rest between each repetition. Gradually work up to ten repetitions.

Exercise 3. (Figure 17.)

LATERAL TRUNK STRETCH. *Step A.* This exercise is designed to stretch out the tightened muscles on either side of your spine. Start in the standard knees-raised position, but this time place your hands behind your head with your elbows flat on the floor.

Step B. Now, cross your bent right leg over your left, just above your left knee.

Step C. Using the weight of your right leg to force your

The Elements of Influence (and a Ghost)
Julien Prévieux

Work, management, economics, politics, control systems, state-of-the-art technologies, and the culture industry are the many 'worlds' that French artist Julien Prévieux's activities interrogate. The methods of recording movement and gesture developed over the last century and a half led to aesthetic results that recall the formal explorations of modernist art. Playing on this resemblance, Julien Prévieux transforms these records—originally produced for the sake of productivity, profit or surveillance—into pure form. Using map-making, dance, theatre, sculpture, video, and drawing, his work appropriates the vocabulary, mechanisms and modus operandi of the sectors by which it is informed to highlight their dogmas and excesses. Exploring eye-movement-tracking technology, the patent system, police crime mapping, Bernie Madoff's book collection and relics of crisis in this solo exhibition at the Blackwood Gallery, Prévieux highlights each mechanism's potential for play, creativity, productivity, and counter-productivity.

January 18–March 4, 2017
Blackwood Gallery

Curated by Christine Shaw

Exhibition at a Glance
In the Blackwood Gallery (Kaneff Centre)

Patterns of Life

HD/2K video, sound, 15:30 mins, 2015

Patterns of Life presents a history of the technological capture of human movement within the genre of a dance film. Julien Prévieux enlisted five dancers from the Opéra de Paris to develop dance choreographies based on six different experiments, studies, or technologies—presented in chronological order and accompanied by a narration—concerned in different ways with the task of extracting patterns from bodies in motion, and the way this data is applied to reorganize, control, and encapsulate individual and group movement and behaviour. From Georges Demenÿ's chronophotography of faulty gait in the late 19th century to the capture of human gesture in order to reconstruct and remodel it in search for greater efficiency within the factory regime to the "activity-based intelligence" generated by the US National Geospatial-Intelligence Agency, the film traces the genealogy of the quantification and visualization of bodily movement and the various ways of making sense of it. The video concludes by addressing the contemporary preoccupation with data mining, and the consequent shift from looking for things to looking for "patterns of activity"—the very form of analysis that underwrites "targeting" today, both in the military context of the "war on terror" as well as in consumer culture and advertising.

What Shall We Do Next?

"The future is already here—it's just not very evenly distributed," says William Gibson. Gestures used to activate new devices are patented—for example, the "slide-to-unlock" movement patented by Apple in 2011. Julien Prévieux started to collect these specific movements in 2006. His assumption was that the gestures patented today are the movements we may all have to do in the near future: patents as an archive of gestures to come. To date, Prévieux has created three sequences of *WSWDN?*: *Sequence #1* is the archive of gestures shown as a 3D animated short film; *Sequence #2* is a video made with six performers; *Sequence #3* is a set of live performances questioning the property of gestures. Featured in the exhibition at Blackwood Gallery is *Sequence #2* and *Sequence #3*.

What Shall We Do Next? (Sequence #2)

HD/2K Video, sound, 16:47 mins, 2014

Sequence #2 is a video made with six performers. They perform the diagrams found in the patents, considering patents as dance scores. Previeux takes ownership of these movements and frees them from their practical function through choreographic abstraction.

What Shall We Do Next? (Sequence #3)

Live performance in the Rotunda of the Innovation Complex
Choreography: Julien Prévieux
Performers: Allie Hankins, Syreeta Hector, Bee Pallomina, Kaitlin Standeven

Realizing that technology serves as a purveyor of prescriptive behavior that is increasingly a matter of private property, Julien Prévieux combines patented gestures such as the "pinch and swipe," Hollywood sci-fi interface gestures such as *Johnny Mnemonic*'s "swipe to activate," and the history of the copyright dispute over Martha Graham's choreography into a meta-dance performance that questions technology's use-function by exploring the poetic potential of movement.

Drawing workshop - B.A.C. of 14th district of Paris

Drawings by police officers Stéphane Dupont, Benjamin Ferran, Gérald Fidalgo, Mickaël Malvaud, and Blaise Thomas

Voronoi drawings: ink on tracing paper, 65x50 cm; Heatmaps: acrylic paint on paper, 90x75 cm, 2011-2015

In 2011 and 2015, Julien Prévieux organised drawing workshops with Paris police officers to teach them to draw crimes maps and visualization diagrams by hand rather than instantaneously by computer. Using the "old-fashioned" technique of drawing meant that these decision-making tools lost their primary function, because the results would always be finished too late. But loss at one level brought gains at others: the development of drawing skills, an opportunity to reflect on changes in policing and on new methods of management... and the production of some very fine abstract drawings.

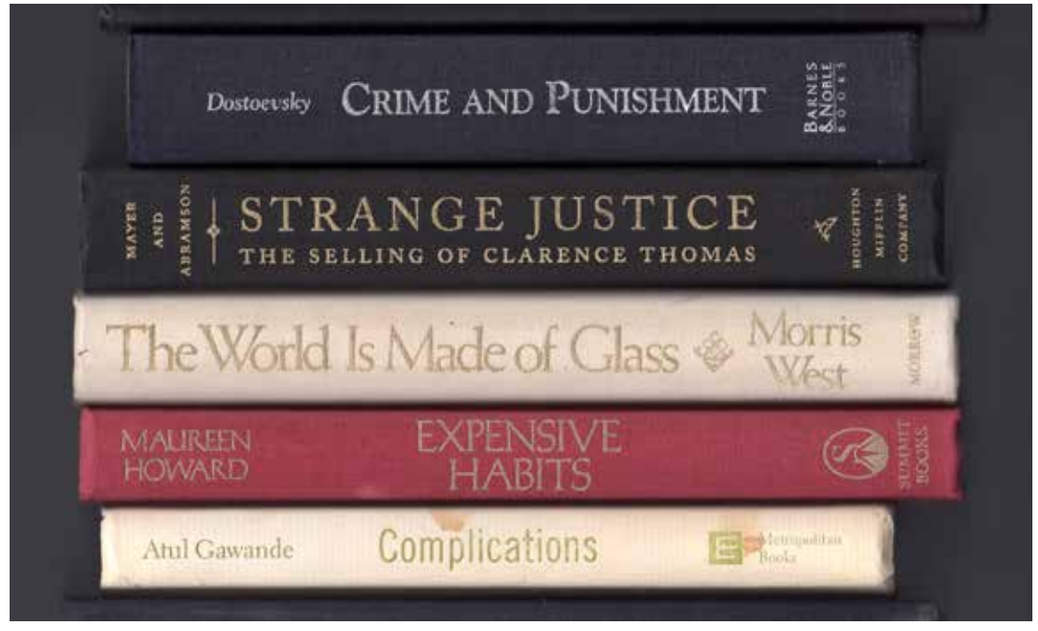
Forget the Money

Bernard Madoff's personal library, inkjet posters, variable dimensions, 2011 & 2017

Forget the Money is an installation based on the bookshelves of the (in)famous American businessman Bernard Madoff, convicted of embezzling 65 billion dollars—a crime that came to light during the 2008 financial crisis. In November 2011, the FBI sold Madoff's personal effects in an auction in New York. For some time, Prévieux had been looking for what might be called "relics of crisis," iconic residues of recent financial scandals that could give insight into our economic environment.

In *Forget the Money*, Prévieux presents approximately a hundred books—thrillers, financial guides, rich man's sports books, classics, art books, and auction magazines—which once belonged to Madoff. These books with their premonitory titles (*End in Tears*, *No Second Chance*, *The World is Made of Glass*, *The Investigation*, *White Shark*, *K is for Killer*...) seem to work like relics, borrowings from an ambiguous fetishism, based, obviously enough, less on their quality than on the fate of their owner. They are a little snippet of history erected as an absurd monument, which broaches the scandal from the wings, its lesser details appearing to be harbingers of the drama.

The images Prévieux assembles in *Forget the Money* highlight particular items from the collection, which become a kind of indirect portrait of Madoff, the system he built, and the social context that enabled his fraud. The installation traverses the smile of Reagan, the rules of fair practice in finance, a drawing by Christo he might have owned, a portrait of Marcus Aurelius, an enthusiastic description of Lehman Brothers found in a book on Wall Street, a glass stain, the stairs Madoff probably climbed at JP Morgan, a simulation of the day before the sun absorbs the earth, the golf course where he found his victims, exercises to relieve back pain, and a *Lamb*.



In the e|gallery (CCT Building)

The Elements of Influence (Modulation)

Infrared camera, yarn, hot glue, dimensions variable, 2017

In preparation for his exhibition at the Blackwood Gallery, Prévieux organized a workshop with a group of students, staff, faculty, researchers, campus police, and employees of the administration at the University of Toronto Mississauga. Using an infrared camera, he recorded the movements of participants' pupils while they were looking at his work in the Blackwood Gallery. Eye-tracking software was then used to produce diagrams that visualize the eye movements across the exhibition, with the final sketches reproduced in wool on the walls of the e|gallery. The original exhibition is therefore also visible in the e|gallery in the form of cryptic lines and a ghostly imprint— a translation or transformation of the exhibition made by the vision of the local community at the University.

On the Billboard (William Davis Building)

Cheating Anthology (Still Life)

Chromogenic print, printed on acrylic billboard, 72" x 108", 2015 & 2017

Julien Prévieux has turned himself into a collector of strange tools to be used for avoiding or getting ahead of the established rules. Amongst his collection are technical inventions banned in competitions: Polara golf balls, a double-strung tennis racket, a baseball bat with a cork core, spring heeled basketball shoes, and a high-tech swimsuit.

The still life presented on the billboard is a scene of a veritable "museum of cheating" in sport.

For each exhibition, the Blackwood Gallery commissions an artist to produce a work for the Bernie Miller Lightbox, a billboard-sized venue installed on the outside of the William Davis Building where the two wings of the building meet at the end of the "Five Minute Walk."

The New Graphic Method

Julien Prévieux

Today's world has been transformed into data. This phenomenon has emerged over the past several years alongside the growth of knowledge and power technologies, enabled by the capture and interpretation of movement. The expansion of networks, the large-scale employment of many sorts of sensors, and the explosion of the capacity to analyze and store information—all have been significant instruments in the move towards a world organized by the visualization of data. These recent developments are the latest part of a history whose key stages form the first part of this essay, along with a discussion of their political, sociological, economic, military, and artistic implications. This story diverges, repeats, and transforms itself, prompting different ways of considering movement-tracking techniques. The chronology of these techniques form the foundation of what we could call a "new graphic method," or an "extended" graphic method, to quote and update the title of a book by Étienne-Jules Marey published in 1885. Marey defined his graphic method as a mode of expression that would allow one to take in a massive amount of information at a glance.

Though devised as an efficient research method for Marey's own experiments, his graphic method also had the unintended result of opening up the potential for critical analysis and playful aesthetic possibilities. The second part of this essay explores the potential of this history and these techniques to set up different kinds of artistic experiments to discuss the consequences of our "schematic bodies" and create new forms—dance, drawings, sculptures, or situations. This "new graphic method" enables experiments aiming for the re-appropriation of the emancipating power of these techniques, at a time governed by data capture and the charting of our lives.

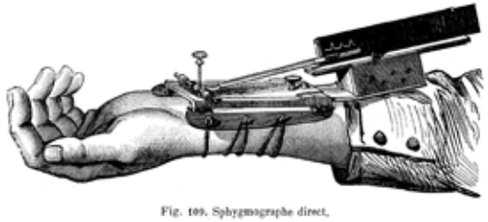


Fig. 109. Sphygmographe direct.

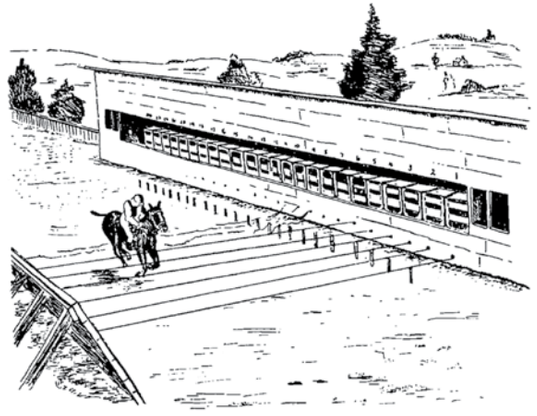
Étienne-Jules Marey, *Sphygmographe*, 1863.

A Timeline of the Study of Movements

1863. Étienne-Jules Marey, a French physiologist, improved the sphygmograph, an instrument that allowed the measurement of the pulse. He included a specialized apparatus to be placed above the radial artery that was able to magnify pulse waves and record them on paper with an attached pen.

The result was a sinusoidal curve drawn by the micro-movements of the artery. It was the beginning of Marey's experiments to make the invisible visible and to improve physiology with more precise instruments. Later he concentrated his research on the movement of the body, or what he would call the "language of life."

1878. Eadweard Muybridge, an English photographer who had emigrated to the United States, studied the movement of a galloping horse for the Governor of California. The story is well known: The movement of the horse was broken down into a series of fixed images. These results settled the debate once and for all, proving that all four of the horse's hooves leave the ground at once while running. To create the photographs, Muybridge set up a row of cameras with tripwires, each of which triggered a picture for a split second as the horse ran by.

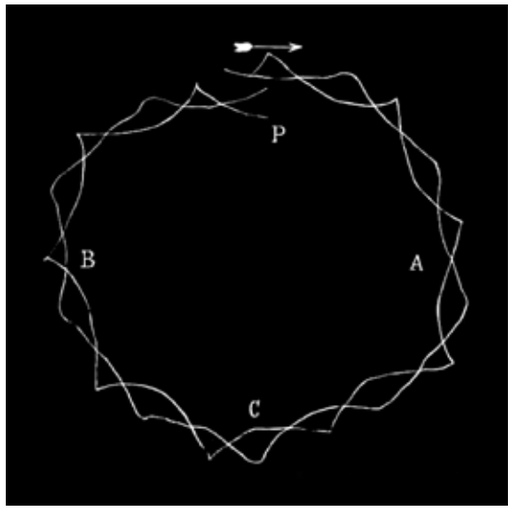


Eadweard Muybridge, *System to study the horse in motion*, 1878.

It was the birth of a technique of breaking down movement that Marey called chronophotography and that he would subsequently perfect.

These early recordings established two ways of looking at the "animal machine": bodies as the accumulation of isolated elements in space whose lines of movement can be traced, or bodies as many related entities whose links we are trying to understand. While one method for recording movement traces the subtle trajectories of the body, another breaks the movement down in order to make the relationship between limbs and intermediate postures visible. These two basic strategies for recording movement emerged during this period.

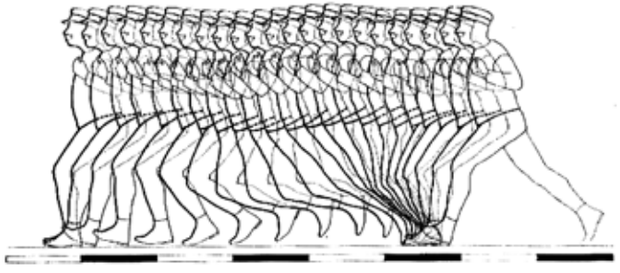
1885. *La méthode graphique [The Graphic Method]* by Étienne-Jules Marey was published. In it, Marey showed his famous photography gun which captured twelve images per second and which allowed him to photograph seagulls in full flight. He also described how his multiple exposure technique worked—what we would call today an *action sequence*, and which allowed him to capture all the movements of a runner within the same image. His assistant, Georges Demenÿ, recorded limps and lameness and sketched out a pathological physiology of walking. He described his arrangements thus: "We used incandescent electric lamps, whose photogenic strength had already been used by M.Soret from Geneva. We attached these lamps to the patient at points that defined the body's trajectory, such as the top of the head, the shoulder, the hip, the knee and the calf muscle. We operated under a red light so that the photographic plate only recorded the very bright points, thus we had a very clear print of the trajectories." The shutter stayed open so that the light sources could be transformed into "time-space ink," revealing the movement.



Jacques-Louis Soret, *Waltz (top view)*, 1886.

During the same period, Jacques-Louis Soret was looking to establish experimentally the origin of grace by precisely measuring the continuity, the symmetry, and the frequency of the movements of bodies. The Zephyr dance step, the polka, and the waltz were "chrono-photographed" to become beautiful sinusoidal curves, "indisputable" proof of the beauty of the movement.

Meanwhile, artists such as Degas and Seurat had started using chronophotography as a point of departure in their studies of ballet dancers. Degas also made a wax sculpture of a horse with all four hoofs in the air at the same time, called *Horse Trotting, the Feet Not Touching the Ground*, c. 1870s.



Étienne-Jules Marey, *The Graphic Method*, 1885.

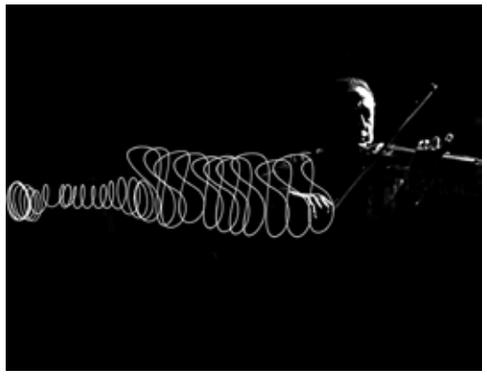
A second phase of Marey's study of the human engine opened at the end of the nineteenth century with the optimization of movement. It was first the army who were interested in Marey's techniques, and Marey extolled the merits of stooping while walking, which could increase the speed of soldiers. Once there was a technique for modelling movement, it could be examined and corrected in this way.

Around 1910, Lilian and Frank B. Gilbreth, who were both promoters of scientific management and rivals of Frederick Winslow Taylor (the leading American proponent of scientific management techniques for increasing worker efficiency), applied these methods of recording movements to workers. Each diagram produced by the "chronocyclograph" visualized the movements of a specific task: if the line was long and coiled, the movement lacked efficiency. Based on these diagrams, workers' tools and gestures could be optimized to improve productivity. Gilbreth sold his services to different businesses and his studies prompted unions to protest. How could these studies not be seen as a hidden way of increasing the volume of work, but for the same wage?

Frank Gilbreth, *Motion Efficiency Study*, 1914.

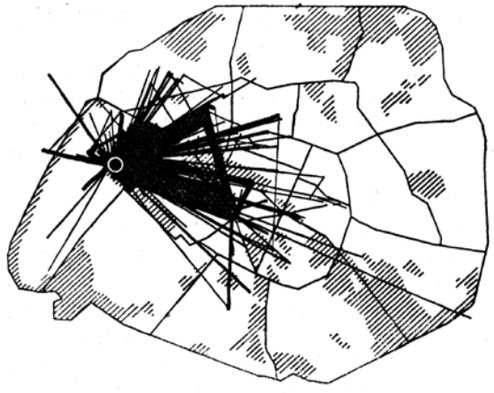
Recently, the philosopher Grégoire Chamayou commented: "this visualization procedure covers up a simultaneous process of erasing. In Gilbreth's images, the worker's body dissolves into an indistinct background halo."[1] And in Gilbreth's small models of recorded movements, the body totally disappears—we only see the lines of the movement.

In 1912 Marcel Duchamp painted *Nude descending a staircase No. 2*. The geometric forms and the colour palette were cubist but Duchamp introduced broken-down movement influenced by the chronophotograph. The painting was shown at the Armory Show in 1913 and caused a scandal. The body was mechanical and barely recognizable. It was seen as an affront to human beauty! Visitors threatened to destroy it. According to Marta Braun, Marey's impact on the visual arts was more important than the discovery of perspective during the Renaissance. This is maybe an exaggerated claim, but it is certain that the Futurists were heavily influenced by Marey's technique— so too were László Moholy-Nagy and even Man Ray, who in the thirties used a light pen to create self-portraits which he entitled *Space Writing (Self Portrait)*. This entangled light-writing seems illegible and brings to mind the surrealists' automatic writing. It was one of the first artworks using the technique of *light painting*.



Gjon Mili, *Jascha Heifetz*, 1952. LIFE Picture Collection/Getty Images.

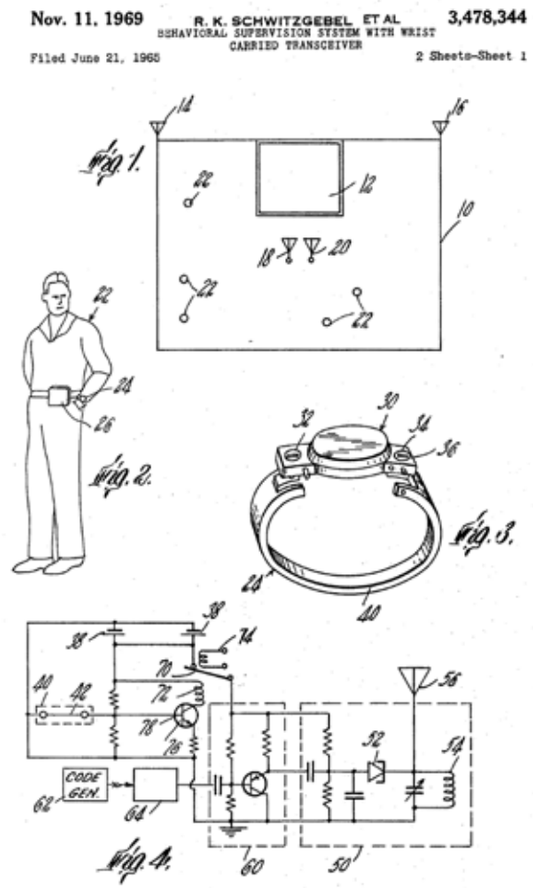
In the 1930s and 40s Gjon Mill, an engineer and photographer, used the stroboscope and long exposures for *Life* magazine. He captured the movements of Martha Graham and other dancers, jugglers, ice skaters, and musicians. At the end of the 1940s Picasso completed his famous "light drawings." And it was Gjon Mill who was behind the camera. He had been sent by *Life* magazine. Picasso only gave him 15 minutes before becoming completely fascinated by the result.



Paul-Henry Chombart de Lauwe, *One year of the movements of a young lady of the sixteenth arrondissement*, 1952.

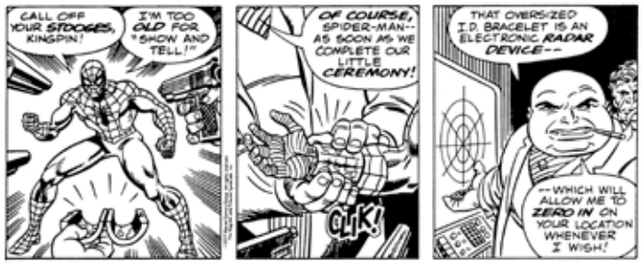
1952. If the recording of movement can be considered engaging for the forms it produces, it can also interest the social observer. Paul-Henry Chombart de Lauwe, an urban sociologist, gave a commentary on a map entitled *One year of the movements of a young lady of the sixteenth arrondissement*. He wrote: "the overview of these routes show us, in a remarkable way, the actual narrowness of the Paris in which each individual lives; relationships, friends, work delineate a geographical framework with a very limited area." And Guy Debord used this diagram and description as a counter-example for his *Theory of the Dérive*: "One of the basic situationist practices is the dérive, a technique of rapid passage through varied ambiences (...) In a dérive one

or more persons during a certain period drop their relations, their work and leisure activities, and all their other usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there."[2] In Chombart de Lauwe's map, the graphic depiction of movement serves as evidence for the radical critique of a bourgeois lifestyle that must be transformed.



Ralph Kirkland Schwitzgebel, *Behavioral Supervision System*, Patent published in 1969.

At the end of the 1950s, researchers began to use *radio tracking* to follow the movements of wild animals. At the same time, the Schwitzgebel brothers invented a system that allowed the tracking of the movements of an individual in prison or out on bail and to transmit the information on his activity. The signal was gathered by a missile guidance system modified for the occasion and which allowed the tagged individual's movements to be monitored on a screen. If the disappearance of the workers' bodies in Gilbreth's images was already a symbol, what should we make of having a prisoner stand in for a guided "missile"?



Stan Lee, *Spider-Man*, 1977

But it was in 1979 that electronic monitoring was made official by Judge Jack Love. The idea came to him out of the blue while reading a Spider-Man comic in which the villain attached a tag to the arm of the super-hero to follow his movements. Today approximately two hundred thousand tags are used in the United States.

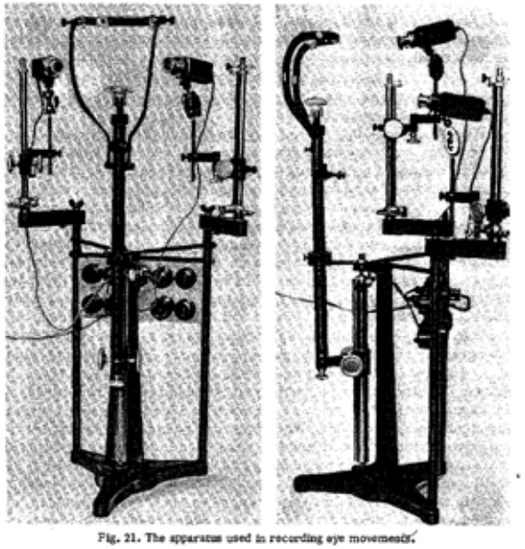


Fig. 21. The apparatus used in recording eye movements.

Alfred L. Yarbus, *Eye Tracker presented in Eye Movements and Vision*, 1967.

1960. Alfred Yarbus published *Eye Movements and Vision* which has had a profound influence on recent eye-tracking studies. He asked viewers to look at a painting, giving them instructions which directed their gaze. For example: “give the age of the people in this painting.”

If an individual’s thoughts can direct the movement of the eyes, can we reconstruct an individual’s thoughts from the movement of his eyes? This step was taken by marketing in the middle of the 1980s by using *eye tracking* to measure the effectiveness of magazine advertising. A few years later, we are now measuring individuals’ eye movements on web pages. But back to the 60’s…

Fernand Deligny, *Lignes d’erre*, 1973.

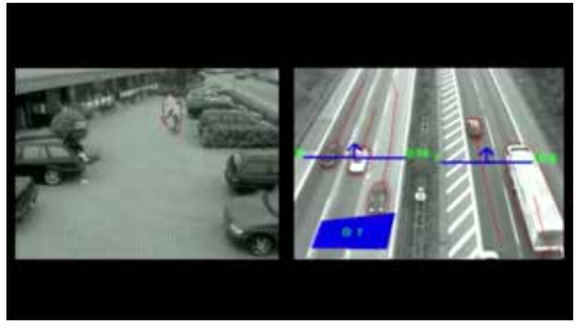
1968. The French teacher and educationalist Fernand Deligny founded a support network for autistic children in the Cevennes region. At a time when looking after autistic children was still poorly organized, he proposed an environment in which the children lived alongside “unqualified” adults (factory workers, agricultural workers, students). He asked these educators who were not educators to record the movements and gestures of the children. For ten years the adults drew maps in which they recorded their own movements then those of the children. These maps were not used to understand nor to interpret, but to see what the naked eye could not see; where the lines intersected indicated a reference point where commons were established, where improvements could be made to the organizational layout, or the effect the adults’ gestures had upon the children.

Fernand Deligny, *Lignes d’erre*, 1973.

Paul Verhoeven, *Total Recall*, X-ray skeleton sequence: Tim McGovern, 1990.

1990. *Total Recall* was the first failed attempt to use motion capture in a feature film. One of the film's production companies decided to use MoCap to create an animation sequence of moving skeletons for the scene in the airport with the X-Ray machine. They never received helpful data but even though they gave up using MoCap, the film won an Academy Award for Best Visual Effects.

2008. The German filmmaker Harun Farocki dissected the 2006 World Cup soccer final. Entitled *Deep Play*, this 12-screen work projected the official FIFA images of the match, diagrams of the player's movements in real time, as well as three-dimensional reconstructions of decisive moments of the game.



Harun Farocki, *Auge/Maschine (Eye/Machine)*, 2001.

The spectators witnessed an avalanche of data. Farocki commented: "So much human intelligence focused on a few hundred metres of turf! … They finally do with soccer what they have done for factories and battlefields."

In *Eye/Machine*, produced in 2001, Farocki brought together, amongst other things, the operational images transmitted by American intelligent missiles during the first Gulf War. He said:

> The shots taken from a camera that crashes into its target—that is, from a suicide camera … They were new and added something to the type of image that we may have heard about … I have called such images, which are not made to entertain or to inform, 'operative images.' Images that are not simply meant to reproduce something but are instead part of the operation."[3]

Thanks to pattern recognition and object tracking, these military visualization systems create operative images directed towards the technical achievement of power.

Curtis Garton, Slide from *Geotime Webinar Human Movement Patterns*, 2012.

2010. American intelligence services established the ground rules of what they call "Activity Based Intelligence" which consisted of following several individuals through social networks in order to establish a "Pattern-of-Life."

Letitia Long, director of the National Geospatial-Intelligence Agency wrote: "Today, intelligence-gathering is like looking in a global ocean for an object that might or might not be a fish. It might be anything and it might be important, but at first, we are not sure it even exists."[4]

These *unknown unknowns* can be discovered thanks to data analysis applied to movement patterns. The definition of "normal" that these systems rely on is purely empirical: it is informed by the machine on the basis of frequency and repetition. Any anomaly is therefore interpreted as an abnormality, creating a paranoid apparatus.

Marey's graphic method has evolved in just over a century and the procedures put in place to record and visualize movement have transformed it. Formal similarities persist, but the uses and objectives of these techniques can be entirely contradictory.

Tools for the Fabrication of Situations and Forms

This narrative of the development of a graphic method has formed the basis for a number of recent artistic experiments. In each, I have appropriated the tools and techniques of movement-tracking and the singular materials it has produced, in order to explore their potential as artistic forms.

Julien Prévieux, *Patterns of Life*, production still, 2015.

Patterns of Life

In an initial project that approached this history, the timeline outlined above was replayed in a film I co-wrote with Grégoire Chamayou and made with dancers from the Opera of Paris, entitled *Patterns of Life*. We used certain experimental protocols from the timeline to produce a film that we could call a choreographed documentary essay.

In this choreography written for the camera, we used descriptions of scientific results as choreographic notes or scores. In a dance class environment, we shared this history and put together a communal choreographic vocabulary inspired by the timeline: how does a man limp? What is abnormal behaviour? We translated the experiments of Soret, Marey, and Demenÿ into a series of tasks that could be danced by the performers. Alfred Yarbus' experiments measuring the gaze found their activation in the form of a solo in which a dancer literally manipulated the gaze with his hands. Elsewhere in the film, the obscure theories of American intelligence replayed in an absurd and cathartic scene.

Working with dancers in the form of workshops allowed a reworking of these learnings to better question them. While the final form is important, the artwork also functions as a framework. I had already used this working method in the creation of a previous work entitled *What Shall We Do Next?*

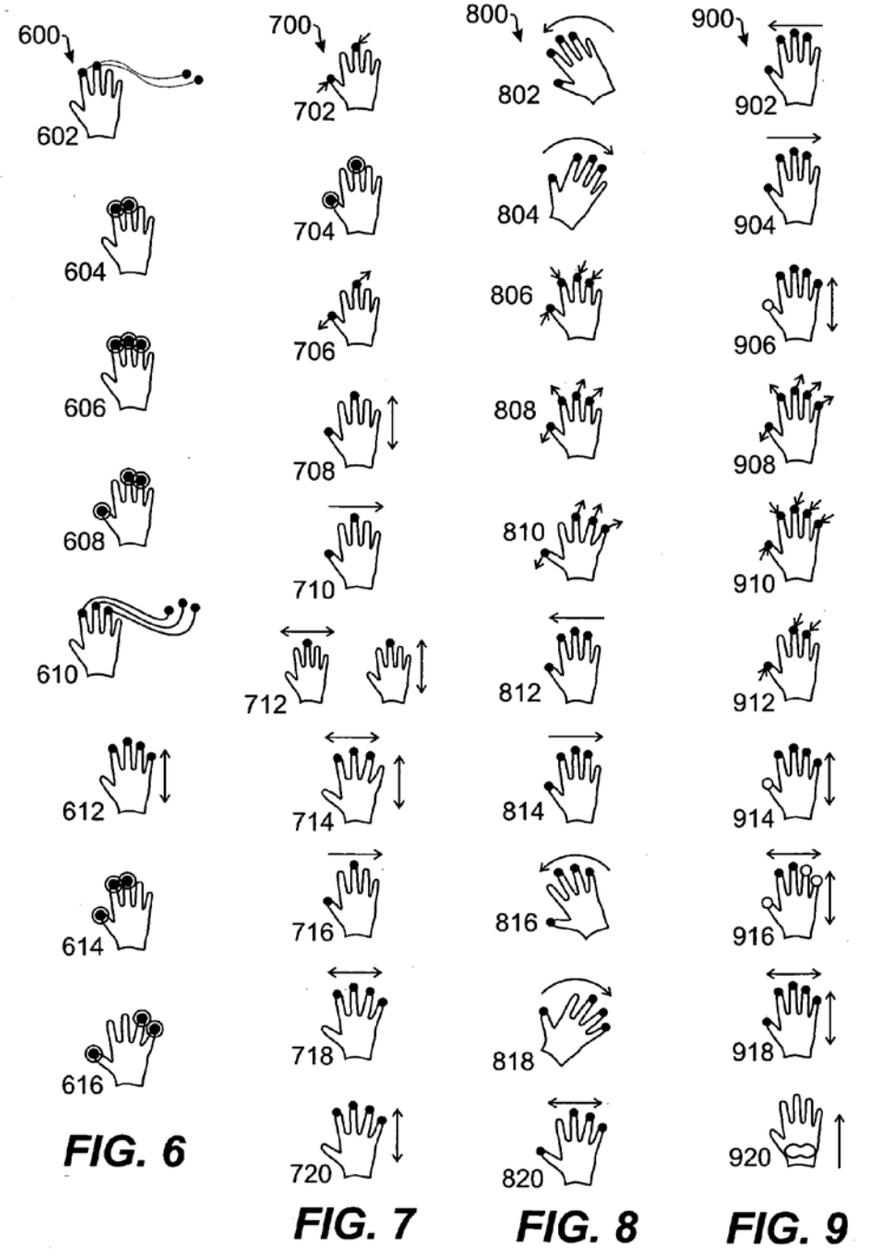


FIG. 6 FIG. 7 FIG. 8 FIG. 9

Extract of Apple's patent n° US 2006/0066588 A1, 2006.

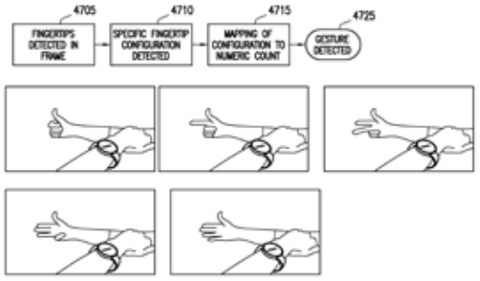


FIG. 47

Extract of Samsung's patent n° US 2014/0143785 A1, 2014.

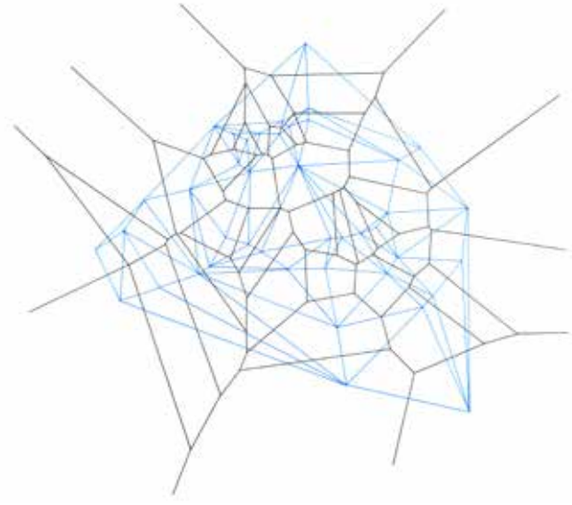
What Shall We Do Next?

WSWDN? is a series of works built on one another. In 2006, I started to collect patented gestures: when someone invents a new device or a tool, they must describe in a patent what the invention will do and how the user will interact with it. The gestures activating the various functions of the device are a full part of the invention and they have an owner, just like the device itself. This process led to the well-known controversy concerning the "slide-to-unlock" movement Apple patented several years ago. This gesture was used as proof that Samsung/Android had copied Apple during patent infringement trials that began in 2011. At first I was aghast by the idea that one can own such things and I started to collect these specific movements. My assumption was that these gestures, patented today, are the movements we may have to do in the future: patents as an archive of gestures to come.

Julien Prévieux, *What Shall We Do Next? (Sequence #2)*, film stills, 2014.

The first step of the framework for *What Shall We Do Next* was the creation of the archive of patented gestures and a 3D-animated short film, showing movements of hands and their corresponding patent numbers. Then I made a 15-minute film with six performers using all these gestures as performance notations, considering patents as dance scores. Furthermore, we worked with demonstration videos of several devices, some prototypes that never existed, and their stillborn gestures. The texts of the patents were performed, too. The film's voice-over changes the focal length on these questions, moving between our present reliance on technology and its place in guiding our future movements.

The third step was the preparation of performances highlighting other parts of the problem. I worked with facts coming from copyright history and most notably the Martha Graham case. In 1997, a judge ruled that Graham's dances belonged to the Martha Graham Centre, where Graham, as a choreographer, was in effect an employee of her own company. As such, she did not retain the rights herself. We made a performance with it. This legal case became a new metadance performance as part of *WSWDN*.

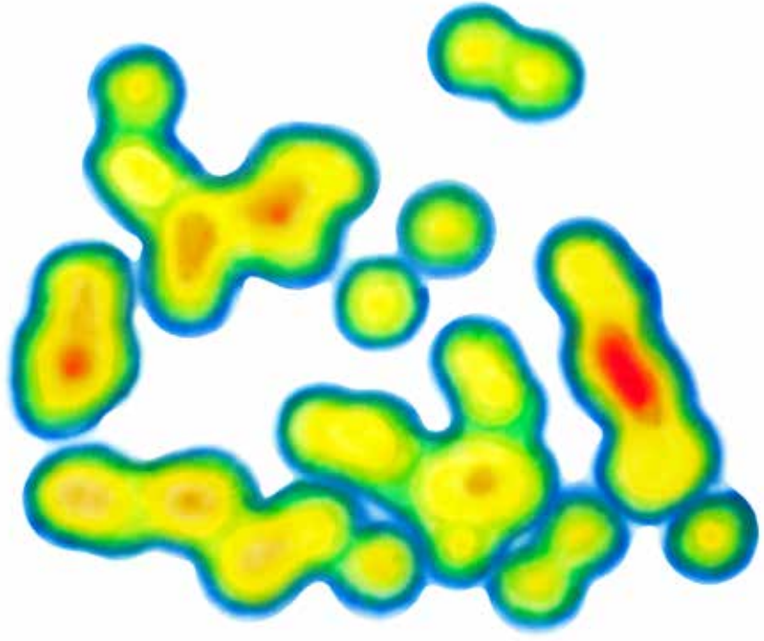


Julien Prévieux, *Drawing Workshop: Anti-crime Police Officers from Paris's Fourteenth Arrondissement*, 2011-2015.
Drawings by police officers: Stéphane Dupont, Benjamin Ferran, Gérald Fidalgo, Mickaël Malvaud et Blaise Thomas.

Drawing workshop - B.A.C. of 14th district of Paris

Another example of the working method of a workshop is a project I later ran with police officers. In 2011, after numerous discussions with two sociologists who were studying performance evaluation processes for the public services, I put in place a drawing workshop with four policemen. I gathered together a small informal working group, bypassing the police hierarchy. The aim of this experiment was to teach police officers how to draw, manually, what are called "Voronoi diagrams": crime maps recording recent offences. These diagrams create a spatial listing of the recorded offences; they make visible the volume of delinquency and are part of the new crime mapping tools integrated into the CompStat system (a performance management framework used by certain police forces including new statistic studies, new visualization tools, and new ways to motivate the officers). Designed to visualize offences in real time, Voronoi diagrams are supposed to optimize the use of police patrols. Usually, these plans are drawn up by computers: police on the ground feed in information to the server and the program automatically sends back an up-to-date visual for the police to consult. I suggested to the French police officers that they draw these plans by hand, taking the time to complete, one by one, the different stages of the algorithm. The exercise was slow and laborious, and required a high level of precision. The workshops took place in the policemen's free time—we got together at

their homes or at my studio for these “private” drawing lessons. With this traditional drawing method, the visualization in real time obviously suffered: the plans were completed far too late, the tool lost its function of optimisation. But what we lost in efficiency, we gained in other areas. Firstly, the officers were drawing in a regular and intensive way over several weeks. Moreover, with the profits of the sale of the works being shared equally between the artist and workshop participants, the officers became professional artists for a while. Secondly, the deep examination of the algorithm at the origin of the plans allowed a reclaiming of control over a technology that obscured its various working stages. The process of geometrical construction, made opaque by the speed of calculation of the computer, was revealed by the manual drawing. The hand-crafted dimension allowed the reclaiming of a certain know-how, where information technology had totally disconnected the tool from the collective experience. Finally, the initiation of such a situation encouraged discussions between the participants about recent changes within the police service and the introduction of new work methods. Where the officers were normally directed to follow instructions to the letter and to optimize their output, this project redirected their pursuits to a ludicrous point where crime mapping could become a Sunday leisure activity, a contemporary equivalent, dystopian and poetic, of making models out of matchsticks or knitting.



Julien Prévieux, *Drawing Workshop: Anti-crime Police Officers from Paris’s Fourteenth Arrondissement*, 2011-2015. Drawings by police officers: Stéphane Dupont, Benjamin Ferran, Gérald Fidalgo, Mickaël Malvaud, and Blaise Thomas.

Julien Prévieux, Exhibition view from *Datumo!* At FRAC Ile de France/Le Plateau, before the eye tracking workshop, 2013. Photo: Martin Argyroglo.

Julien Prévieux, Exhibition view from *Datumo!* At FRAC Ile de France/Le Plateau, after the eye tracking workshop, 2013. Photo: Martin Argyroglo.

Saccades, Fixations, and Altered Trajectories

I worked on an artistic experiment similar in certain respects, at the invitation of the Blackwood Gallery. We organized a workshop with a small group of people working on the University of Toronto Mississauga campus. Students, staff, faculty, researchers, Mississauga campus police, and employees of the administration were asked to participate in a quantification experience directly linked to the context. This time it was a question of measuring the visitors’ act of looking as they viewed the exhibited artworks in the Blackwood Gallery, thanks to the procedure of eye-tracking, as used by certain marketing departments. To do so, the pupil’s movements are recorded by an infra-red camera, software detects the movement and sketches a diagram which allows us to see the eye’s journey and focusing area over time—what they call in eye studies “saccade” and “points of fixation.” We transferred these lines to the walls of the e|gallery with spools of wool and hot glue. The final result was an echo of the Blackwood Gallery that prompted certain questions: what was the Economics student thinking while looking at the book collection of the famous crook Bernard Madoff? What, precisely, was the police officer looking at when he was in front of the crime maps drawn by French police officers? What could have been the opinion of the curator while looking at the image of a sculpture we were not able to ship and that is now only present in the show as a ghost? These hypothetical viewers and their gazes, mapped onto the gallery walls, resonate with Duchamp’s famous observation that the “viewer makes the painting.”

The artistic dimension of quantitative measurement techniques is never seen better than when we think of them as tools designed for the fabrication of form. In concentrating strictly on their particular visual qualities and discussing the realities they are building, we can profoundly modify the object: evaluation and optimisation give way to the creation of temporary communities, using these tools to better devise aesthetic experiences. This new graphic method consists therefore in proposing other uses of these technologies—activating their critical capabilities and liberating their playful and graphic potential.

1 G. Chamayou, “Une brève histoire des corps schématiques”, Jef Klak n°2, September 2015.

2 G. Debord, “Théorie de la dérive”, Internationale Situationniste #2 (Paris, December 1958).

3 Harun Farocki, “War Always Finds a Way,” *Contingent*, Volume 4, Issue 4, 2015, p. 54-60.

4 L. Long, “Activity Based Intelligence Understanding the Unknown”, The Intelligencer: Journal of U.S. Intelligence, vol. 20, no. 2, Fall/Winter 2013, p. 7.

Biographies

Julien Prévieux is a French artist. He has had solo exhibitions at Centre Pompidou (Paris), RISD Museum (Providence), FRAC Basse-Normandie (Caen), Synagogue de Delme Art Center, Domaine de Kerguennec Art Center (Bignan), among others, and was included in the 10th International Istanbul Biennale and the 2015 Lyon Biennale. His work has been included in group exhibitions at DiverseWorks (Houston), Haus der Kulturen der Welt (Berlin), Witte de With (Rotterdam), the Museum of Contemporary Art (Santa Barbara), and Kunstverein Hannover. Prévieux received the Prix Marcel Duchamp 2014 and is represented by Galerie Jousse Entreprise, Paris.

Performer Biographies

Allie Hankins is a Portland-based performer who makes works that toy with the destabilization of personae through uncanny physicality, layered imagery, and a biting wit while trying to suppress her contentious eagerness to please. She is an inaugural member of FLOCK: a new dance centre and creative home to Portland's experimental dance artists spearheaded by Tahni Holt, and a co-founder of Physical Education, a socially engaged dance and performance body comprised of herself, keyon gaskin, Taka Yamamoto, and Lucy Lee Yim. Physical Education hosts reading groups & lectures, curates performances, and teaches workshops nationally. Allie has been an Artist in Residence at the Djerassi Resident Artist Program, and Caldera.

Syreeta Hector began her career with Toronto Dance Theatre (TDT), and is currently an independent dancer and choreographer. She is proud to be a graduate of The National Ballet School's Teacher Training Program as well as the School of TDT. Currently, Syreeta is collaborating with Fauxhemian Films Incorporated, choreographing and dancing in short films funded by the Kingston Arts Council and Ontario Arts Council. She has been a faculty member at the Canadian Contemporary Dance Theatre for over 10 years, and is currently a guest artist at Rosedale Heights School of the Arts and York University. Most recently, she acted as dance captain and lead ensemble dancer on a musical film series called *Haunters: The Musical*.

Bee Pallomina is dance artist, performer, collaborator, and creator, currently making and performing in work for stage, installation, and film/video. Born and raised in Toronto, she has worked with many independent choreographers, and several dance companies including Dancemakers and Dancetheatre David Earle. Pallomina has appeared in short dance films by filmmakers Magali Charrier, Michael Downing, John Lauener, and John Oswald. Current long-term collaborative relationships include performance and creation with Public Recordings, Saskatchewan dance-artist Johanna Bundon, and multi-media artists Sean Frey and Lee Henderson. She also has an active teaching practice and holds an MFA in contemporary choreography from York University.

A member of Toronto Dance Theatre for eight seasons, **Kaitlin Standeven** was a collaborator in the creation of five original full-length works by Artistic Director Christopher House. During her time with TDT she had the privilege of working with many affecting artists, most notably Susie Burpee, Deborah Hay, Ame Henderson, and Heidi Strauss. Kaitlin now continues her work as an independent artist having recently engaged with creators Angela Blumberg, Marie-Josée Chartier, and Simon Renaud, and having toured with ProArteDanza and BoucharDanse. Kaitlin was the recipient of an OAC International and National Residency Grant, completed in 2016, and she holds a BFA from Ryerson University.

Acknowledgments

The Elements of Influence (and a Ghost)
Julien Prévieux
January 18–March 4, 2017
Curated by Christine Shaw

Staff
Christine Shaw, Director/Curator
Jayne Wilkinson, Assistant Curator
Petrina Ng, Exhibition Coordinator
Alison Cooley, Curatorial Assistant and Collections Archivist

Gallery Attendants
Manpreet Hayer, Sam Holmes, Maleeha Iqbal, Bonnie Ng, Christina Mordern, Margaux Parker, Jenna Robineau, Doaa Shaikh, Triveni Srikaran, Vanessa Zeoli

Installation Technicians
Dax Morrison, Matthew Tegel

Micropublication Design
Matthew Hoffman

Micropublication Printing
Colour Code Printing

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Cover: Julien Prévieux, *Forget the Money*, 2017, detail.
Pages 20-21, 28-29: Julien Prévieux, *Patterns of Life*, production still, 2015. Courtesy Galerie Jousse Entreprise.

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blackwoodgallery.ca

Gallery Hours
Monday - Friday: 12–5pm
Wednesday: 12–9pm
Saturday: 12–3pm

The gallery is wheelchair accessible.
FREE and open to the public.

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