jonathan Crary: *24/7* (Verso, 2013) for a critique of this phenomenon.

5. William Raban, 2015, *Materiality of Time*, London: University of the Arts London, page 7.