Introduction

Eadweard Muybridge is one of the most famous and influential scientific photographers in history, pioneering the study of movement. His creation, the book of “Animal Locomotion” as well as his technical inventions focus on the movement of people and animals throughout a staged environment. His technical invention, the zoopraxiscope, helped him align and display his images as an animation, to the people of his time this invention was groundbreaking, it was almost as if his subject was moving directly in front of them. Muybridge explores photography within a scientific aspect challenging people’s perception of the world around them and even science itself.

A photographer who also challenges his audience through his approach to photography is Alexey Titarenko. His long exposure images of his hometown of Saint Petersburg tell a story of his own experiences and emotions, layering them together to create an artistically beautiful image with multiple different meanings communicated to his audience. This essay will explore both Titarenko and Muybridge’s approach to photography and the similarities and differences between them through their differing photographic styles. I hope to explore how each of these methods record time within the confides of a single frame and multiple frames, considering the role of photography, its relationship to time and its ability to record the truth. I have chosen these two photographers as I personally believe that they are the best representations of both sides of the manual camera. Eadweard uses his camera to somewhat ‘freeze’ time into one single instant whereas Alexey opens the shutter and lets time past. I like the contrast between their approaches and execution of photography and want to explore them further.

Analysis

Muybridge began his career making pictures on Yosemite, taking his camera and portable darkroom through rough terrain so he could reach the top and capture the landscapes. At the same time, controversy sparked between horsemen as to whether all the horses' hooves were off the ground at the same instant whilst galloping. Leland Stanford, railroad magnate, wanted to settle this debate, so hired Muybridge to photograph his prized racehorse at a gallop. Muybridge then constructed a track with multiple cameras lined up, each of these had wires connected and stretched across the track where the horse would gallop along, as the horse galloped across the track and hit each trip wire, the shutters on the camera closed, capturing an instant in time. Throughout history, horses have been depicted with all four hooves off of the ground, however they are drawn to have their legs stretched out to the front and to the back. Contrastingly, Muybridge's images proved something else. He proved that the feet do leave the ground at the same instant, however they leave UNDER the horse’s body. It was the first time that rapid motion has ever been portrayed in this way, fragments of time captured quicker than the eye could perceive.

Muybridge experimented with many of the scientific pieces of equipment of his time such as the zoetrope- originally discovered by William Horner, consists of a cylinder with vertically cut lines along the sides, the inner surface of the cylinder shows a row of sequential images that when rotated rapidly create the illusion of movement. The thaumatrope- invented by John Ayrton Paris is a Victorian toy made from a disk/card with a different picture on each side attached to pieces of spring, when spun rapidly the card rotates and the images appear to combine-and the phénakisticope- a paper disk with evenly placed, thin radial slots and a series of sequential images, that when rotated in front of a mirror shows a single motion image. He then went on to create his own device called the zoopraxiscope- a device that utilised a series of 16" glass disks that were hand painted in sequences- this was believed to be the very start of animation and filmmaking as this piece of equipment showed the rapid sequence of his still images, almost bringing them to life on the wall. All these combined make "The Horse in Motion" a monumental picture which for the viewer feels mesmerising to look at, as you feel like you're looking at a piece of scientific history. It makes the viewer question how Eadweard must have felt discovering this, as this lead to be one of the biggest discoveries of his time as well as developing into the technology we have today, because without Muybridge we wouldn't have some of the cinematography equipment we have today, he was the pioneer of animation and film mesmerising the viewer with his scientific discoveries. Muybridge has structured his Horse in Motion images to resemble a storyboard (still used in animation and filmmaking today) he has included a black like underneath to lead the viewers eyes image by image to show the sequence of the horse moving, making sure the viewer looks at the images in the correct order. These high contrast and slightly blurred images in this 'storyboard' gives the viewer a feeling of the horses' motion, like it is moving right in front of their eyes, making the image even more visually striking.

In 1887, Muybridge published a book called "Animal Locomotion" an electrographic investigation of consecutive animal movements which, after a year, consisted of 781 plates which comprise more than 20,000 figures of men, women, children, animals, birds, elephants ect all actively engaged in movement such as dancing, jumping, playing, running and much more actions performed in day to day life which "illustrate motion and the play of muscles". There were many keen and excited volunteers from all walks of life such as students from the University Of Pennsylvania to labourers, professors, models (both men and women) and even Philadelphia neurologist Francis Durham who took part in Eadweard's experiments as they saw it as a moment in history and want to contribute to his famous works. Within the "Animal Locomotion" study he also took pictures of animals (to support his works on "The Horse In Motion") at the Philadelphia zoological gardens using the same wire trigger set up as he used for his original experiment. Relating back to his human subjects, these sequences were

captured by many cameras surrounding the person performing said movement and used electric shutters and timers to capture the rapid movement of the subject. The plates Muybridge used for these experiments vary in dimensions from “12 inches high and 9 inches wide, to 6 inches high by 18 inches wide” to make sure his images were sharp and fit all of his subjects’ movements into the frame. One of these plates was a woman dancing titled “Dancer 1887” which captured my attention. These figures illustrating the movements, as stated by his book, are “re-produced from the original negatives by the photo-gelatine process of printing, without any attempt being made to improve their pictorial effect” as Muybridge wants to show the movement in its raw natural state as this book was intended to be an ‘atlas’ for human and animal movement and I think “Dancer 1887” is a good example of capturing this raw and natural movement of the human body. In this image we see a woman, alone, holding one side of her dress and twirling around to create the atmosphere that she is imagining herself at a ‘ball’ dancing. Her being alone makes us as a viewer feel like we are witnessing a private moment, as people experience moments like this without anyone else wanting to see them. This photo creates an atmospheric feeling of joy, for one, we can see the smile on her face as she is moving, and the jumping and dancing she is doing almost feels childlike and childish possibly symbolising joy within youth and innocence. All these combined can make the viewer wonder as to why she is doing this and why Eadweard chose to capture it. Maybe they believe Eadweard wanted to create a feeling joy throughout his experiments to show what he’s doing is also for his and his subject’s enjoyment and not just science, but it may also spark questions to the woman’s working background. They may wonder if she cannot afford a nice dress as she could possibly be working class, or if she has no partner to dance with and she is making a bad situation feel joyful. These thoughts and feelings prove that Muybridge’s images don’t just provoke interest within science, but within many different social areas too.

Researching more into motion and the power of the manual camera, I decided to look at a more modern approach to photography, such as long exposure pioneer Alexey Titarenko. His first experimentation with long exposure photography dates to 1991, during the Soviet Union collapse, producing images about the condition of the Russian people and the suffering they experienced. His two muses’ classical musician Dimitri Shostakouich and Dostovieski (specifically the novel white nights) inspired him to create his long exposure series the “black and white magic of saint Petersburg” (his hometown) due to Dostovieski’s novel containing references to melancholic romantic encounters of a lonely dreamer in saint Petersburg. Photography is usually thought of as a way of freezing a moment and capturing a “split second of time”, such as Muybridge. Alexey, instead of freezing a moment in time, opens the shutter, sometimes even for 7 minutes, letting time pass in front of the camera. Due to his shutter being open for so long, people describe his images as being a “window into the past” as it shows all the people that have moved past like in this high contrast image showing all of the people that have walked up this staircase. Alexey, throughout his experimentations

uses metaphors to communicate the links between the past and the present, stating that “Martial Bruce taught [him] that the only way to communicate and share what [he] was feeling is [through] the use of the metaphor” creating large amounts of different levels/layers that the viewer has to read, making the image more complex, as there is almost an element “hidden” in the image. He believes that by doing this more “layers” and depth is given to the image making it more complex for the viewer to understand, almost like there is something (as he explains) “hidden” within the image. These large amounts of metaphorical layers create a feeling of mystery, sparking interest into wanting to know more as, explained by the photographer himself, there is “no life without mystery otherwise life is boring”. For example, in Vasileostrovskaya Metro Station 1992 (crowd One) there could be a metaphor surrounding the challenge of life, such as the stairs representing that people need to “climb” to reach their goal. This is where Titarenko differs from Muybridge. Titarenko focuses his photographic experiments on feeling, represented by his own experiences and experiences of the people around him. He uses long exposure as a metaphor for life stating that “the images for me [were] a way to tell a story about the things I was [experiencing] personally”. Referring to Muybridge, his fast shutter images capture a split second of time, not allowing room for the multiple layers and depth that Alexey achieves. However, even though the main purpose of Muybridge’s photography is to show scientific evidence, similarly to Titarenko, they also tell a story of movement, but ones with less depth and complexity.

Conclusion

Both Titarenko and Muybridge show how important it is to tell a story, even if your subject matter and inspiration completely contrast each other. Muybridge’s Horse in motion images showed a groundbreaking story of multiple moving images turned into a short animation that changed science forever, as well as animation and filmmaking with his technological discoveries. He uses the term “story” in a way that presents a scientific discovery to his audience rather than something personal, he is taking pictures for the likes of science and other scientists either from his time or for people to view in the future, to further his studies in motion with the technological advances in science. His images show what the eye cannot see, such as the horses' rapid movements. Without photography we cannot see these quick and brief moments furthering its importance to science as well as human curiosity, without Muybridge's experiments and inventions the evolution of the manual camera would never have progressed, and this may have affected the technology we have today. The camera has had a profound impact on the way we understand the world and how things work, providing proof with such accuracy, way beyond the capabilities of the human eye. The camera has also become a tool we invest huge trust in, in terms of what it records, we not only believe but rely on.

Contrasting to the work of Muybridge, Titarenkos images have a deep contextual meaning, not just to the audience, but to him as a photographer. Taking pictures in his hometown already creates a 'homely' feeling as Alexy may want to show his home city to his audience who may or may not have been there adding a 'hidden' layer to his images. Him knowing this place already adds the "layers" of contextual meaning that he explains to his images. A "story" in Alexys case is "to share [his] emotions" that he experienced in a particular place. He uses the technical advances of the camera shutter (and the camera as a whole) to his advantage to represent his story in and artistic way personifying his emotions. Using his camera as a way to project his feelings and emotions.

Despite their differences, both Alexy and Muybridge have been pioneers of their craft, inspiring audiences throughout many generations. They both experimented and pushed the manual camera to its limit creating images and stories that contrast each other but are both technically beautiful. Titarenko creates shadows and stories through continuous movement, showing their individual paths, the different routes which they take, possibly referring to the different routes people take in life. Telling a story in a personal instance rather than scientific like Muybridge who uses his photography for scientific purposes rather than personal. Both these photographers show the importance of experimentation and using the camera to show a discovery or story, whether that of just movement or using moving objects as a metaphor for something bigger, showing variation of the idea of a "story" in photography.

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