

THE BEAUTY OF THE FRAGMENT RECONSTITUTED IN THE GREAT WALL

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Abstract

Max Hattler's short abstract animations demonstrate an awareness of the form's historic 1920's European Abstract Animation precedents, is informed by the structurally focused minimalism of the 60's and re-tools pre-cinema toys. Yet his work speaks to the contemporary technological environment he occupies and experiences directly. His move to Hong Kong and his recent *Serial Parallels* is also a predictive probe into future media environments. Hattler's digital architectures are designed to make sense of the technological situation of speed and information overload which Vilem Flusser marks as amnesic and Marshall McLuhan identifies as an acoustic space readable through pattern recognition. His practice makes productive use of the flexible and modular qualities of contemporary digital image-making technologies for both production and publication purposes.

Keywords: Pattern Recognition, Technical Image, Vortex, Probe, Anti-environment..

The manual construction of images in digital cinema represents a return to the pro-cinematic practices of the nineteenth century, when images were hand-painted and hand-animated. (Manovich, 2001, p. 295)

Max Hattler is a German-born audiovisual artist and experimental animator, working at the boundaries between abstraction and figuration, aesthetics and politics. Hattler's practice retains a relationship to the spatial and material characteristics of proto-cinema forms which, for Manovich, return within the digital. This spatial emphasis is expressed through Hattler's formal and structural references to the Zoetrope, Kaleidoscope, panorama, mandala, multi-screen and global projection, the abstraction of the photographic image and the mixture of 2D and 3D forms. This analysis samples a selection of works from this sustained and extended experimentation with the animated image from 2000 to the present that sets the future predictive focus of *Serial Parallels* (2019) which occupies the second half of this analysis.

In *Collision* (2005) Hattler makes kaleidoscopic use of the American, British, and Arabic Islamic countries' flags, the shapes of Islamic patterning, and American quilts. The stop motion animation *AANAATT* (2008) was inspired by Bauhaus Constructivism. *Spin* (2010) is a mixture of 2D and 3D animation, where toy soldiers are animated in Busby Berkeley-like dance. His 2-minute loops *1923 aka Heaven* and *1925 aka Hell* (2010), respond to the work of French Spiritualist artist Augustin Lesage (1876-1954). *Sync* (2011) is reminiscent of John Whitney's famous animated mandalas. *Nidden Partikel* (2012) re-animates sand and water textures on widescreen, recorded during an artist residency on the Curonian Spit, a Lithuanian dune peninsula in the Baltic Sea. *All Rot* (2015) in split-screen explores the textures and rhythms of cameraless animation gleaned from a discarded miniature golf course. *Serial Parallels* (2019) animates the facades of Hong Kong high-rise residencies as kinetic strips of 16mm film.

Hattler understands his practice as an amalgam of the influences of his musician father, his abstract painting godfather, and his design-focused surrogate grandfather. Hattler habitually seeks out the "other". He left his native Germany to complete his tertiary education in London, obtaining a BA from Goldsmiths (2001), a Master of Arts in Animation from the Royal College of Art (2005), and a Doctorate in Fine Art from the University of East London (2014). He is now developing his teaching practice in Asia as an Assistant Professor at the School of Creative Media, City University of Hong Kong. This is a challenging personal trajectory that fits in neatly with Vilem Flusser's insights into the freedom of the migrant. Daily we now all negotiate images and spaces that migrate us all over the globe without leaving our studios, offices, and bedrooms. There is an ungrounded disconnect here, whereas the migrant's physical journey is etched viscerally into his or her body as direct experience. For the internet surfer, there is no such locatability. Such displacement is experienced superficially.

Abstract animation has the potential to open a kind of meditative or reflective space that takes you out of the world. Then, by feeding some representational elements back into the work, hints of meaning can be embedded. So there is this fluctuation between abstraction and everyday experiences, which can make you think or reflect upon parts of the every day in a different light. (Hattler in Torre, 2015)

As well as Flusser, Marshall McLuhan's concepts of probes and Anti-environments offer helpful scaffolding for framing Hattler's mobile practice:

New media are new environments. That is why the media are the message. One related consideration is that anti-environments or counter-environments created by the artist, are indispensable means of becoming aware of the environment, in which we live and of the environments we create for ourselves technically. (McLuhan, 1967, p.165)

McLuhan's concept of anti-environment is further locatable inside Michel Foucault's Heterotopia. Foucault used the term to probe spatial difference, as a place of "Otherness". Like a library or a cemetery, its contents are linked to slices of time, to be translated. Cinema is, naturally heterotopic, creating worlds that are other than the 'real world' but that relate to that world in multiple and contradictory ways. These are the links Hattler professes to foster.

Heterotopia is a useful term for a field like animation studies that has taken a documentary turn, to address phenomena and concepts where words or photographic truth fail to detail but still intimate a narrative trace. Hattler has used the term Abstracted Heterotopia (Hattler and Wardman, 2015) to suggest such an ambiguous space, approaching Foucault's heterotopic definition of Borges' writing to 'desiccate speech, stop words in their tracks, contest the very possibility of grammar at its source; they dissolve our myths and sterilize the lyricism of our sentences.' (Foucault, 1970, xix).

There is also a sense of trauma in Foucault's description, not overwhelmingly as a site of pain, dysfunction, or victimhood, but as an unsettled space or stage to be moved through where our senses, our body, and consequently our way of thinking re-adjusts, translates, adapts. The introduction of train travel provides an earlier example of technology's impact on our bodies during the Industrial Revolution's initial phase and the perceptual adjustments that were required.

The speed-up of train travel re-shaped looking into a more mobile perceptual process. Abstract and blurred shapes rhythmically passed by the train window, rather than the more settled narratives that could be constructed from the slower coach travel or a Sunday promenade. In horse-driven coach travel objects, animals, and people and their activities could more easily be hewn into story. The bodies and objects observed could be placed in interaction with one another. With train travel, there was no time to observe or narrate these relationships. You entered the train in one place and disembarked

somewhere completely different. Abstraction and the montage cut became a necessary part of daily life. Before bodies re-organized such perceptual effects productively, the trauma-induced medical condition of Railway Spine signified the inability of the body to deal with the procession of small concussions punctuating the train journey.

George Drinka suggested that 'the progressive symbols of society, such as the railways, seemed to be responsible for the breakdown of the human nervous system' (Drinka, 1984, p.122) For Wolfgang Schivelbusch, in train travel 'a process of decentralization, or dispersal of attention, took place in reading as well as the traveler's perception of the landscape outside' (Schivelbusch, 1986, p.68-9) There was a pre-reflective need to make perceptual sense of these cluttered, layered, blurred and reflective environments central to negotiating modern city life.

Jonas Mekas, writing in New York's Village Voice about an emerging underground cinema and the impetus to capture the hustle and bustle of city life that was part of its self-appointed brief, noted that 'Movement can now go from complete immobility to a blurred swish vision to a million unpredictable speeds and ecstasies.' (Mekas, 1972, p.97) Half a century earlier, pioneering Russian documentarist Dziga Vertov's manifesto-like writings on the Kino-Eye predicted this trajectory. 'Kino-eye makes use of every possible kind of shooting technique, acceleration, microscopy, reverse action, animation, camera movement, the use of the most unexpected foreshortenings- all those we consider not trick effects but normal methods to be fully used.' (Vertov, 1928, p.88)

Such an arsenal of effects is now available in every editing program, domesticating the avant-garde. Techniques or camera-based effects such as dust, film scratches, the blur, flash frames, lens and exposure flares, reticulation, processing mistakes, and light leaks – all qualities signifying the limits and nature of celluloid-based film making – are transported into menus and buttons as simulations in film editing software such as I-Movie, Adobe Premiere or Final Cut Pro. For

Lev Manovich, this incorporation marks the domestication of the avant-garde through the ascendancy of digital media. The avant-garde's politics and context are lost and/or hidden.

It is at this point at the cusp of a fourth iteration of the industrial revolution that Hattler's practice productively sits. What do Hattler's probes and anti-environments reveal about the productive way to make perceptual sense of this shifting technological environment? Where sampling became an important perceptual discipline for train travel, what perceptual strategies are required to make sense of the current technological situation? the following sampling of Hattler probes references back to earlier animation forms. This review concludes on *Serial Parallels* as an anti-environment.

For Vilem Flusser the proliferation of digital technologies marks the ascendancy of the 'technical image': 'Both the spoken and written word are no longer capable of transmitting the thoughts and concepts we have concerning the world. New codes are being elaborated. And one of the most important codes is the code of technical images.' (Flusser, 1988) In this new code traditional photographs document phenomena, whilst technical images communicate concepts, emphasizing structure ahead of content. Flusser's digital 'technical image' is a surface resisting history, the technological sublime conjuring a collective amnesia. (Flusser 2000, p.10) He insists that the technical image's inner workings must be laid bare: 'as long as there is no way of engaging in such criticism of technical images, we shall remain illiterate.' (Flusser 2000, p.16) Hattler addresses this amnesia by placing his practice in critical relation to earlier forms, naming his precedents, and making these connections evident in the work itself.

McLuhan stresses the importance of Pattern Recognition in information speed-up.

Pattern Recognition in the midst of a huge, overwhelming, destructive force is the way out of the maelstrom... and... The huge vortices of energy

created by our media present us with similar possibilities of evasion or consequences of destruction. By studying the patterns of the effects of this huge vortex of energy in which we are involved, it may be possible to program a strategy of evasion and survival. (McLuhan, 1979, 00:18:25-00:21:52)

Collision (2005)

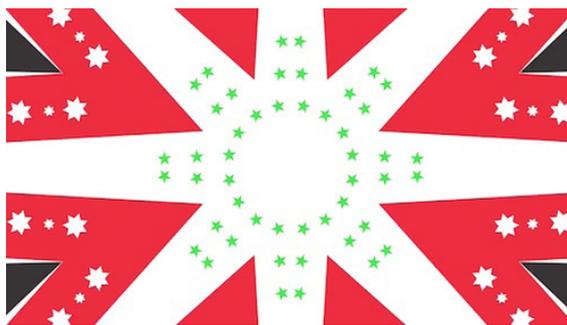


Fig. 1 Collision, Max Hattler, 2005.

In *Collision* (2005) Hattler makes kaleidoscopic use of the American, British, and Arabic Islamic countries' flags and the shapes of Islamic patterning and American quilts. A compact narrative of cultural discord surfaces addressing the incessant middle east conflicts of recent decades and beyond. Conflict is efficiently compacted into a graphic two-minute Busby Berkeley-like dance of nationalist symbols, directly imparting its political insights to a contemporary audience. Different audiences, dependent on their familiarity with the symbols and flags depicted also receive and read the film differently. Its efficiency and popularity can be calculated through Hattler's consequent one-minute brief from Amnesty international. This kaleidoscopic *Stop the Show* (2013) reprises the construction strategies of *Collision* deploying a graphic arsenal of effects to critique the negative impact of the international arms trade. *Collision* channels early Russian Constructivist work like El Lissitzky's poster art *Beat the Whites with the Red*

Wedge (1919), which also imparts a succinct political narrative through its abstracted graphics.

It is worth comparing these graphic war responses to Fernand Léger's *Ballet Mécanique* (1924). For Susan McCabe, *Ballet Mécanique* is about mutilation, 'as it re-conceptualizes the gestural body in time and space by both visceralizing and dissecting it.' (McCabe, 2000 p.68) Léger's rationale reads like the dissociative aesthetic of World War I shell shock and war neurosis 'the war had thrust me, as a soldier, into the heart of a mechanical atmosphere. In this atmosphere I discovered the beauty of the fragment' (in Stauffacher, 1947, p.11) Hattler's beauty is more compacted and graphic than Léger's, perhaps reflecting the greater efficient dissociative killing machines of modern warfare where a kill registers graphically on-screen before it's dissociative impact on the perpetrator's body is received as an after-thought.

AANAATT (2008)

The stop motion film *AANAATT* (2008) was inspired by Constructivism, and the work of Bauhaus artist, László Moholy-Nagy (1895-1946). His film *A Lightplay: Black White Gray* (1926) demonstrated his advocacy for the incorporation of industrial technology into the arts. Moholy-Nagy's kinetic sculpture *Light-Space Modulator* (1923-1932) which created the effect of photograms in motion, is documented in this film.



Fig. 2 AANAATT, Max Hattler, 2008.

'For László Moholy-Nagy, the photogram made visible new relationships of space, form and light.' (Salen, 2012, p. 242)

Though constructed photographically with real objects in a real room, *AANAATT* mobilizes the syntax of abstract animation. The fixed camera space is de-familiarized through mirror use which turns the room upside down and suggests a cubist space. This is achieved through a mirrored coffee table placed in the lounge room of Hattler's shared council estate London flat. The industrial objects which move, multiply and transform across the screen 'rear-view mirror' Bauhaus aesthetics. This database of industrialist objects and shapes was gifted to Hattler by a family friend, surrogate grandfather Hans Roericht, a German designer who taught Industrial Design at the important Hochschule der Künste in Berlin. Roericht had graduated from Ulm School of Design in Hattler's hometown, a school heavily Bauhaus influenced in its integration of systems thinking with aesthetics and technology. Roericht's collection of fixtures, shapes, and uncanny objects were accumulated over a dedicated lifetime to Bauhaus design. Similar stop motion techniques to *AANAATT* (2008) are used in *Shift* (2012), with a more industrial soundtrack, but always in tight synchronicity between sound and image accenting the image's materiality. What has shifted is the stage. With black background, the material surfaces of Roericht's database are more physically readable.

Heaven and Hell (2010)

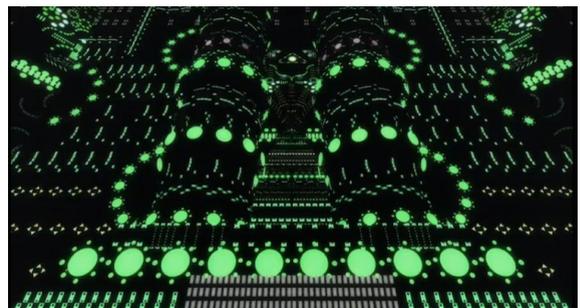


Fig. 3 1923 aka Heaven, Max Hattler, 2010.

Hattler's 2-minute loops *1923 aka Heaven* (2010) and *1925 aka Hell* (2010) were a response to the work of French Spiritualist artist Augustin Lesage (1876-1954).

Tightly edited sound and image correspondences give both a mechanical edge and add weight and materiality to both loops. Detailed symmetric clock-work components move constantly towards the camera suggesting an endless and continuous space. Each wipe suggests the opening of a door. Hattler finds a unique balance between a mandalic and mechanical quality in these trance-like loops. In *1923 aka Heaven* the abstract shapes move in and out of a Buddha or god-like figure flanked by two spinning mandalas, whilst in *1925 aka Hell* we move past what could be a crow's wings. Aesthetically it feels like we are inside and moving through Darth Vader's mask. There is also a flexibility to the presentation options for these loops. They can be screened next to each other separately or one after the other.

These works are designed to be viewed spatially rather than temporally enlisting viewing skills developed for painting. They present expansive and complex fields of activity that require the multiple viewings enabled by looping. Their structure is closer to a chant or a song than a narrative. 'Multi-screen projection tends to end the story-line, as the symbolist poem ends narrative in verse. That is, multiple screen, in creating a simultaneous syntax eliminates the literary medium from film.' (McLuhan, 1970, p.24)

1923 aka Heaven is based on Lesage's painting *A Symbolic Composition of the Spiritual World* from 1923 and *1925 aka Hell* from a painting of the same name from 1925.

Both loops were produced in a 5-day animation workshop in February 2010 with students in Viborg, Denmark. These works bring together the musical legacy of his father with his mother's spiritual interests.

Lesage is an outsider artist, part of Jean Dubuffet's defined Art Brut. His paintings are built from complex layered and repeating geometric structures that borrow from the way symbols and imagery are organized in places of worship such as early Christian churches. The chronicle from St. Remi in Reims from 905 B.C., for example, cites the stories told by the church's windows. The medieval glaziers translated illuminated manuscripts, model books, existing cartoons, and religious picture books such as the *Biblia Pauperum* into the expanding windows of the Gothic Church. Upon entering, the churchgoer was prescribed to 'walk all around the edifice and look at the stained-glass windows' (Deuchler, 1969, p.62) constructing a religious panorama, a shifting visual manuscript of the Church's narrative. Stained-glass windows stood in contrast to the cloistered monastery and its libraries, performing as a mass medium for the word of God to an illiterate and pauper class. For Abbot Suger, architect of the new abbey at St. Denis in the 1140's 'man could come to a closer understanding of the light of God through the light of material objects in the physical world'. (Deuchler, 1969, p.65)

Hattler grew up with such narrativizing. An example of such architecture is a centerpiece of Ulm, the large Gothic Ulm Minster (German: Ulmer Münster, built 1377–1891) in Hattler's birthplace. Ulm's gothic-renaissance town hall also contains a façade and murals and a 16th Century astronomical clock displaying zodiac circles and lunar phases.

Lesage's spiritual practice responds to such early envisioning designs. His systemic method has also been identified with automatic writing. Lesage filled in small areas of the canvas methodically section by section. He began in the upper right-hand corner, working his way across and down, with much of the canvas remaining rolled up. Such a modular, repetitive and automatic rendition of pictorial Non-Euclidean space is ripe for a digital makeover, in a technology in which Manovich identifies these qualities as its core characteristics.

Lesage's trance-like method has an affinity with the scrolls that Hans Richter and Viking Eggeling were producing at a similar time as precursors to their 1920's abstract animations, *Rhythmus 21* (Richter, 1921) and *Symphonie Diagonale* (Eggeling, 1924)

Richter and Eggeling's film scrolls were produced as early as 1915-17. The aim was for a series of graphic elements to lead the eye across the field from left to right. Such visual reading suggested the temporal elements of film and both artists later migrated this experimentation to film. This was research into a new language essential to the moving image. Viking Eggeling's scroll painting *Horizontal -Vertical Orchestra* was produced in 1919-21, and Hans Richter's *Fuge 23* in 1923. The scrolls were sequences of painted images on long rolls of paper that investigate the transformation of geometrical forms. These 15-meter length scrolls speak the same language as Paul Sharits' 16mm filmstrip collages.

In 1955 Richter went on to say that 'the question is: to what degree is the camera (film, colour, sound, etc.) developed and used to reproduce (any object which appears before the lens) or to produce sensations not possible in any other art medium?' (Richter, 1955, pp.15-16) Richter here draws the distinction between abstraction and the indexical quality of the traditional photograph. Hattler takes up this tension or dialogue in his anti-environmental probes into *AANAATT* and *All Rot*.

For me the relation between stop-motion and abstraction is an interesting one because it is, on the one hand, abstracted and removed from the everyday, but then on the other hand it is stop-motion – it still has that connection to the real world. (Hattler in Torre, 2015)

Spin (2010)

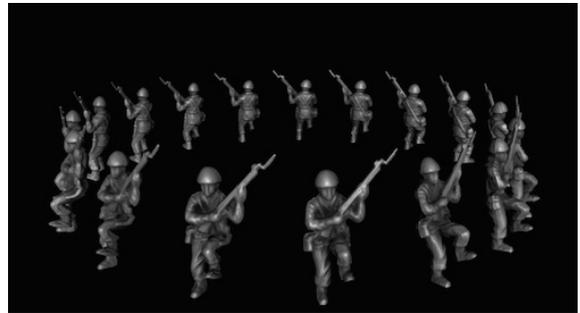


Fig. 4 Spin, Max Hattler, 2010.

Consider the phrase "It's a man's world." As a quantitative observation endlessly repeated from within a homogenized culture, this phrase refers to the men in such a culture who have to be homogenized Dagwoods in order to belong at all. (McLuhan, 1964, p.8)

In the hermaphroditic *Spin* (2010) a group of toy soldiers perform a series of Busby Berkeley-like dance moves. The graphic Kaleidoscopic effects employed in *Collision* and *Stop the Show* which delivered antiwar messages are here expanded into 3D animation. A team of 2D and 3D animators timed dance moves to a dance routine song from Busby Berkeley's *Dames* (1934). A classic ornamental feminine dance entertainment form is integrated with aggressive militaristic male roles. War flips into an entertainment spectacle. Where Norman McLaren's *Pas de Deux* (1968) used analog techniques to multiply the male and female bodies of dancers Margaret Mercier and Vincent Warren into an echoing dialogic dance, Hattler's digital dance response morphs male and female bodies into one Fordist Frankenstein-like clone. Identity morphs into nationalistic building blocks. There is an affinity here with Leni Riefenstahl's documentation of Nazi mass rallies and the expansive mathematical lattice choreographies of North Korean and Chinese stadium spectacles, like the Spring Festival Galas also available as live television events.

Historically the toy soldier has been a staple boyhood doll. Preceding industrial mass production the toy soldier was an object of privilege and power. Four thousand years ago Egyptian Prince Emsah was buried with his painted wooden infantry collection. Chinese Emperor Qin Shi Huang's buried Terracotta Army takes this to a whole other level. Hans Christian Andersen's fairy-tale *The Steadfast Tin Soldier* (1838) was inspired by the popular tin or lead soldier. Plastic soldiers became as disposable as the real. In the 1960s plastic series were offered as cracker box sets in cereal boxes, similar to the proliferation of baseball cards. Today the only remaining manufacturers of plastic toy soldiers are in China.

In *Spin* when the camera is not above but at the same level as the dancing figures, the rhythm is reminiscent of animation produced by the pre-cinema Zoetrope or Phenakistoscope. Although digital, *Spin*'s 3D physicality provides a similar experience to Pixar's physical sculptural Zoetrope (2010) that animates the characters from *Toy Story* (1995). Moulded figures are placed on a turntable and lit with a strobe light in sync with its spin. This technology has been further developed more recently by artists with the use of 3D printing technologies. Multiple drone displays now perform lattice-like choreographies in the night sky, superseding analog fireworks displays and bonfires.

Sync (2011)



Fig. 5 *Spin*, Max Hattler, 2011.

Sync (2011) is a hypnotic, ever-expanding, and contracting series of concentric circles, reminiscent of John Whitney's famous animated mandalas. The animation was published as a theatrical animation but also as a looping gallery installation projection onto the gallery's floor and further re-tooled as a full-dome projection. Like *Spin*, *Sync* mobilizes digital reconstructions of pre-cinema toys like the Zoetrope or a spinning top. Hattler's description suggests a metaphysical basis to this line of experimentation.

Sync is based on the idea that there is an underlying unchanging synchronization at the centre of everything; a sync that was decided at the very beginning of time. Everything follows from it, everything is ruled by it: all time, all physics, all life. And all animation. (Max Hattler in Ricco, 2018, p.88)

By sourcing John Whitney, *Sync* is probably the most metaphysical work discussed here. Emerging out of 1960's California, Whitney's works are considered the first computer-generated abstract animations. The slit-scanning animation system Whitney developed was built from discarded WWII technologies. Its slit-scan technique was taken up by Stanley Kubrick to develop the final abstracted corridor sequence in 2001. The mandalic *Lapis* (1966) with an Indian raga soundtrack by Ravi Shankar is trance-inducing and developed a psychedelic reputation. 'Whitney became aware that the images he could make and the way they behaved were directly related to the techniques he could invent.' (Le Grice, 1977, p.79)

'Only to a person who has expanded his consciousness, is ordinary experience expanded.' (Whitney in Youngblood, 1970, p.228)

***Nidden Partikel* (2012)**

The world in which they find themselves can no longer be counted and explained: it has disintegrated into particles—photons, quanta, electromagnetic particles. (Flusser, 2011, p.30)

Formal aspects become highlighted and enable a distancing effect from the everyday, which can serve as a way of questioning, undermining, and commenting back on reality. (Hattler, 2014, p.20)

Hattler's production method in *Nidden Partikel* (2012) sets up a dialogic formal abstraction between sound and image. *Nidden Partikel* transforms fields of sand particles and an untuned Cathode Ray Tube's hum into visual and acoustic noise. The photographic re-animation of dunes and sea waves was a similar process to that used to transform the surfaces in *All Rot* (see below). This dual abstraction strategy sets up a correspondence between grains of sand and the electronic cathode ray. Abraham Moles's definition of noise and signal stresses the sonic abstraction of noise. 'signal appears to be essentially an ordered phenomenon while crackling, or atmospheric, are disordered phenomena, formless blotches on a structured picture or sound.' (Moles, 1969, p.79)

The cathode ray tube (CRT) became the screen technology in the first phase of television manufacturing. In 1897 J. J. Thomson used the cathode ray tube to determine an electron's negative charge. This was a critical step in the development of the nuclear model of the atom, an invisible material artifact to the naked eye. Flat-panel display technologies such as LCD and plasma displays replaced the CRT in the 2000s and a correspondence between the pixel and grains of sand materialized.

Nidden Partikel is screened as a wide panoramic animated image.

***All Rot* (2015)**

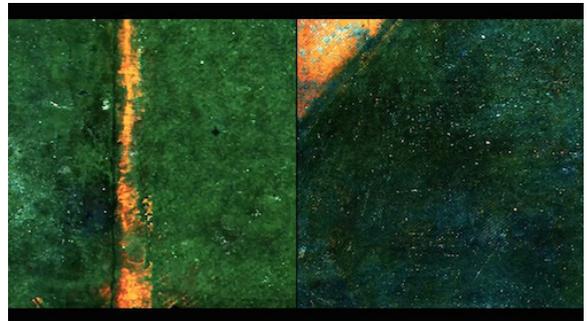


Fig. 6 *All Rot*, Max Hattler, 2015.

You shouldn't be looking at this as a continuity. Film frames are hieroglyphs, even when they look like actuality. You should think of the individual frame, always, as a glyph, and then you'll understand what cinema is about. (Smith in Sitney, 1974 p. 261)

All Rot (2015) is a two-channel installation that explores the texture of camera-less animation. It delivers the close-up grit, photographic marks of dust and scratches, the texture of photographic surfaces present in the photogram. This tactile technique is available in *Mothlight* (1963) and *The Garden of Earthly Delights* (1981) by Stan Brakhage. Printed moth wings and garden material are contact-printed directly onto the film surface, creating a dynamic animated photogram effect. Each frame of the film differs from the next creating an abstracted rush of movement. Hattler also connects the work back to Harry Smith's animation and the paintings of Barnett Newman. In a note on part 3 of Smith's *Early Abstractions* (1957): 'One of Smith's most significant achievements in technique in 3 lies in his ability to translate the topography of the frameless film strip into the language of the framed and projected image.' (de Bruyn, 2005) Hattler extends this translation of the 'technical image' into the digital realm.

All Rot was created during an arts residency at ArToll Kunstlabor near Dusseldorf in Germany. The residency building is set in a parkland fringed by mental health institutions, structured as high-security prisons. Hattler located an abandoned crazy mini-golf course, rephotographing its decaying surfaces in close-up. His digital re-animation from these larger textured photographs simulates the technique of contact printing. 'After photographing the golf course tracks in close-up, I proceeded to digitally re-animate the photographs into a short abstract sequence, enhancing the texture and worn paint marks through inverting and levelling the colour channels of the image.' (Hattler, 2014, p.45)

Sonic fields: The malleability of Sound and Image

When all information moves at the speed of light it literally translates itself into the auditory mode' (McLuhan, 1960 in Cavell, 2002, p.138).

Hattler collaborates with musicians for the soundtracks of his films. Hattler sets up a strong correspondence between the structures and movement of his images and the sounds in his film. This correspondence is evident in *Serial Parallels*.

Sound is very important in setting the overall mood of a repetitive, mechanistic urban space. The soundscape is based on field recordings of Hong Kong that are heavily modulated at frequencies that match the frame rate of the film to create a projector-like whirr, and sonically illustrate the multi-layered movements of interconnected, morphing concrete structures, moving machines for living. (Hattler in Baker, 2019)

Hattler also performs live at festivals, in art spaces, and in clubs in collaboration with other artists and musicians. These multi-platform publishing strategies demonstrate the malleability and mobility of the digital animation form, while retaining a material presence in both their content and delivery for the

audience. These live performances with other visual artists like Sune Petersen and musicians such as Jordi Baldó and Aarhus Jazz Orchestra are ongoing and contextualize Hattler's experimentation. Using an instrument developed with Sune Petersen, the Hattlerizer image loops are collaged together, transitioned, and layered with the speed and intensity of a musical instrument. Such speed is now possible with image technologies, enabling image and sound to be in dialog with one another 'live'.

Serial Parallels (2019)



Fig. 7 *Serial Parallels*, Max Hattler, 2019.

When images supplant texts, we experience, perceive, and value the world and ourselves differently, no longer in a one-dimensional, linear, process-oriented, historical way but rather in a two-dimensional way, as surface, context, scene. (Flusser, 2011, p.8)

Serial Parallels (2019) re-asserts Hattler's practice-based knowledge and connection to earlier formalist photographic, film, and animation practices. In social, economic, and aesthetic readings, *Serial Parallels* probes both historic and contemporary nationalist narratives. Hattler's website at the School of Creative Media in Hong Kong notes a 'focus on the potential of the abstracted moving image as a space of alternate ordering through which to challenge and rethink power relations.' (Hattler, 2021) The political tensions between

democracy and communism performed over the last decade in Hong Kong are readable in their structure. Tensions between public and private space, anonymity, and individuality are witnessed through this animated vortex.

This city has the highest rental prices on the planet, so for many obtaining a tiny, subsidised public housing flat is the greatest blessing, but it also means they might never be able to afford to move house again. (Hattler in Baker, 2019)

Serial Parallels abstracts Hong Kong's built environment, sampling its impact on the real and the everyday. Hattler extends in visual and sonic form research on the everyday's impact on public space explored by de Certeau (1984) and Henri Lefebvre (1991). In discussing de Certeau, Bode and Schmidt identify witnessing as an index of reality: "Art has been understood as a "witness" to social life, history, etc., very much in line with descriptions of photography as an "index" of reality." (Bode & Schmidt, 2005, p.81) There is a process of witnessing undertaken in Hattler's re-animated photographs of the political shifts in Hong Kong during Hattler's tenure and the contested power relations it brings into view. The recurring façade of *Serial Parallels* is readable through Lefebvre's concept of *abstract space*, defined as servicing capitalist modes of production yet open to contradictory views. Hattler mobilises an immobile abstract space to suggest the neo-capitalist forces now agitated onto the proletariat's body and the perceptual apparatus in hypervigilant and hyperactive forms relatable to trauma, surveillance, and accelerationism.

The high-rise building facades in *Serial Parallels* were assembled in Adobe After Effects from high-resolution photographs shot with digital cameras, the Hasselblad H4D-40, Nikon D800, and Canon EOS 5DS R. The film took 8 months to complete as many more sequences and photographs were constructed than eventually used. There is no traditional collage or pixilation. The film is constructed from 240 high-definition

detailed photographs gleaned from the Hong Kong landscape primarily by students Zhang Riwen and Iresa Cho. The search for locations radiated out from the City University of Hong Kong's vicinity, using Google Maps and undertaking random walks linkable to Guy Debord's Situationist "dérive". The malleable digital photographs' perspectives were adjusted, to flatten and standardise the image. This photographic archive was then re-assembled to animate and play with existent architectural modular forms. Hattler considers that the *Serial Parallels* photographs retain an indexical connection to the real despite this stretching, looping, and sampling. This strategy extends Hattler's photographic method executed in *All Rot* (2015), *Nidden Partikle* (2012), and *AANAATT* (2008) where the abstracted forms were placed in relation to their real habitats.

This experimental documentary form registers the historic and architectural ambiguities and hidden impacts on lived experience in Hong Kong as an anti-environment. Its abstracted looping mosaic of high-rise public housing offers a formal aesthetic trace of those expansive modular parades that celebrated the cultural revolution, public events that were and are played out in the nationalist public space of Tiananmen Square.



Fig. 8 10th Anniversary People's Republic of China, Tiananmen Square, 1959.

Tiananmen Square, where Mao Zedong proclaimed the People's Republic of China in 1949 (see Fig. 8), remains an expansive platform for mass regimented military parades and grid-like synchronous athletic spectacles (765 x 282 meters), from the cultural revolution Red Guards (1966-76) through the 1989 bloodletting to the Communist Party's 100-year celebration in 2021. Hong Kong's local 2014 umbrella movement responds in tense agitated relation to this tradition, to preserve its hybrid political system but also to defend the economic future of its participants. The graphic parades of Hattler's formal immobile mobilities address these tensile ambiguities in an a-political form. *Serial Parallels* trials Vilem Flusser's 'technical image' assertion that an image's structure conveys its economic, social and aesthetic value. Flusser stresses technology's core impact on history:

Every revolution be it economic, social, or aesthetic, is in the last analysis a technical revolution. If you look at the big revolutions through which mankind has gone, let's say the Neolithic revolution or the revolution of the bronze age, or the iron age, or the industrial revolution. Every revolution is in fact a technical revolution. (Flusser 1988: 9' 27")

Socially, politically and economically these public housing façades express a proletariat occupant's allegiance to the communist party's nationalist ideal. This Socialist belief has been historically and publicly asserted through hyper-organized military parades and athletic looping dancing spectacles on mainland China. Such marcher's and dancer's bodies embrace Ethel Voynich's celebrated *The Gadfly* (1897). Voynich pins such fidelity to a heroic, selfless, and true revolutionary commitment to the proletariat's communal ownership of the means of economic production. That is the state's official story, the façade. Underneath remains a trace to a redundant former Colony of the British Empire uncoupled in 1997 as a global financial, trade, and shipping hub into a special administrative region of China, under the contested principle of "one country, two systems".

Hong Kong is a contested space on multiple levels. *Serial Parallels* plays them out. Merging the past with the present, these images' technical precision morphs the 1960s cultural revolution's communal living ideals and its former colonial economic hub at speed into the expansive digital grid of a computer's CPU lattice-like form. Does such a computer interface signify the technical revolution that *Serial Parallels* marks? Both past and future are traceable in this agitated Janus-faced form, not as political rhetoric but through the technological tactics Hattler employs to construct and express this animated vortistic sculpture. This all at once-ness is a recognised creative tactic available to pre-digital forms. It is McLuhan's probe:

The probe is a means or method of perceiving. It comes from the world of conversation and dialogue as much as from poetics and literary criticism. Like conversation, the verbal probe is discontinuous, non-linear; it tackles things from many angles at once. (McLuhan & Carson, 2003, p.403)

Through McLuhan's historical re-reading of Ezra Pound and Wyndham Lewis's 1920's Vorticism, McLuhan developed his concepts of anti-environments and probes and also the sonic quality of the image under information speed-up. These tools are available to describe and analyse the contemporary technological contested space Hattler works on to construct *Serial Parallels*.

Speaking for the Vorticist movement in pre-WWI London, Ezra Pound insisted that 'The image is not an idea, it is a radiant node or cluster, it is what I can and must perforce, call a VORTEX, from which and through which ideas are constantly rushing'. (Ezra Pound, 1970, p.92). Vorticism was a key movement that brought Marshall McLuhan's thinking to Acoustic Space into view. His Counterblast (1970) "Media effects are new environments as imperceptible as water to a fish" (McLuhan, 1970 p.20) was an early mixture of graphic and textual probes in homage to Wyndham Lewis's Vorticist *Blast* Magazine (1914-15). 'You think at once of a whirlpool. At the heart

of the whirlpool is a great silent place where all the energy is concentrated. And there at the point of concentration, is the Vorticist.' (Wyndham Lewis in Hunt, 1926)

Auditory space has no point of favored focus. It's a sphere without fixed boundaries, space made by the thing itself, not space containing the thing. It is not pictorial space, boxed in, but dynamic, always in flux, creating its own dimensions moment by moment. (McLuhan and Carpenter, 1960, p.67)

Hattler acknowledges the influence of Michael Wolf's *Architecture of Density* (2012) photo series on *Serial Parallels*. *Architecture of Density* explored the repetitive formal abstractions of Hong Kong housing estates, the tensions between public and private space, anonymity, and individuality that Hattler further agitates. The fellow native German-born Wolf passed away in 2019. His series documented a Hong Kong of 2008-12, pre Hattler's engagement. Hattler's accelerated animated movements register those festering ambiguities that surfaced during his tenure, which the Umbrella movement brought to the surface in 2014.

Wolf's work has been connected to the detached formalism of the German Dusseldorf School. Bernd and Hilla Becher's 1960s typologies documented the architecture of industrialisation through the programmed serial accumulation of water towers, gas tanks, and factory facades, predicting the repetitive algorithmic strategies of internet image searches and grazing. Another photographer associated with this group, Andreas Gursky's large-scale landscapes, incorporating individual detail, like his turning point detailed photograph of the port of *Salerno* (1990) connect to Wolf's detailed documentation of contemporary Hong Kong. In Gursky's *Rhein II* (1999), the most expensive photograph ever sold at £2.7m, extraneous elements were digitally edited out, a strategy Hattler prohibited in *Serial Parallels*.

SP and Tango

It is productive to compare *Serial Parallels* with Zbigniew Rybczyński's important ground-breaking Polish animation *Tango* (1981). Both films sit at historic nodal points of technological change from texts to images and are considered here as historic exemplars of Flusser's "technical image". Both present their multi-layered narratives as a field or space of repeating, looping actions and forms. Their analysis discloses the economic, social, and aesthetic impact of the historic shifts in which they reside. The films bookend the shift from analog to digital storytelling available in different phases of the industrial revolution. Flusser incorporates that shift in his thinking on the "technical image" into a contested spatial form.

When images supplant texts, we experience, perceive, and value the world and ourselves differently, no longer in a one-dimensional, linear, process-oriented, historical way but rather in a two-dimensional way, as surface, context, scene. (Flusser, 2011, p.8)

In *Tango*, a series of 26 characters dance/move around each other in the confined space of a small room. 'Rybczynski orchestrates his entrances and exits with great precision.' (Noake, 1988) The characters are introduced one after the other, entering and leaving by one of the doors or windows. These movements repeat and accumulate, ascending to a crescendo of organized chaos. At the end of this climax of movement through the room, each character loop is withdrawn to empty the room. A purely 35mm celluloid analog project, *Tango* imposes the digital future of loops, automation, and modularity on the mechanical optical printer via the Boolean logic of Rybczyński's programming, all core characteristics at the heart of the emerging computer graphics field and critical to a constructive reading of *Serial Parallels*.

Klaus Schwab, from the World Economic Forum, suggests we are entering a fourth industrial revolution. (2016) The First

Industrial Revolution moved manual labour and “horse” power to steam and water, a long transition from 1760 to 1840 that incorporated shadow play and the magic lantern. The Second was the Technological Revolution from 1870 to 1914 marked by the development of electric technologies like the CRT, the networking of the telegraph and the railways, proto-cinema toys like the flipbook and Zoetrope, the birth of cinema and the film projector, photography, the Newspaper, and Fordism’s mass production line. In the Third Revolution, after the two World Wars, from the 1950s, electronics and information technology have automated production and along with the emergent advertising business and the modern gadget transformed family kitchen, an emergent television industry dominates everyday life.

The Fourth Revolution is “characterised by a fusion of technologies that is blurring the lines between the physical, digital and biological spheres.” (Schwab, 2016). Artificial Intelligence (AI) machines manage 3D printing, smart sensors, the industrial internet of things. Surveillance technologies have accelerated beyond the speeds of human perception. McLuhan has predicted that this acceleration shifts perception into pattern recognition and the acoustic realm.

Tango straddles the second and third revolution and *Serial Parallels* the third and fourth. Rybczyński envisioned work like *Serial Parallels* in 1997.

What we are seeing today, in this time of the ‘information superhighway’, is a move away from the photographic concept of ‘realism’ towards something much closer to what the image is at its origins. Although we can only catch glimpses of the ‘next’ version awaiting us, it has an - awful or beautiful? – name: digital computer graphics. (Rybczyński, 1997, p.183)

There is a technological crossover between these animations. After the Oscar-winning success of *Tango*, critics queried whether we are dealing ‘with a housing crisis or a

crisis of the cinema?’ (Benedyktowicz, 2014, p. 371). *Serial Parallels* echoes this core theme. In *Tango* ‘Not only are we tempted to hook one story into another, however briefly, but the shifting patterns of action invite a narrative reading of the piece as an abstract whole.’ (Slowik, 2014, p.288) Like a popular song, both films benefit from multiple viewings to unpack their minutiae. Where multiple bodies dance in Rubik’s Cube-like proximity inside the flat in *Tango*, in *Serial Parallels* the flats themselves translate this dance into a dynamic modular grid.

In *Tango*, Rybczyński had to precisely pre-arrange and pre-plan its complex layered imagery directly onto the 35mm film strip. ‘I had to draw and paint about 16,000 cell-mattes, and make several hundred thousand exposures on an optical printer. It took a full seven months, sixteen hours per day, to make the piece.’ (Rybczyński, 1997, p.184) While Rybczyński remains holed up in his bunker, Hattler’s planning involves a reconnaissance of the Kowloon neighbourhood to identify the prime sniper positions for his photographic team. This scouting itself re-enacts the state’s process of positioning its ubiquitous surveillance camera network. The digital shift enables Hattler to layer, stretch and loop his digital photographs, his ‘technical images’ with considered precision in post-production as a flexible after-thought.

Rybczyński’s meticulous planning and programming had to take place in pre-production. Rybczyński’s robotic manual labour is transformed, appropriated, and incorporated into Adobe After Effects editing and effects menus which are now at Hattler’s fingertips. Lev Manovich asserts that the avant-garde has been corralled and tamed, morphing into software; ‘In short, the avant-garde vision became materialized in a computer. All the strategies developed to awaken audiences from the dream existence of bourgeois society (constructivist design, new typography, avant-garde cinematography, and film editing, photo-montage, etc.) now define the basic routine of a post-industrial society: interaction with a computer.’ (Manovich 1999, p.3)

Operating the modular and layered interface of this editing software performs visual events and grids analogous to those presented in *Serial Parallels* itself. Where *Tango* pushed the limits of celluloid to flip into the prediction of a digital future, Hattler references historical traces to previous technological cinema and proto-cinema forms. While Rybczyński charts a loner visionary role into the new, Hattler pays visible respect to his historic technological elders in situating his innovative practice and style. Both strategies go against the grain and push the envelope of the contemporary status quo in which they are embedded, performing McLuhan's anti-environments.

The Filmstrip

It's the visual similarity of the film strips and the high-rises that I wanted to explore. Running a film through the projector creates movement. Treating a building in the same way also creates movement within the building, which is a strange thing. Solid steel and concrete take on at times almost fluid forms, malleable, flickering, shifting. (Hattler in Dudok de Wit, 2019)

As well as Wolf's high-rise catacombs of Hong Kong, *Serial Parallels* mines Paul Sharits' 60s and 70s experimental practice, particularly his assembled mosaic fields of 16mm filmstrips. Sharits 16mm films explored abstraction, looping, flicker, and afterimages coupled to looping sonic scores. Like Hattler, these films were often presented as multi-screen in the sculptural environment of gallery presentation, which enabled an audience to sample this work and manage the length of its reception. Sharits also presented visual fields of film strips and markings as technical commentary on his moving image works for such spaces. His *Frozen Film Frame Series* (1971-76) (76.2 x 190.5 cm) (Fig. 9) contained repeating 16mm film strips jammed between two sheets of Plexiglas. Sharits also produced ink-drawn coloured grids on paper for his *Frozen Film Frame Studies*, for example, *Frame Study 15* (1975).

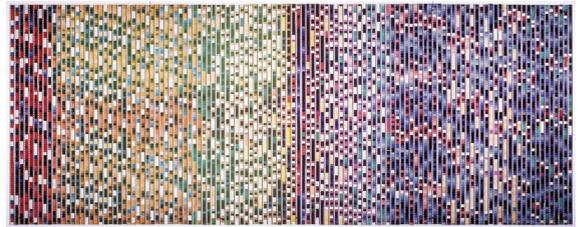


Fig. 9 Frozen Film Frame Series, Paul Sharits, 1971-76.

These diagrammatic fields indicate the kind of design strategies Rybczyński undertook to plan *Tango*. The filmstrip image is staple imagery in publications about early generations of avant-garde cinema, clearly documenting abrupt changes in these experimental animation 16mm films. In *Experimental Cinema* (1971) David Curtis included strips of Sharits' *Peace Mandala/End War* (1967) on page 123. *Abstract Film and Beyond* (Malcolm Le Grice, 1970) has filmstrips from John Whitney's *1-2-3* (1970). *Brakhage Scrapbook: Collected Writings* (1982) has all 190 frames of *Eye Myth* (1967) on the cover. The cover of MOMA's *Circulating Film Library Catalog* (1984) has strips from John Whitney films. Embracing both field and animated movement simultaneously to his audience, Hattler offers a further dialogic layer of analysis to the viewer.

The flicker films of Paul Sharits are structured by their chanting soundtracks, their frame to frame flickers, and repetitions. In *T,O,U,C,H,I,N,G* (1968, 12 minutes) positive and negative flickers of single-frame images provide a rhythm for a soundtrack that repeatedly loops the word "destroy". As a chant is designed to do, over time the "destroy" mantra drifts and morphs into other meanings. The film's image clusters are arranged rhythmically more like a musical score or computer script than a narrative. This is evident in the musical score-like *Frozen Film Frame Series*.

Sharits' focus on the structure, which becomes the film's content, is a dialogue between the audience's perceptual apparatus and the screen.

"I wish to abandon imitation and illusion and enter directly into the higher drama of celluloid, two-dimensional strips; individual rectangular frames; the nature of sprockets and emulsion; projector operations; the three-dimensional light beam; environmental illumination; the two-dimensional reflective screen surface; the retinal screen; optic nerve and individual psycho-physical subjectivities and consciousness" (Sharits, 1969, p:13)

Unprecedented Speed

At the 2018 Virtual Reality Software and Technology conference in Tokyo, I witnessed a keynote by Prof. Masatoshi Ishikawa from the University of Tokyo. His high-speed image processing technology exceeded the human perceptual apparatus, referred to as meta-perception: "Processing speed faster than human and total latency lower than human" (Ishikawa, 2018). He presented moving imagery from a maintenance van with this technology on the roof moving down a tunnel at a breakneck 100mph, filming at 1000fps, inspecting the tunnel for cracks. This patterned imagery looked like Thorstein Fleish's *Silver Screen* (2000) and approximated the textured patterning Hattler employs in *All Rot* (2014) and *Nidden Partikel* (2012). There is a trace of this speed's aesthetic impact available in a viewing of *Serial Parallels* when the eye picks up material hanging out of one of the flat windows as they flash by. It is there for only 1/25th of a second but such flashes register its content some of the time. In my film *Discs* (1982) I filmed my friend Paul Barille's record covers one frame at a time, approximately 1000 covers for 3 minutes. I have used it to play games with my friends. When you watch the image rush and you recognise one of the record covers through familiarity, you miss the next 4.

Ishikawa also demonstrated a robot hand holding a baseball bat, that hit a pitched ball without fail. He explained that with this processing speed it was now possible to build a robot that would hit a home run every time. For the computer's

perceptual apparatus, the ball was moving so slow that I imagined the mechanical arm could dance around it, ruminate to uncover the best move, and swing; plenty of time. For the computer, a second was like a human hour. Technology that delivers this ever-expanding processing speed is part of Schwab's fourth revolution. Experimental moving image works, like Fleisch's and Hattler's mark the boundaries of this expanding perceptual gap, between AI and human experience.

This train has left the station. Ishikawa's technology is part of Schwab's Fourth Industrial Revolution, as critical as Muybridge's photographs of human and animal motion illustrated the first industrial phase. Muybridge's animal locomotion studies in 1877 revealed the pacing of a horse's feet and, in reverse, identified the nature of a cinematic illusion; the persistence of vision. Paul Sharits' research focused on this perceptual gap: the time between each image, that produced a subtle flicker and pulse and kicked up afterimages as perceptual artifacts.

Speed has opened up an invisible superhuman vista for AI that migrates surveillance mining into an unprecedented pre-cognitive space. These technologies operate inside each of those high-rise flat windows at the speed of light, data mining every mouse click and keyboard hit of its inhabitants. This liminal presence is signified by the single frame artifacts of clothes, shadows and artifacts that half-register on the viewer's eye during the film. Shoshona Zuboff in her cautionary analysis of surveillance capitalism identifies the algorithmic forces at play inside the rooms of *Serial Parallels* facades.

One explanation for surveillance capitalism's many triumphs floats above them all: it is unprecedented. The unprecedented is necessarily unrecognizable. When we encounter something unprecedented, we automatically interpret it through the lenses of familiar categories, thereby rendering invisible precisely that which is unprecedented....A tragic illustration is the encounter between indigenous people and the first Spanish conquerors. (Zuboff, 2019, p. 12)

Conclusion

All the past that is vital, all the past that is capable of living in the future, is pregnant in the VORTEX now.' (Pound, 1914, p.153)

Max Hattler's anti-environments display their technological histories (Flusser). His practice contains the sonic tools to accommodate and negotiate an invisible pre-cognitive future technological situation (McLuhan and Ishikawa). *Serial Parallels*, like *Tango*, sits at a nodal point in the history of technological change and expresses an abstracted view of the maelstrom. Hattler's practice predicts, like the traditional tea leaf, the perceptual changes that the industrial revolution's fourth iteration imposes on our bodies.

This walk through Hattler's practice has mapped out the historic spatial forms which the artist consciously identifies in his work and has reflexively re-tooled for digital use. The most recent *Serial Parallels* goes one step further into the technological revolution's fourth phase. *Serial Parallels* brings back the redundant film loop and also documents and predicts a contested space inside our bodies that blurs the boundaries between the physical, digital and biological realms. Like the sampling method learnt to look out of a speeding train during the first phase of the industrial revolution, a new form of pattern recognition is required to productively and critically mobilise our perceptual apparatus in the new current situation. *Serial Parallels* trains the viewer the perceptual skills for unpacking the unprecedented technological space, a vortex being colonised by the algorithms of surveillance capitalism.

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